CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

AGENDA
REGULAR MEETING
BOARD OF WATER COMMISSIONERS
Tuesday, December 6, 2016 – 9:30 a.m.
MARGARET H. CHANDLER WATER RECLAMATION PLANT
399 CHANDLER PLACE
San Bernardino, California

BOARD OF WATER COMMISSIONERS

TONI CALLICOTT
President

Commissioners
LOUIS A. FERNANDEZ
WAYNE HENDRIX, P.E.
JUDITH VALLES
DAVID E. MLYNARSKI

STACEY R. ALDSTADT
General Manager
ROBIN L. OHAMA
Deputy General Manager
MIGUEL GUERRERO, P.E.
Director of Water Utility
JOHN A. CLAUS
Director of Water Reclamation
TERRI WILLOUGHBY
Director of Finance
JENNIFER L. SHEPARDSON
Director of Environmental & Regulatory Compliance

"Trusted, Quality Service since 1905"

Welcome to a meeting of the Board of Water Commissioners of the City of San Bernardino.

- The City of San Bernardino Municipal Water Department recognizes its obligation to provide equal access to those individuals with disabilities. Please contact the General Manager's Office (909-384-5191) two working days prior to the meeting for any requests for reasonable accommodation, to include interpreters.
- All documents for public review are on file with the Water Department located on the 5th floor of City Hall, 300 North "D" Street, San Bernardino or may be accessed online at http://www.ci.san-bernardino.ca.us/water/newsalerts/agendas_n_minutes.asp
- Please turn off or mute your cell phone while the meeting is in session.
- Any member of the public desiring to speak to the Board of Water Commissioners concerning any matter not on the agenda, but which is within the subject matter jurisdiction of the Board of Water Commissioners, may address the body at the end of the meeting during the period reserved for public comments. Said total period for public comments shall not exceed forty-five (45) minutes, unless such time limit is extended by the Board of Water Commissioners. A three-minute limitation shall apply to each member of the public, unless such time limit is extended by the Board of Water Commissioners. No member of the public shall be permitted to "share" his/her three minutes with any other member of the public.
- The Board of Water Commissioners may refer any item raised by the public to staff for appropriate action or have the item placed on the next agenda of the Board of Water Commissioners. However, no other action shall be taken nor discussion held by the Board of Water Commissioners on any item which does not appear on the agenda unless the action is otherwise authorized in accordance with the provisions of subdivision (b) of Section 54954.2 of the Government Code.
- Public comments will not be received on any item on the agenda when a public hearing has been conducted and closed.

CALL TO ORDER: _____a.m./p.m.

Attendee Name	Present	Absent	Late	Arrived
President Toni Callicott				
Commissioner Louis Fernández				
Commissioner Wayne Hendrix				
Commissioner Judith Valles				
Commissioner David E. Mlynarski				
General Manager Stacey Aldstadt				
Deputy General Manager Robin Ohama				
Director of WRP John Claus				
Director of WU Miguel Guerrero				
Director of Finance Terri Willoughby				
Director of ERC Jennifer Shepardson				

OTHERS:

1. CLOSED SESSION: _____ a.m./p.m.

Pursuant to Government Code Section(s):

A. Conference with legal counsel – existing litigation – pursuant to paragraph (1) of subdivision (d) of Government Code Section 54956.9: *In Re City of San Bernardino, California,* United States Bankruptcy Court, Central District of California (Riverside), Case No. 6: 12-bk-28006-MJ. *City of San Bernardino v. San Bernardino Valley Municipal Water District, et al.*, San Bernardino County Superior Court Case No. CIVDS1605532. *City of San Bernardino v. East Valley Water District*, San Bernardino Superior Court Case No. CIVDS 1608620.

B. Conference with legal counsel – anticipated litigation – significant exposure to litigation pursuant to paragraph (2) or (3) of subdivision (d) of Government Code Section 54956.9.

C. Conference with legal counsel – anticipated litigation – initiation of litigation – pursuant to paragraph (4) of subdivision (d) of Government Code Section 54956.9.

D. Public Employment pursuant to Government Code Section 54957.

E. Consultation with legal counsel and security consultant on matters posing a threat to the security of essential public services, including water, drinking water, and wastewater treatment pursuant to Government Code Section 54957.

F. Conference with labor negotiator – pursuant to Government Code Section 54957.6.

END OF CLOSED SESSION
RECONVENE MEETING

CALL TO ORDER: _____a.m./p.m.

Attendee Name	Present	Absent	Late	Arrived
President Toni Callicott				
Commissioner Louis Fernández				
Commissioner Wayne Hendrix				
Commissioner Judith Valles				
Commissioner David E. Mlynarski				
General Manager Stacey Aldstadt				
Deputy General Manager Robin Ohama				
Director of WRP John Claus				
Director of WU Miguel Guerrero				
Director of Finance Terri Willoughby				
Director of ERC Jennifer Shepardson				

OTHERS:

2. ANNOUNCEMENTS BY MEMBERS OF THE BOARD OF WATER COMMISSIONERS:

3. CONSENT CALENDAR

MOTION: That the motions indicated by consent calendar items 3A through 3E be adopted, except for _____.

MOTION:_____ SECONDED:_____

A. WAIVE FULL READING OF RESOLUTIONS

MOTION: That full reading of the resolutions on the regular or supplemental agendas of the Board of Water Commissioners be waived.

B. PAYROLL

MOTION: Approve the payroll for pay periods November 14, 2016 through November 27, 2016 and November 28, 2016 through December 11, 2016.

C. CONTRACTS AND BILLS

MOTION: Approve the payment of contracts and bills to be presented at this meeting.

D. MINUTES

MOTION: Approve the minutes of the meeting of November 15, 2016 of the Board of Water Commissioners.

E. PERSONNEL ACTION - APPOINTMENT: James Ramer, Water Utility Worker II, Range 138, Section 3021, effective December 5, 2016. This position is in the budget and based on the needs and staffing for this section, the position is still justifiable under the budget.

MOTION: Approve the Personnel Action as submitted.

END OF CONSENT CALENDAR

4. ADDITIONS TO THE AGENDA: (if any) in accordance with Section 54954.2 (b) (2) of the Government Code (Brown Act), a two-thirds vote (or a unanimous vote if less than two-thirds are present) is required to add an item for action provided that there is a need to take immediate action and that the need for action came to the attention of the agency after the agenda was posted.

MOTION: Approve an additional item(s) to be added to the agenda in accordance with Government Code Section 54954.2(b) (2).

MOTION:_____ SECONDED:_____

5. AWARD OF CONTRACT – FURNISH ANALYTICAL SERVICES RELATED TO PUBLIC WATER SUPPLY AND/OR WATER RECLAMATION PROJECT – SPECIFICATION NO. 1659: The Department's Water Reclamation (WR) and Water Utility (WU) divisions currently contract for laboratory analytical services related to public water supply and wastewater discharge. Most of the constituents requiring testing are the same for both WR and WU. However, there are some special considerations with regard to process control and electronic deliverables, work relationships, and industry knowledge. As such, the laboratory workload for both WR and WU was combined into one Request for Proposal (RFP) to eliminate duplication of effort, potentially resulting in lower overall laboratory costs to the Department.

Five (5) laboratories responded to Specification No. 1659, "to furnish analytical services related to public water supply and/or water reclamation, located in San Bernardino, CA."

MOTION: Accept the bid of EUROFINS EATON ANALYTICAL, INC., as the lowest responsive, responsible bidder and award a contract in accordance with Specification No. 1659; and authorize the President and Secretary to execute the contract.

MOTION:_____ SECONDED:_____

6. AWARD OF CONTRACT – JANITORIAL SERVICES AT THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT FACILITIES – SPECIFICATION NO. 1662: Two (2) bids were received and opened on November 2, 2016, for Specification No. 1662, "Furnish all labor, equipment, and materials for Janitorial Services at the City of San Bernardino Municipal Water Department Facilities Project, located in San Bernardino, CA."

Water Department sections are currently housed in different locations. Water Utility and Water Reclamation originally utilized in-house janitorial services until retirements occurred at different times, and then outsourced the work to individual vendors. Customer Service still utilizes Facilities Maintenance at City Hall, while the leased facility at 444 West Rialto Avenue uses an outsourced vendor, as does the Administration building at 397 Chandler Place. Specification No. 1662 was issued for a contractor to provide janitorial services for the maintenance of multiple facilities. Cleaning services are to be conducted five (5) days per week at each location. This project consists of a bi-annual contract for these services.

The funding source for this project is the FY 2016/2017 Operations and Maintenance Budget; the fourteen (14) sites individually charge monthly maintenance to their operations and maintenance accounts.

MOTION: Accept the bid of Avalon Building Maintenance of the Inland Empire, as the lowest responsive, responsible bidder and award a contract in the amount of SEVENTY SIX THOUSAND FIVE HUNDRED SIXTY AND 00/100 DOLLAS ($76,560.00) PER ANNUM to provide janitorial services for a two (2) year term with two (2) one (1) year options to renew in accordance with Specification No. 1662; and authorize the President and Secretary to execute the contract.

7. PRESENTATION OF THE RESULTS OF THE FISCAL YEAR 2015-16 AUDIT AND COMPREHENSIVE ANNUAL FINANCIAL REPORT; DAVIS FARR, LLP: On December 6, 2016, Jennifer Farr, Partner in the firm of Davis Farr LLP, will present and distribute to the Board of Water Commissioners the annual audit report for the City of San Bernardino Municipal Water Department for the fiscal year ended June 30, 2016.

MOTION: Approve the annual audit and financial report for the City of San Bernardino Municipal Water Department for the fiscal year ended June 30, 2016.

MOTION:_____ SECONDED:_____

8. REPORT ON WATER DEPARTMENT INVESTMENTS – QUARTER ENDING SEPTEMBER 30, 2016: Staff recommends that the Board of Water Commissioners receive and file the Investment Report for the quarter ending September 30, 2016.
(INFORMATION ITEM ONLY)

9. REPORTS:

A. Report of the President:

B. Report of the Commissioners:

C. Report of the Directors:

D. Report of the General Manager:

10. PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA:

11. ADJOURNMENT: The meeting adjourned at _____ a.m./p.m.

NOTE: The next regular meeting of the Board of Water Commissioners is scheduled for *9:30 a.m., December 20, 2016* in the Margaret H. Chandler Water Reclamation Plant Conference Room, 399 Chandler Place, San Bernardino, California, 92408.

MINUTES
BOARD OF WATER COMMISSIONERS OF THE CITY OF SAN BERNARDINO

REGULAR MEETING
November 15, 2016
Margaret H. Chandler Water Reclamation Plant
399 Chandler Place
San Bernardino, California
9:30 a.m.

The Regular Meeting of the Board of Water Commissioners of the City of San Bernardino was called to order by President Callicott at 9:30 a.m. on November 15, 2016 in the Margaret H. Chandler Water Reclamation Plant, 399 Chandler Place,San Bernardino, California.

ROLL CALL: Roll call was taken by the Secretary with the following being present: President Callicott; Commissioners Valles, Fernández, and Hendrix; staff Aldstadt, Ohama, Claus, Guerrero, and Shepardson; Jason Ewert, City Attorney's Office; Russell Randle, Squire Patton Boggs; Andrew Hitchings, Somach, Simmons & Dunn; Patrick Sanchez, Sr. Business Systems Analyst; Amy Smith, Executive Secretary.

Absent: Commissioner Mlynarski
Director Willoughby

1. CLOSED SESSION: President Callicott adjourned the Regular Meeting of the Board of Water Commissioners to a Closed Session. At 9:52 a.m., the Regular Meeting of the Board of Water Commissioners was recessed and a Closed Session was called to order in accordance with the following Government Code Sections:

   A. Conference with legal counsel – existing litigation – pursuant to paragraph (1) of subdivision (d) of Government Code Section 54956.9: *In Re City of San Bernardino, California,* United States Bankruptcy Court, Central District of California (Riverside), Case No. 6: 12-bk-28006-MJ. *City of San Bernardino v. San Bernardino Valley Municipal Water District, et al.*, San Bernardino County Superior Court Case No. CIVDS1605532. *City of San Bernardino v. East Valley Water District*, San Bernardino Superior Court Case No. CIVDS 1608620.

   No action was taken at this time.

   ROLL CALL: President Callicott; Commissioners Valles, Fernández, and Hendrix; staff Aldstadt, Ohama, Claus, Guerrero, and Shepardson; Jason Ewert, City Attorney's Office; Russell Randle, Squire Patton Boggs; Andrew Hitchings, Somach Simmons & Dunn; Amy Smith, Executive Secretary.

   Absent: Commissioner Mlynarski
   Director Willoughby

ADJOURN CLOSED SESSION: At 11:08 a.m., the Closed Session of the Board of Water Commissioners adjourned to the Regular Meeting of the Board of Water Commissioners in the Water Department Board Room.

ROLL CALL: President Callicott; Commissioners Valles, Fernández, and Hendrix; staff Aldstadt, Ohama, Claus, Guerrero, and Shepardson; Jason Ewert, City Attorney's Office; Russell Randle, Squire Patton Boggs; Andrew Hitchings, Somach Simmons & Dunn; Amy Smith, Executive Secretary.

Absent: Commissioner Mlynarski
Director Willoughby

2. ANNOUNCEMENTS BY MEMBERS OF THE BOARD OF WATER COMMISSIONERS: None

3. CONSENT CALENDAR: Upon motion by Commissioner Valles, duly seconded by Commissioner Fernández, it was voted to approve the following Consent Calendar, Agenda Items 3A through 3G:

A. WAIVE FULL READING OF RESOLUTIONS: Waive full reading of the resolutions on the regular or supplemental agendas of the Board of Water Commissioners.

B. PAYROLL

	Water Fund	Sewer Fund	Total
Claims: 274224-274485 Accounts Payable	$724,861.21	$1,607,222.52	$2,333,083.73
Gross Payroll 10/17/16-10/30/16	244,749.98	190,562.77	435,312.75
TOTALS	$970,611.19	$1,797,785.29	$2,768,396.48

Payroll for the pay period October 31, 2016 through November 13, 2016.

C. CONTRACTS AND BILLS: Contracts and bills presented at this meeting.

D. MINUTES: Minutes for November 1, 2016.

E. 1. PROMOTION: Mark Chavarria, Water Utility Worker I, Range 132, to Water Utility Worker II, Range 138, effective November 14, 2016. This position is in the budget and based on the needs and staffing for this section, the position is still justifiable under the budget.

2. PROMOTION: Daniel Silva, Water Utility Worker II, Range 138, to Water Utility Worker III, Range 142, effective November 14, 2016. This position is in the budget and based on the needs and staffing for this section, the position is still justifiable under the budget.

F. NEW JOB DESCRIPTION AND RANGE CHANGE FOR EXECUTIVE ASSISTANT TO THE GENERAL MANAGER AND RECLASSIFICATION OF INCUMBENT; NEW JOB DESCRIPTION FOR SENIOR ADMINISTRATIVE/CONTRACTS ANALYST AND RECLASSIFICATION OF ONE SENIOR ADMINISTRATIVE COORDINATOR POSITION AND INCUMBENT; AND REVISED JOB DESCRIPTION FOR FLEET/WAREHOUSE SUPERVISOR: The Department retained Rhonda Strout-Garcia of HR Dynamics to update the Executive Secretary and Senior Administrative Coordinator positions in the Administration division as well as the Fleet/Warehouse Supervisor position. The incumbents in these three positions were assigned work outside the scope of their current job descriptions.

Job analysis questionnaires and interviews were conducted and the job descriptions have been revised based upon the increased duties and responsibilities assigned to these positions. Since these new classifications are unique single-class positions, they did not require approval from the Civil Service Board. The job description for Fleet/Warehouse Supervisor has been revised to reflect additional duties currently performed. The minimum qualification, testing standards, and salary range remained the same.

There was no fiscal impact associated with these changes in the 2016/17 budget year. The Management/Confidential Salary Schedule was updated to reflect the above changes.

The Board of Water Commissioners approved the new job description for Executive Assistant to the General Manager and reclassification of the Executive Secretary position and incumbent, Amy Smith, from Executive Secretary, Section 1050, Management/Confidential unit, FLSA Exempt, Range 304 ($5,121.51/mo. to $7,155.37/mo.) to Executive Assistant to the General Manager, Section 1050, Management/Confidential unit, FLSA Exempt, Range 306 ($5,647.47/mo. to $7,888.80/mo.).

The new job description for Senior Administrative/Contracts Analyst and reclassification of one (1) Senior Administrative Coordinator position and incumbent, Sydney Morrison, from Senior Administrative Coordinator, Section 1055, Management/Confidential unit, FLSA Exempt, Range 302 ($4,645.36/mo. to $6,490.14/mo.) to Senior Administrative/Contracts Analyst, Section 1055, Management/Confidential unit, FLSA Exempt, Range 309 (6,326.70/mo. to $8,839.17/mo.).

The revised job description for Fleet/Warehouse Supervisor.

G. PAY RATE CHANGE FOR STUDENT INTERN DUE TO MINIMUM WAGE INCREASE: On April 4, 2016 Senate Bill No. 3 amending Section 1182.12 of the Labor Code was approved increasing the California minimum wage in increments annually until it reaches $15 per hour in 2022. The minimum wage increases from $10 per hour to $10.50 per hour effective January 1, 2017. Student Interns are the only positions within the Department currently paid at the rate of $10 per hour.
The General, Mid-Management, Part-Time Salary Schedule was revised to reflect this change. This change was included in the 2016/17 budget.

The Board of Water Commissioners approved the pay rate change for the classification of Student Intern (91903) from $10 to $10.50 per hour effective January 1, 2017.

END OF CONSENT CALENDAR

4. ADDITIONS TO THE AGENDA: None.

5. APPROVAL OF AGREEMENT WITH PENCE CONSTRUCTION, INC. FOR DESIGN BUILD SERVICES/CUSTOMER SERVICE RELOCATION PROJECT AT 1350 SOUTH "E" STREET: In January 2016, the Department began planning for relocation of its Customer Service, Cashiering and Field and Meter Service sections from City Hall to facilities at 1350 South "E" Street. This process was necessitated by the City's planned seismic retrofit of City Hall, which requires that all personnel relocate to other buildings while the City Hall building undergoes structural modifications.

In October 2016, the Department issued a Request for Proposal (RFP) (Specification 1663) for Design Build Services for the Customer Service Relocation project at 1350 South E Street. Out of the five (5) prequalified contractors, two (2) contractors submitted proposals in response to the RFP. As a result of staff review and ranking of the proposals, the firm with the highest overall score was Pence Construction, Inc. Pence Construction, Inc. has extensive experience with similar projects and demonstrated a thorough understanding of the project requirements in its proposal and the accelerated time schedule for completion.

This project was budgeted in the Fiscal Year 2016/2017 Capital Improvement Budgets for Water and Water Reclamation, contingent on the issuance of revenue bonds, and was included in the Department's revenue bond issuance as presented to the Board on October 4, 2016 (Water Utility) and October 18, 2016 (Water Reclamation Utility).

Upon motion by Commissioner Hendrix, duly seconded by Commissioner Valles, it was unanimously voted approve a design-build agreement with Pence Construction, Inc. with a Guaranteed Maximum Price (GMP) of $4,239,111.00 for the Customer Service Relocation Project at 1350 South "E" Street. The General Manager was authorized to negotiate final contract terms and conditions upon completion of architectural design and to execute the contract.

6. OCTOBER 2016 DROUGHT MONITORING REPORT: This report continued to monitor and track the effects of the ongoing drought by monitoring groundwater levels in select wells located in the Department's service area. This monthly report provided valuable data needed to contemplate important policy decisions related to Water Supply Shortage Stages outlined in Rule and Regulation No. 21. **(INFORMATION ONLY)**

7. REPORTS:

   A. Report of the President: None

   B. Report of the Commissioners: None

   C. Report of the Directors: None

D. Report of the General Manager:

1. General Manager Aldstadt reported that the revised City Charter passed, and the Department will assume responsibility of the City's sewer collection system.

2. General Manager Aldstadt reported that Terri Willoughby, Finance Director, will have information regarding the sale of our water bonds at the next Board meeting.

8. PUBLIC COMMENTS: This is the time specified for public comments concerning specific items not on the agenda or matters of general interest. There being none, the matter was closed.

9. ADJOURN MEETING: The meeting adjourned at 11:09 a.m. to the next Regular Meeting to be held on Tuesday, November 15, 2016, at 9:30 a.m. in the Margaret H. Chandler Water Reclamation Plant Conference Room, 399 Chandler Place, San Bernardino, California, 92408.

BY: _____
TONI CALLICOTT
President

BY: _____
ROBIN L. OHAMA
Deputy City Clerk & Ex-Officio Secretary

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

BOARD OF WATER COMMISSIONERS
STAFF REPORT

RECEIVED
NOV 22 2016
@
BOARD
HUMAN RESOURCES

TO: Stacey R. Aldstadt, General Manager

FROM: Miguel Guerrero, Director, Water Utility

SUBJECT: **PERSONNEL ACTION – APPOINTMENT OF JAMES RAMER TO WATER UTILITY WORKER II (SECTION 3021)**

DATE: November 21, 2016

COPIES: Tim Connor, Sally Duran, Human Resources

BACKGROUND:

Selection interviews were conducted on October 20, 2016 by Tim Potter, Ralph Ramos, and Richard Flores to fill one existing vacancy in Water Utility Distribution Service and Repair (Section 3021) for the position of Water Utility Worker II. The position is in the budget. I have reviewed the needs of and staffing for this section and believe, based on those, that the position is still justifiable under the budget. The panel is recommending the appointment of James Ramer to fill the position.

RECOMMENDATION:

Staff recommends that the Board of Water Commissioners make the following motion:

> **Approve the appointment of James Ramer to the position of Water Utility Worker II, Range 138, effective December 5, 2016.**

Respectfully submitted,

Miguel J. Guerrero, P.E.
Director, Water Utility

MJG:jgt

W:\3010 WU Administration\WUPersonnel\General\JobRecruitments\BoardMemos\Appt Memo WUWII James Ramer 11-21-16.doc

Agenda Item 3E

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

NOV 17 2016

BOARD OF WATER COMMISSIONERS
STAFF REPORT

TO: Stacey R. Aldstadt, General Manager

FROM: Jennifer Shepardson, Director of Environmental and Regulatory Compliance

SUBJECT: **AWARD OF CONTRACT – FURNISH ANALYTICAL SERVICES RELATED TO PUBLIC WATER SUPPLY AND/OR WATER RECLAMATION PROJECT - SPECIFICATION NO. 1659**

DATE: November 17, 2016

CC: J. Claus, M. Guerrero, C. Arrieta, M. Honis, Laserfiche

BACKGROUND:

The Department's Water Reclamation (WR) and Water Utility (WU) divisions currently contract for laboratory analytical services related to public water supply and wastewater discharge. Most of the constituents requiring testing are the same for both WU and WR. However, there are some special considerations with regard to process control and electronic deliverables, work relationships (different regulatory agencies involved), and industry knowledge. As such, the laboratory workload for both WU and WR was combined into one Request for Proposal (RFP) to eliminate duplication of effort, potentially resulting in lower overall laboratory costs to the Department.

Specifications were advertised on July 8, 2016, to FURNISH ANALYTICAL SERVICES RELATED TO PUBLIC WATER SUPPLY AND/OR WATER RECLAMATION, LOCATED IN SAN BERNARDINO, CALIFORNIA. The Specifications were provided to laboratories through the Department's automated online bidding system, PlanetBids. Prospective service providers were required to submit a specific list of documentation including, but not limited to, the two (2) latest audits from the National Environmental Laboratory Accreditation Program (NELAP), and copies of the last four (4) Water Supply and Water Pollution studies as appropriate for the services to be provided. The specifications listed an estimated number of analyses for which individual tests costs were to be supplied. The number of analyses in any given year can vary based on permit conditions or other regulatory issues, so a fixed price was not requested.

Agenda Item 5

SUBJECT: AWARD OF CONTRACT - FURNISH ANALYTICAL SERVICES RELATED TO PUBLIC WATER SUPPLY AND/OR WATER RECLAMATION PROJECT – SPECIFICATION NO. 1659

The five (5) laboratories that responded to the specification are listed below:

LABORATORY'S NAME	LOCATION
EUROFINS EATON ANALYTICAL, INC.	MONROVIA
BABOCK LABORATORIES, INC.	RIVERSIDE
BSK ASSOCIATES	SAN BERNARDINO
TEST AMERICA	NORTH CANTON, OH
WECK ANALYTICAL ENVIRONMENTAL LABORATORIES, INC.	CITY OF INDUSTRY

As a result of staff review and ranking of the proposals and interviews, the laboratory with the highest overall rating was Eurofins Eaton Analytical, Inc. The proposal from Eurofins Eaton Analytical, Inc. met all of the specification's requirements. Their qualifications, certifications, quality assurance documents, and all other required information have been reviewed and found to be acceptable.

RECOMMENDATION:

Staff recommends that the Board of Water Commissioners make the following motion:

- Accept the bid of Eurofins Eaton Analytical, Inc., as the lowest responsive, responsible bidder, and award a contract in accordance with Specification No. 1659 to FURNISH ANALYTICAL SERVICES RELATED TO PUBLIC WATER SUPPLY AND/OR WATER RECLAMATION, and authorize the President and Secretary to execute the contract.

Respectfully submitted,

Jennifer Shepardson
Director of Environmental and Regulatory Compliance

FEES

We are pleased to submit the enclosed fee proposals for the next laboratory services contract. Eurofins would welcome award for either or both Water and Reclamation laboratory contracts. Prices remain as presented and are not contingent upon award of one or the other contract or both.

Fees for non-analytical services are as follows:

Item	Unit Price
Sample Kit	No Charge
Sample Kit Delivery (normal business hours)	No Charge
Sample Kit Delivery (after hours, weekends, holidays)	No Charge
Sample Pick Up (normal business hours)	No Charge
Sample Pick Up or Drop Off (after hours, weekends, holidays)	No Charge
Hardcopy Reports	No Charge
Electronic Data Deliverables in PDF, GWIS, EQuIS	No Charge
Electronic Data Transfer to DDW, EPA or Geotracker	No Charge
Web Access and Online Data Management	No Charge
Field Sampler Training (Contact Hours credit)	No Charge
Regulatory Training (Contact Hours credit)	No Charge

Below is our single add-on request to the City's Laboratory Contract agreement. Since we cannot incorporate the risk of unforeseeable damages into our prices, we request the addition of the following to this section to Section 17:

> *Notwithstanding any other provisions herein to the contrary, Laboratory shall not be obligated to indemnify SBMWD for liabilities to the extent caused by the Indemnitee's negligent acts or omissions. Laboratory's maximum liability under this Agreement or any other attachments hereto, whether based in contract, tort, warranty, negligence or otherwise, shall not exceed the total amount paid by SBMWD to Laboratory under the applicable order giving rise to such liability or $1,000,000 in the aggregate, whichever is greater. In no event shall Laboratory be liable to SBMWD for any special, indirect, or consequential damages under this Agreement.*

We are prepared to accept the City's terms as is without change but we would appreciate your consideration of the requested changes.

Thank you again for your consideration and the opportunity to continue to serve and support the City of San Bernardino.

ATTACHMENT "A"
WATER UTILITY
PART 1
ESTIMATED ANNUAL ANALYTICAL NEEDS

ANALYTICAL TEST	EUROFINS TEST METHOD	QUANTITY PER YEAR				UNIT PRICE	TOTAL PRICE
		1st (2016)	2nd (2017)	3rd (2018)	4th (2019)		
Bacteriological Testing							
Colilert 18 Hr QT	SM 9223B	10,000	10,000	10,000	10,000	$ 6	$ 240,000
Colilert 18 Hr P/A	SM 9223B	0	0	0	0	$ 10	$ -
Colilert 24 Hr P/A	SM 9223B	0	0	0	0	$ 10	$ -
HPC		10,000	10,000	10,000	10,000	$ 3	$ 120,000
Cl_2 (data entry)	SM 9215B	6,000	6,000	6,000	6,000	$ -	$ -
MPN-MTF	SM 9221	0	0	0	0	$ 15	$ -
General Mineral							
Bicarbonate Alkalinity	SM 2320B	0	60	0	0	$ 10	$ 600
Calcium	EPA 200.7	60	120	60	60	$ 5	$ 1,500
Carbonate Alkalinity	SM 2320B	0	60	0	0	Incl w/Bicarb	Incl w/Bicarb
Chloride	EPA 300.0	60	120	60	60	$ 5	$ 1,500
Corrosivity	SM 2330B	0	60	0	0	Incl w/Bicarb	Incl w/Bicarb
Hydroxide Alkalinity	SM 2320B	0	60	0	0	Incl w/Bicarb	Incl w/Bicarb
Magnesium	EPA 200.7	60	120	60	60	$ 5	$ 1,500
Sodium	EPA 200.7	60	120	60	60	$ 5	$ 1,500
Sulfate	EPA 300.0	60	120	60	60	$ 5	$ 1,500
Total Hardness	SM 2340B	60	120	60	60	Incl w/Ca	Incl w/Ca
General Physical							
Color	SM 2120B	816	876	816	816	$ 3	$ 9,972
Foaming Agents (MBAS)	SM 5540C	12	72	12	12	$ 20	$ 2,160
Odor-Threshold	SM 2150B	816	876	816	816	$ 5	$ 16,620
pH	SM 4500H-B	816	876	816	816	$ 2	$ 6,648
Specific Conductance	SM 2510B	0	60	0	0	$ 10	$ 600
Total Dissolved Solids (TDS)	EPA 160.1	60	120	60	60	$ 10	$ 3,000
Turbidity	EPA 180.1	816	876	816	816	$ 2	$ 6,648
Temperature (data entry)	-----	816	876	816	816	No Charge	No Charge
Inorganic Chemicals							
Aluminum	EPA 200.8	52	112	52	52	$ 5	$ 1,340
Antimony	EPA 200.8	0	60	0	0	$ 10	$ 600
Arsenic	EPA 200.8	36	69	36	36	$ 15	$ 2,655
Asbestos	EPA 100.1	0	1	0	0	$ 200	$ 200
Barium	EPA 200.8	0	60	0	0	$ 10	$ 600
Beryllium	EPA 200.8	0	60	0	0	$ 10	$ 600
Cadmium	EPA 200.8	0	60	0	0	$ 10	$ 600
Chromium (total)	EPA 200.8	0	60	0	0	$ 10	$ 600
Hexavalent Chromium	EPA 218.6	0	60	0	0	$ 25	$ 1,500
Copper	EPA 200.8	0	60	0	0	$ 10	$ 600
Cyanide	SM 4500CN-F	0	60	0	0	$ 20	$ 1,200
Fluoride	SM 4500F-C	0	60	0	0	$ 10	$ 600
Iron	EPA 200.7	52	112	52	52	$ 10	$ 2,680
Hardness (CaCO3)	SM 2340B	84	84	84	84	$ 10	$ 3,360
Lead	EPA 200.8	0	60	0	0	$ 10	$ 600
Manganese	EPA 200.8	52	112	112	52	$ 10	$ 3,280
Mercury	EPA 245.1	0	60	0	0	$ 25	$ 1,500

ANALYTICAL TEST	EUROFINS TEST METHOD	QUANTITY PER YEAR				UNIT PRICE	TOTAL PRICE
		1st (2016)	2nd (2017)	3rd (2018)	4th (2019)		
Nickel	EPA 200.8	0	60	0	0	$ 10	$ 600
Nitrate (as NO3)	EPA 300.0	2,000	2,200	2,000	2,000	$ 8	$ 65,600
Nitrate (as Nitrogen)	EPA 300.0	2,000	2,200	2,000	2,000	$ -	$ -
Nitrite (as Nitrogen)	EPA 300.0	0	60	0	0	$ 10	$ 600
Nitrate + Nitrite (as Nitrogen)	EPA 300.0	0	60	0	0	$ 10	$ 600
Perchlorate	EPA 314	0	0	0	0	$ 25	$ -
Perchlorate (low level)	EPA 331	444	504	444	444	$ 40	$ 73,440
Selenium	EPA 200.8	0	60	0	0	$ 10	$ 600
Silver	EPA 200.8	0	60	0	0	$ 10	$ 600
Thallium	EPA 200.8	0	60	0	0	$ 10	$ 600
Zinc	EPA 200.8	0	60	0	0	$ 10	$ 600
SOCs (regulated)							
Alachlor	EPA 505	0	1	0	0	$ 125	$ 125
Atrazine	EPA 525.2	0	1	0	0	$ 200	$ 200
Bentazon	EPA 515.4	0	1	0	0	$ 125	$ 125
Benzo(a)pyrene	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Carbofuran	EPA 531.2	0	1	0	0	$ 125	$ 125
Chlordane	EPA 505	0	1	0	0	Incl w/505	Incl w/505
2,4-D	EPA 515.4	0	1	0	0	Incl w/515	Incl w/515
Dalapon	EPA 515.4	0	1	0	0	Incl w/515	Incl w/515
Di (2-ethylhexyl)adipate	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Di (2-ethylhexyl)phthalate	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Dibromochloropropane (DBCP)	EPA 551.1	0	60	0	0	$ 50	$ 3,000
Dinoseb	EPA 515.4	0	1	0	0	Incl w/515	Incl w/515
Diquat	EPA 549.2	0	1	0	0	$ 125	$ 125
Endothall	EPA 548.2	0	1	0	0	$ 125	$ 125
Endrin	EPA 505	0	1	0	0	Incl w/505	Incl w/505
Ethylene Dibromide (EDB)	EPA 551.1	0	60	0	0	Incl w/551	Incl w/551
Glyphosate	EPA 547	0	1	0	0	$ 125	$ 125
Heptachlor	EPA 505	0	1	0	0	Incl w/505	Incl w/505
Heptachlor Epoxide	EPA 505	0	1	0	0	Incl w/505	Incl w/505
Hexachlorobenzene	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Hexachlorocyclopentadiene	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Lindane	EPA 505	0	1	0	0	Incl w/505	Incl w/505
Methoxychlor	EPA 505	0	1	0	0	Incl w/505	Incl w/505
Molinate	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Oxamyl (Vydate)	EPA 531.2	0	1	0	0	Incl w/531	Incl w/531
Pentachlorophenol	EPA 515.4	0	1	0	0	Incl w/515	Incl w/515
Picloram	EPA 515.4	0	1	0	0	Incl w/515	Incl w/515
Polychlorinated Biphenyls (PCBs)	EPA 505	0	1	0	0	Incl w/505	Incl w/505
Simazine	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Thiobencarb	EPA 525.2	0	1	0	0	Incl w/525	Incl w/525
Toxaphene	EPA 505	0	1	0	0	Incl w/505	Incl w/505
2,3,7,8-TCDD (Dioxin)	EPA 1613	0	1	0	0	$ 250	$ 250
2,4,5-TP (Silvex)	EPA 515.4	0	1	0	0	Incl w/515	Incl w/515
VOCs							
Full VOC	EPA 524.2	800	820	800	800	$ 40	$ 128,800
TCE/PCE	EPA 524.2	400	400	400	400	$ 30	$ 48,000
MTBE@VOASAN	EPA 524.2	52	52	52	52	$ 30	$ 6,240
1,2,3-Trichloropropane	EPA 524.2m	60	120	0	0	$ 75	$ 13,500
IX Resin Change							
N-Nitrosodimethylamine (NDMA)	EPA 521	10	10	10	10	$ 125	$ 5,000

ANALYTICAL TEST	EUROFINS TEST METHOD	QUANTITY PER YEAR				UNIT PRICE	TOTAL PRICE
		1st (2016)	2nd (2017)	3rd (2018)	4th (2019)		
Lead & Copper (Distr. System)	EPA 200.8	0	0	75	0	$ 30	$ 2,250
Full Title 22 for new wells	various	0	2	0	0	$ 2,000	$ 4,000
Total Trihalomethanes (THMs)	EPA 551.1/524.2	20	20	20	20	$ 40	$ 3,200
HAA5s	SM 6251B	12	12	12	12	$ 60	$ 2,880
Radiological (not req'd annually)							
Gross Alpha	EPA 900.0	1	1	1	30	$ 35	$ 1,155
Radium 226	GA Method	0	0	0	1	$ 150	$ 150
Radium 228	GA Method	0	0	0	1	$ 150	$ 150
Uranium	EPA 200.8	0	0	0	0	$ 50	$ -
Strontium 90	EPA 905.0	0	0	0	0	$ 100	$ -
USEPA Required Monitoring Site-Wide Monitoring							
VOCs	EPA 524.2	310	310	310	310	$ 40	$ 49,600
VOC (1/2 MRL)	EPA 524.2	56	56	56	56	$ 40	$ 8,960
Region 9 Superfund Tier 3 Evaluation/Validation req'd	EPA 524.2	10	16	10	16	$ 25	$ 1,300
Performane Evaluation	EPA 524.2/200.8	1	1	1	1	No Charge	No Charge
NPDES Wellhead Treatment							
VOC	EPA 624/8260	40	40	40	40	$ 40	$ 6,400
Total Residual Chlorine	SM 4500CL-G	40	40	40	40	$ 5	$ 800
Total Suspended Solids	SM 2540D	40	40	40	40	$ 10	$ 1,600
Total Inorganic Nitrogen	various	40	40	40	40	$ 20	$ 3,200
pH	SM 4500H-B	40	40	40	40	$ 2	$ 320
Field Temperature (data entry)	-----	40	40	40	40	No Charge	No Charge
TDS	EPA 160.1	40	40	40	40	$ 5	$ 800
Hardness	SM 2340B	40	40	40	40	$ 10	$ 1,600
EPA Priority Pollutants	various	0	0	2	0	$ 500	$ 1,000
NPDES Geothermal							
Selenium	EPA 200.8	2	2	2	2	$ 10	$ 80
Mercury		2	2	2	2	$ 25	$ 200
Arsenic	EPA 200.8	2	2	2	2	$ 10	$ 80
Field Temperature (data entry)	-----	2	2	2	2	No Charge	No Charge
pH	SM 4500H-B	2	2	2	2	$ 2	$ 16
Total Hardness	SM 2340B	2	2	2	2	$ 10	$ 80
TDS	EPA 160.1	2	2	2	2	$ 10	$ 80
Chloride	EPA 300.0	2	2	2	2	$ 10	$ 80
Sodium	EPA 200.7	2	2	2	2	$ 10	$ 80
Boron	EPA 200.7	2	2	2	2	$ 10	$ 80
Fluoride	SM 4500F-C	2	2	2	2	$ 10	$ 80
Lead	EPA 200.8	2	2	2	2	$ 10	$ 80
Copper	EPA 200.8	2	2	2	2	$ 10	$ 80
EPA Priority Pollutants	various	0	0	0	2	$ 500	$ 1,000
							$ 876,624

ATTACHMENT "B"
WATER RECLAMATION
PART 1
ESTIMATED ANNUAL ANALYTICAL NEEDS

ANALYTICAL TEST	EUROFINS TEST METHOD	TOTAL QUANTITY	UNIT PRICE	TOTAL PRICE
Coliform, Total		730	$ 15	$ 10,950
Coliform, Fecal		730	$ 15	$ 10,950
pH	SM 4500H-B	1,787	$ 2	$ 3,574
Specific Conductance	SM 2510B	1,355	$ 5	$ 6,775
BOD		834	$ 20	$ 16,680
Total Suspended Solids	SM 2540D	846	$ 10	$ 8,460
COD		3,017	$ 10	$ 30,170
Nitrogen, Ammonia		3,229	$ 10	$ 32,290
Nitrogen, Nitrate	EPA 300.0	1,720	$ 5	$ 8,600
Nitrogen, Nitrite	EPA 300.0	1,716	$ 5	$ 8,580
Nitrogen, Total Inorganic		208	$ 20	$ 4,160
Total Dissolved Solids (TDS)	EPA 160.1	88	$ 10	$ 880
Cyanide (WAD & Total)		24	$ 50	$ 1,200
Volatile Suspended Solids		365	$ 10	$ 3,650
Boron	EPA 200.7	16	$ 10	$ 160
Chloride	EPA 300.0	36	$ 5	$ 180
Fluoride	SM 4500F-C	36	$ 10	$ 360
Sodium	EPA 200.7	36	$ 10	$ 360
Sulfate	EPA 300.0	36	$ 5	$ 180
Copper	EPA 200.8	20	$ 10	$ 200
Zinc	EPA 200.8	8	$ 10	$ 80
EPA 624 and 625	EPA 624/625	3	$ 200	$ 600
Chromium	EPA 200.8	8	$ 10	$ 80
Diethylphthalate	EPA 625	4	$ 125	$ 500
Phenols	EPA 625	4	Incl w/625	Incl w/625
Pyrene	EPA 625	4	Incl w/625	Incl w/625
Bicarbonate	SM 2320B	64	$ -	$ -
Calcium	EPA 200.7	24	$ 5	$ 120
Carbonate	SM 2320B	64	Incl w/Bicarb	Incl w/Bicarb
Total Organic Carbon	SM 5310C	24	$ 15	$ 360
Manganese	EPA 200.8	76	$ 10	$ 760
Nitrosodimethylamine	EPA 521	24	$ 100	$ 2,400
Total Alkalinity	SM 2320B	2,820	$ 5	$ 14,100
Hydroxide	SM 2320B	64	$ 5	$ 320
Magnesium	EPA 200.7	24	$ 5	$ 120
Potassium	EPA 200.7	80	$ 10	$ 800
Hardness, Total	SM 2340B	12	$ 10	$ 120
Lead	EPA 200.8	16	$ 5	$ 80
Mercury	EPA 245.1	16	$ 15	$ 240
Selenium	EPA 200.8	16	$ 5	$ 80
Silver	EPA 200.8	16	$ 5	$ 80
Nitrogen, Kjeldahl		16	$ 20	$ 320
Total Phosphoruus		68	$ 15	$ 1,020
Turbidity	EPA 180.1	104	$ 5	$ 520
8141 O/P Pesticides (Extract)	EPA 8141	36	$ 125	$ 4,500

ANALYTICAL TEST	EUROFINS TEST METHOD	TOTAL QUANTITY	UNIT PRICE	TOTAL PRICE
625 (Extract)	EPA 625	36	$ 125	$ 4,500
Arsenic	EPA 200.8	4	$ 10	$ 40
Barium	EPA 200.8	4	$ 10	$ 40
Cadmium	EPA 200.8	4	$ 10	$ 40
Cobalt	EPA 200.8	4	$ 10	$ 40
Nickel	EPA 200.8	4	$ 10	$ 40
Aluminum	EPA 200.8	4	$ 10	$ 40
Phenolic Compounds		4	$ 25	$ 100
Bis-2-ethylhexyl phthalate	EPA 625	1	$ 125	$ 125
Dioxin & Equivalents	EPA 1613	5	$ 400	$ 2,000
EPA Priority Pollutants	various	6	$ 600	$ 3,600
1,4-Dichlorobenzene	EPA 624	4	$ 75	$ 300
Total Solids		1,720	$ 5	$ 8,600
Nonfilterable Solids		4	$ 15	$ 60
Molybdenum	EPA 200.8	4	$ 10	$ 40
% Solids		12	$ 10	$ 120
% Volatile Solids		1,716	$ 5	$ 8,580
Volatile Acids		416	$ 25	$ 10,400

ANALYTICAL TEST	EUROFINS TEST METHOD	QUANTITY PER YEAR				UNIT PRICE	TOTAL PRICE
		1st (2016)	2nd (2017)	3rd (2018)	4th (2019)		
NPDES WELLHEAD TREATMENT:							
VOC	EPA 624/8260	20	20	20	20	$ 50	$ 4,000
Total Residual Chlorine		1	1	1	1	$ 10	$ 40
Total Suspended Solids		20	20	20	20	$ 10	$ 800
Total Inorganic Nitrogen		20	20	20	20	$ 20	$ 1,600
pH	SM 4500H-B	20	20	20	20	$ 2	$ 160
Field Temperature (data entry)	-----	20	20	20	20	No Charge	No Charge
TDS	EPA 160.1	1	1	1	1	$ 10	$ 40
Hardness	SM 2340B	1	1	1	1	$ 10	$ 40
Priority Pollutants (5th Year)		1	1	1	1	$ 600	$ 2,400
NPDES GEOTHERMAL INFLUENT:							
Field Temperature (data entry)	-----	2	2	2	2	No Charge	No Charge
Selenium	EPA 200.8	2	2	2	2	$ 10	$ 80
Mercury	EPA 245.1	2	2	2	2	$ 15	$ 120
Arsenic	EPA 200.8	2	2	2	2	$ 10	$ 80
NPDES GEOTHERMAL EFFLUENT							
Field Temperature (data entry)	-----	1	1	1	1	No Charge	No Charge
pH	SM 4500H-B	1	1	1	1	$ 2	$ 8
Total Hardness	SM 2340B	1	1	1	1	$ 10	$ 40
							$ 223,632

eurofins | Eaton Analytical

QA Manual

eurofins	Always check on-line for validity. **Quality Manual - Monrovia**	Level: **Quality Manual**
Document number: **QM-Monrovia-QM2598**		
Old Reference: **QM**		
Version: **40**		Organisation level: **4-Business Unit**
Approved by: **OQ5N, Q8UM, UNCO** Effective Date **01-AUG-2016**	Document users: **4_Eurofins_Eaton_Analytical_Monrovia**	Responsible: **4_Eurofins_Eaton_Analytical_Monrovia/6_QRegCons**

3) STATEMENT OF POLICY
- 3.1) INTRODUCTION
- 3.2) QUALITY POLICY
- 3.3) MISSION STATEMENT
- 3.4) CODE OF ETHICS AND POLICY/DATA INTEGRITY PROCEDURES
- 3.5) SERVICE TO THE CLIENT
  - 3.5.1) Client Confidentiality
- 3.6) REVIEW OF REQUESTS AND CONTRACTS/CONTRACT AMENDMENTS
  - 3.6.1) Procedure for the Review of Work Requests
  - 3.6.2) Documentation of Review
- 3.7) EEA STANDARD POLICY ON RESOLUTION OF COMPLAINTS
- 3.8) CAPABILITIES
- 3.9) CERTIFICATION
- 3.10) SUBCONTRACTED LABORATORY WORK
- 3.11) FACILITIES
  - 3.11.1) ACCOMODATIONS
  - 3.11.2) ENVIRONMENTAL CONDITIONS

4) PROGRAM ORGANIZATION AND MANAGEMENT
- 4.1) EEA'S PERSONNEL
  - 4.1.1) President: Mr. Dennis Leeke
  - 4.1.2) Laboratory Director: Mr. Daniel Lashbrook
  - 4.1.3) Technical Director: Dr. Andrew Eaton
  - 4.1.4) Asbestos Technical Manager: Ms. Carol J. Belt
  - 4.1.5) Client Services Manager/ Deputy Laboratory Director/ Deputy Technical Director: Ms. Linda Geddes
  - 4.1.6) Quality Manager/Regulatory Consulting Manager: Ms. Nilda B. Cox
  - 4.1.7) Technical Manager/LCMS Supervisor: Mr. Ali Haghani
  - 4.1.8) Technical Manager/Extraction/GCMS/GC and HPLC Supervisor: Mr. Charles Grady
  - 4.1.9) Technical Manager/Inorganic Supervisor: Mr. Walter Hsieh
  - 4.1.10) Technical Manager/Microbiology Supervisor: Mr. Derrick Davis
  - 4.1.11) OneIT Director: Daniel Santaniello
- 4.2) QUALITY SYSTEMS PROGRAM AND ITS MANAGEMENT
- 4.3) STAFF RESPONSIBILITY
  - 4.3.1) Initial Training
  - 4.3.2) On-going Training/Annual Competency Check
  - 4.3.3) Training Records

5) QUALITY ASSURANCE OBJECTIVES
- 5.1) PRECISION
- 5.2) ACCURACY
- 5.3) REPRESENTATIVENESS/SAMPLING OF SUB-ALIQUOT
- 5.4) COMPARABILITY
- 5.5) COMPLETENESS
- 5.6) TIMELINESS
- 5.7) DOCUMENTATION

6) QUALITY OF TEST RESULTS
- 6.1) ESSENTIAL QUALITY CONTROL PROCEDURES
  - 6.1.1) NEGATIVE CONTROL
    - 6.1.1.1) Method Blanks
    - 6.1.1.2) Travel Blanks
    - 6.1.1.3) Field Blanks
    - 6.1.1.4) Sample Blanks
    - 6.1.1.5) Calibration Blanks (CB)

6.1.2) Positive Control
6.1.2.1) Laboratory Control Sample (LCS)/Laboratory Fortified Blank (LFB)
6.1.2.2) Matrix Spike and Matrix Spike Duplicate Samples (MS/MSD)
6.1.2.3) LCS and MS/MSD Concentration Levels
6.1.2.4) Selection of Spike Analytes
6.1.2.5) Sample Preparation of LCS/LFB and MS/MSD
6.1.2.5) 1. Stock Source of LCS/LFB and MS/MSD
6.1.2.6) Frequency of MS/MSD
6.1.2.7) Frequency of LCS/LFB
6.1.2.8) Evaluation Criteria of LCS/MS/MSD
6.1.2.9) Evaluation Criteria of LCS/LFB – Marginal Exceedances
6.2) Sample Specific Controls
6.2.1) Internal and Surrogate Standards
6.2.2) Spikes – Recoveries, RPDs
6.2.3) Duplicates, Duplicate Spikes
6.2.4) External Reference Samples/Quality Control Sample (QCS)
6.2.5) Confirmation
6.2.6) Retention Time Windows
6.3) DEMONSTRATION OF CAPABILITY (DOC)
6.3.1) Method Detection Limits (MDL) / Limit of Detection (LOD)
6.3.2) Minimum Reporting Limits (MRL) / Limits of Quantification (LOQ)
6.3.3) Initial Demonstration of Capability(IDC)
6.4) METHOD SPECIFIC QUALITY CONTROL
6.4.1) Gravimetric
6.4.2) Titration
6.4.3) Colorimetric Spectrophotometry
6.4.4) ICP Emission Spectroscopy & ICPMS
6.4.5) Radiochemistry
6.4.6) Gas Chromatography
6.4.7) Gas Chromatography/Mass Spectrometry
6.4.7.1) GC/MS Tuning Specifications
6.4.7.2) Quantitation of Identified Compounds/Quantitation from Initial Instrument Calibration
6.4.7.3) Internal and Surrogate Standards (IS and SS)
6.4.7.4) Criteria for Tentatively Identified Compounds (TIC's)
6.4.7.5) Control Samples
6.4.7.6) Blanks
6.4.8) Total Organic Carbon (TOC)
6.4.9) Total Organic Halogen (TOX)
6.4.10) General Microbiology - Use of Commercial Dehydrated Powder for Coliform Testing
6.4.11) Asbestos
7) SAMPLE COLLECTION, PRESERVATION, IDENTIFICATION, HANDLING, AND STORAGE
7.1) SAMPLE COLLECTION AND BOTTLE PREPARATION
7.2) CONTAINERS, PRESERVATIVES, HOLDING TIMES AND SAMPLE KITS
7.3) SAMPLE STORAGE
7.4) SAMPLE DISPOSAL
8) SAMPLE MANAGEMENT
8.1) SAMPLE RECEIPT AND LOG-IN/SAMPLE RECEIPT PROTOCOL
8.1.1) Sample Labeling System
8.1.2) Sample Receipt Acceptance Criteria:
8.2) CHAIN OF CUSTODY
8.2.1) Level I
8.2.2) Level II
8.2.3) Sub-contract Laboratories
8.3) SAMPLE STORAGE AND DISPOSAL
8.4) SAMPLE TRACKING
8.4.1) Sample Disposition -
8.4.2) Due Date/Hold time Date -
8.4.3) QC Data -
8.4.4) Formats -
8.5) LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)
8.5.4.1) Analyst/Reviewer –
8.5.4.2) Manager/Validation –
8.5.4.3) User –

8.5.5.1) Report Storage –
8.5.5.2) Electronic Data Deliverables (EDDs) –
8.5.5.3) LIMS Maintenance –
8.5.6) Sample Status
8.5.7) Data Entry and Report Generation
9) ANALYTICAL PROCEDURES
9.1) SOURCES FOR METHODS
9.1.1) Standard Methods
9.1.2) Non Standard Methods
9.2) INITIAL TEST METHOD EVALUATION PROCEDURES
9.2.1) Limit of Detection (LOD)
9.2.2.4) Precision and Bias
9.2.3) Detection Limits
9.3) ESTIMATION OF UNCERTAINTY
9.4) METHOD VALIDATIONS [TNI-EL-V1M3 to V1M7-2009-1.5]
9.5) METHOD VALIDATION/MICROBIOLOGY
9.6) METHODS USED/SCOPE OF TESTING
9.7) METHOD MODIFICATIONS
9.8) REFERENCES
10) PURCHASING SERVICES AND SUPPLIES/ MEASUREMENT TRACEABILITY
10.1) PURCHASING SERVICES AND SUPPLIES
10.2) REAGENTS AND REFERENCE STANDARDS
10.2.3) Calibration Standards
10.2.4) Policy on Verification of Standards
10.2.4.1) Mixtures
10.2.4.2) Neat Compounds
10.3) DOCUMENTATION RECORDS OF REAGENTS AND STANDARDS
10.4) REAGENT STORAGE AND DISPOSAL
11) CALIBRATION PROCEDURES AND FREQUENCY
11.1) INITIAL INSTRUMENT CALIBRATION
11.1.1) Applicability
11.1.2) Linearity
11.1.2.1) 1. Linear Regression
11.1.2.1) 2. Linear Regression Statistical Equations
11.1.2.1) 3. Quadratic Regression Equation
11.1.2.1) 4. Equation for Concentration
11.1.2.2) 1. Coefficient of Determination (r2)
11.1.3) Selection of Quantitation Technique (Organics)
11.1.4) Selection of Calibration Method
11.1.5) Minimum Number of Calibration Levels
11.1.6) Selection of Calibration Levels
11.1.7) Calibration Analytical Sequence
11.1.8) Calibration Acceptance Criteria
11.2) CONTINUING INSTRUMENT CALIBRATION
11.3) UNACCEPTABLE CONTINUING INSTRUMENT CALIBRATION VERIFICATIONS
12) EQUIPMENT
12.1) ANALYTICAL EQUIPMENT
12.2) SUPPORT EQUIPMENT
12.2.1) Balances
12.2.2) Temperature Monitoring
12.2.3) Pipets
12.2.4) Microbiology Volumetric Equipment [TNI-EL-V1M5-2009-1.7.3.1.a.iii]
12.2.5) Glassware
12.2.6) Water Quality File
12.2.7) Out of Service
12.3) PREVENTIVE MAINTENANCE
12.3.1) Routine Maintenance Activities
12.3.2) Documentation
12.3.3) Contingency Plans
13) DOCUMENT MANAGEMENT/CONTROL OF RECORDS
13.1) ANALYTICAL DOCUMENTATION
13.1.1) Analytical Data and Quality Control Forms
13.1.2) Chromatograms and Data Processing
13.1.3) Inventory Control Logs

13.1.4) Stock Standard Logs
13.1.5) Bacteriological Growth Media Log
13.1.6) Instrument Monitoring and Maintenance Logs
13.1.7) Corrective Action
13.2) CONTROL OF RECORDS
13.2.1) General Records
13.2.2) Technical Records
13.3) DATA STORAGE
13.4) DOCUMENT CONTROL
13.5) DOCUMENT CHANGES TO CONTROLLED DOCUMENTS
13.6) ARCHIVAL SYSTEM
13.7) STANDARD OPERATING PROCEDURES (SOP)
13.7.3.1) Header -
13.7.3.2) Cover Page -
13.7.3.3) Body
13.7.3.3) 1. Title
13.7.3.3) 2. Scope and Application
13.7.3.3) 3. Method Summary
13.7.3.3) 4. Interferences
13.7.3.3) 5. Safety Considerations -
13.7.3.3) 6. Instrumentation/Apparatus -
13.7.3.3) 7. Reagents and Standards
13.7.3.3) 8. Sample Collection, Preservation and Handling -
13.7.3.3) 9. Calibration Procedure -
13.7.3.3) 10. Analytical Procedure -
13.7.3.3) 11. Quality Control Requirements -
13.7.3.3) 12. Calculations -
13.7.3.3) 13. Method Performance -
13.7.3.3) 14. References
13.7.3.3) 15. Deviations from Referenced Methodology -
13.7.3.3) 16. Method Detection Limit
13.7.3.3) 17. Demonstration of Capability -
13.7.3.3) 18. Definitions -
13.7.3.3) 19. Pollution Prevention -
13.7.3.3) 20. Waste Management
13.7.3.3) 21. Revisions
13.7.3.3) 22. Attachments
14) DATA REDUCTION, VALIDATION, AND REPORTING
14.1) DATA REDUCTION
14.1.1) GC AND GC/MS
14.1.2) GC/MS
14.1.3) METALS
14.1.4) HPLC / IC / SPECTROPHOTOMETRIC / POTENTIOMETRIC
14.1.5) MICRIOBIOLOGY
14.2) DATA VALIDATION
14.3) DATA REVIEW POLICY/CORRELATION OF RESULTS
14.4) DATA REPORTING
14.5) ELECTRONIC TRANSMISSION OF RESULTS
14.6) GOOD AUTOMATED LABORATORY PRACTICES (GALP)
14.7) STATE SPECIFIC REPORTING REQUIREMENTS
14.8) MCL NOTIFICATIONS
15) CONTROL OF NON-CONFORMING WORK, CORRECTIVE ACTION, AND PREVENTIVE MEASURES
15.1) CORRECTIVE ACTION PROCEDURES, BY METHOD
15.2) CORRECTIVE ACTION PROCEDURES, ROOT CAUSE, PREVENTIVE MEASURES, DATA QUALIFIERS, AND REPORT COMMENTS
15.2.1) Selection and Implementation of Corrective Actions
15.2.2) Documentation of Corrective Actions
15.2.3) Monitoring of Corrective Action
15.2.4) Preventive Measures
15.3) ESTABLISHING WARNING/ACTION LIMITS
15.3.1) Approach to Setting Limits
15.3.2) Documentation of Limits
15.3.3) LCS Control Limits

15.4) CONTROL CHARTS

15.5) PROCEDURES FOR DETERMINING AND REPORTING OUT-OF-CONTROL ANALYSES
15.5.1) Defining an Out-of-Control Analysis
15.5.1.1) Criteria Used
15.5.1.1) 1. Daily Quality Controls
15.5.1.1) 2. Approaches to Control Chart Interpretation
15.5.2) Responding to an Out-of-Control Event
15.5.2.1) Roles and Responsibilities
15.5.2.2) Defining Suspect Samples
15.5.2.3) Ensuring that Suspect Data Are Not Reported
15.5.2.4) Corrective Action
16) PERFORMANCE AND SYSTEM AUDITS/MANAGEMENT REVIEW
16.1) INTERNAL AUDITS
16.1.1) Annual and Periodical Internal Audits
16.1.2) Data Package Reviews
16.2) EXTERNAL AUDITS
16.3) PERFORMANCE AUDITS
16.3.1) Internal Proficiency Testing Samples/Internal Check Sample Program
16.3.2) External Proficiency Testing (PT) Samples
16.3.3) Proficiency Testing Protocol
16.3.3.1) Frequency
16.3.3.2) Laboratory Handling
16.3.3.3) Not Acceptable PT Results
16.3.3.4) Reporting
16.3.3.5) Remedial PT
16.4) SYSTEM AUDITS AND MANAGEMENT REVIEW
16.4.1) System Audits
16.4.2) Management Review
16.5) IMPROVEMENT

3) STATEMENT OF POLICY

3.1) INTRODUCTION

Eurofins Eaton Analytical, Inc. (EEA) is a premier ISO 17025 and TNI-NELAP Approved Lab, full-service drinking water and wastewater laboratory that serves a national and international clientele. EEA is located at 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016 and is an entity that can be held legally responsible. EEA provides organic, inorganic, microbial, and radiochemical analyses in support of the Safe Drinking Water Act (SDWA), Clean Water Act (CWA), National Pollutant Discharge Elimination EEA Systems (NPDES), Resource Conservation and Recovery Act (RCRA), Food and Drug Administration (FDA), and the World Health Organization (WHO) as well as the EPA Unregulated Contaminant Monitoring Regulation (UCMR) Programs. The Quality Assurance Project Plan (QAPP) for the UCMR program is discussed in a separate document as an addendum to the laboratory's comprehensive Quality Manual (QM). The essential elements of the Quality Systems Program of EEA and the quality control procedures utilized by the laboratory to ensure compliance to the UCMR program requirements are discussed in the UCMR QAPP. UCMR QAPPs are developed for specific UCMR programs. Monrovia is certified in CA for EPA 1623, and the QAPP for LT2 is discussed in a separate document as addendum to the laboratory's QM.

EEA takes an active role in supporting the promulgation of improved methodologies and the practice of differentiating laboratories based on quality of data. EEA participates in the methods development and validation of Standard Methods.

3.2) QUALITY POLICY

Management's commitment to quality and to the management system is stated in the Quality Policy below, which is upheld through the application of related policies and procedures described in EEA's Quality Manual, SOPs and policies.

The foundation of the quality policy lies in the involvement and continuous improvement activities of all aspects at EEA. A system of monitoring, auditing, and reviewing processes is used to bring to light the opportunities for improvement.

The quality policy is signed and dated, and is issued under the authority of the highest level of laboratory management, which demonstrates management's commitment to integrity, ethics, the quality system and associated standards.

Quality Policy Statement

We strive to provide the highest quality data achievable by:

- Following all documentation requirements; describing clearly and accurately all activities performed; documenting "real time" as the task is carried out; understanding that it is never acceptable to "back date" entries and should additional information be required at a later date, the actual date and by whom the notation is made must be documented.
- Providing accountability and traceability for each sample analyzed through proper sample handling, labeling, preparation, instrument calibration/qualification/validation, analysis, and reporting; establishing an audit trail that identifies date, time, analyst, instrument used, instrument conditions, quality control samples (where appropriate and/or required by the method), and associated standard material.
- Emphasizing a total quality management process which provides accuracy, and strict compliance with agency regulations and client requirements, giving the highest degree of confidence; understanding that meeting the requirements of the next employee in the work flow process is just as important as meeting the needs of the external client.
- Providing thorough documentation and explanation to qualify reported data that may not meet all requirements and specifications, but is still of use to the client; understanding this occurs only after discussion with the client on the data limitations and acceptability of this approach.
- Responding immediately to indications of questionable data, out-of-specification occurrences, equipment malfunctions, and other types of laboratory problems, with investigation and applicable corrective action; documenting these activities completely, including the reasons for the decisions made.
- Providing a work environment that ensures accessibility to all levels of management and encourages questions and expression of concerns on quality issues to management.

We each take personal responsibility to provide this quality product while meeting the company's high standards of integrity and ethics, understanding that improprieties, such as failure to conduct the required test, manipulation of test procedures or data, or inaccurate documentation will not be tolerated. Intentional misrepresentation of the activities performed is considered fraud and is grounds for termination.

Our policy is to use good professional practices, to maintain quality, to uphold the highest quality of service, and to comply with the TNI Standard and ISO17025 and to continually improve the effectiveness of the management system. The laboratory ensures the personnel are free from any commercial, financial, and other undue pressures, which might adversely affect the quality of work. All personnel within the laboratory shall familiarize themselves with the quality documentation and implement the policies and procedures in their work. This policy is implemented and enforced through unequivocal commitment of management, at all levels, to the Quality Assurance (QA) principles and practices outlined in this manual.

Dennis Leeke
President

This Quality Manual defines the performance criteria and support procedures by which quality analytical data are generated. Standard Operating Procedures (SOPs) for individual analytical methodologies supplement this Quality Manual. Together they provide the documentation framework for ensuring the generation of uniform, comparable and quality data over time.

The foundation of the quality policy is in the involvement and continuous improvement activities of all personnel at EEA. Opportunities for improvement are showcased with a system of monitoring, auditing, and reviewing processes. The spirit of innovation is encouraged and viewed as paramount to the continued success of the laboratory in serving its clients.

3.3) MISSION STATEMENT
EEA will contribute to global health and safety by providing clients with high quality laboratory and advisory services whilst creating opportunities for EEA employees and generating sustainable shareholder value. EEA will provide outstanding client service and data of known and documented quality to all clients at all times.

3.4) CODE OF ETHICS AND POLICY/DATA INTEGRITY PROCEDURES
EEA was a founding member (1989) of actLABS, the California Association of Testing Laboratories and drafted one of the first lab ethics policies for actLABS. actLABS subsequently became part of ACIL (American Council of Independent Labs). Beginning in 1997 our increased geographic client base required us to give up our actLABS membership.

As a former actLABS member and a current TNI (the NELAC Institute) accredited laboratory, EEA is committed to ensuring the integrity of generated data, meeting the quality needs of clients, and setting high quality and ethical standards in the environmental industry. EEA is committed to managing its businesses by agreeing to:

• Produce results that are accurate and include QA/QC information which meets client predefined Data Quality Objectives.
• Present services in a confidential, honest, and forthright manner.
• Provide employees with guidelines and an understanding of the ethical and quality standards of our industry.
• Operate our facilities in a manner that protects the environment and the health and safety of employees and the public.
• Operate the laboratory to ensure its personnel are free from any commercial, financial and other undue pressure that might adversely affect the quality of the work.
• Obey all pertinent federal, state, and local laws and regulations, and encourage other members of our industry to do the same.
• Educate clients as to the extent and kinds of services available.

In addition any employee of EEA identified as not conforming to the code of ethics of the laboratory, committing fraud or improper data manipulation, falsifying data, or deviating from the contractual requirements will be subject to disciplinary procedures, including suspension and up to termination of employment. Any supervisor or employee applying undue pressure to another coworker that might adversely affect the quality of the work (TNI-EL-V1M2-2009-4.1.5.b) (ISO/IEC 17025:2005(E)-4.1.5.b) will be subject to the same disciplinary procedures outlined above.

In order to meet the requirements of the TNI data integrity program (TNI-EL-V1M2- 2009-5.2.7), the laboratory implements a proactive program for the prevention and detection of improper, unethical or illegal action. This program includes training courses on Laboratory Ethics and Data Integrity Procedures, and educating all personnel on questionable practices. Details of the Laboratory Ethics and Data Integrity Procedures are found in the laboratory SOP. The laboratory SOP includes the implementation of Data Integrity Procedures including:

• Management Responsibilities on Data Integrity Procedures/Signed Contract/Ethics Agreement for all laboratory personnel [TNI-EL-V1M2-2009-4.2.8.1, 4.2.8.1a, 4.2.8.1b].
• Control and documentation – Internal Audit/Periodic Monitoring of Data Integrity/Evidence of Vulnerabilities [TNI-EL-V1M2-2009-4.14.2, 4.14.3][ISO/IEC 17025:2005(E)- 4.14.2, 4.14.3].
• Data Integrity Training and documentation of Examples of Improper Practices in the Laboratory Ethics SOP [TNI-EL-V1M2-2009-5.2.7].

3.5) SERVICE TO THE CLIENT
The laboratory collaborates with clients and/or their representatives in clarifying their request and in monitoring of the laboratory performance related to their work. Each request is reviewed to determine the nature of the request and the laboratory's ability to comply with the request within the confines of prevailing statutes and/or regulations without risk to the confidentiality of other clients.

3.5.1) Client Confidentiality
EEA recognizes its clients to be its contractors, the regulatory community, and the general public. The day to day operations are defined with considerations to the needs, goals and health of all clients. Protection of clients' confidential information and proprietary rights are considered. Where data are provided for external audits or for other similar reasons, the client's name and identity are concealed as necessary to protect client-confidential information.

In the event that the laboratory transfers ownership or goes out of business, the laboratory will notify all clients to ensure that records are maintained or transferred according to the client's instructions [TNI-EL-V1M2-2009-4.13.3.h].

3.6) REVIEW OF REQUESTS AND CONTRACTS/CONTRACT AMENDMENTS

EEA agrees to assert competency only for work for which adequate preparation has been made. Before commencing new work, the laboratory reviews all new work to ensure that it has the appropriate capability, facilities, resources, and the test method is applicable to the client's needs. This process assures that all work will be given adequate attention without shortcuts that may compromise data quality.

A contract may be any written or oral agreement to provide a client with environmental testing. The laboratory reviews contracts and informs clients if there are any potential conflicts, deficiencies, lack of accreditations or inability to complete client work. The review also covers any work that will be subcontracted by the laboratory.

3.6.1) Procedure for the Review of Work Requests

3.6.1.1) Requests, tenders and contracts received by the laboratory are reviewed to ensure that the laboratory has the necessary personnel, information resources, facilities, equipment, PT, MDLs, QC and current applicable accreditation status [TNI-EL-V1M2-2009-4.4.1][ISO/IEC 17025:2005(E)-4.4.1].

3.6.1.2) For new clients and comprehensive testing, contracts are generated and appropriate lab personnel, such as the Lab Director or designee, review the Contracts to assure that the lab is capable of providing testing prior to the start of work [TNI-EL-V1M2-2009-4.4.1][ISO/IEC 17025:2005(E)-4.4.1].

3.6.1.3) For repetitive, routine tasks the review needs to be made only at the initial inquiry stage or on granting of the contract for ongoing routine work performed under a general agreement with the client, provided that the client's requirements remain unchanged.

3.6.1.4) For any contract amendment for TNI compliance, the laboratory repeats the review process. The client is informed of any deviation from the contract including the test method or sample handling processes. If a contract needs to be amended after work has commenced, the same contract review process is reviewed and amendments are communicated to all affected personnel. If the laboratory's accreditation is suspended, revoked, or voluntarily withdrawn, the laboratory reports to clients any applicable changes of its accreditation status.

3.6.1.5)
The designated Analytical Services Manager (ASM) reviews client samples received by the laboratory and logged in the LIMS. Review of logged tests and methods are documented in the Sample Acknowledgement Report by affixing the PM's signature and/or initials. A Sample Acknowledgement Report is sent to the client to document approval of LOGGED samples and methods of analysis.

The LIMS system has the capability to "merge" various documents into a final report PDF. The most current version of the acknowledgment, which would contain all revisions made during the ASM review, is merged into the final report PDF.

3.6.1.6) Refer to the current Contracts Review SOP for detailed Contract Review procedures.

3.6.2) Documentation of Review

3.6.2.1) Records of reviews, including any significant changes, shall be maintained. Records shall also be maintained of pertinent discussions with a client relating to the client's requirements or the results of the work during the period of execution of the contract. See EEA's current Policy-QP3977 for storing communication between clients and Analytical Service Managers.

3.7) EEA STANDARD POLICY ON RESOLUTION OF COMPLAINTS

3.7.1) EEA reviews all complaints and determines appropriate action. ASMs are required to notify the QA department and
request a corrective action form for any complaints from a client with regards
to the integrity of EEA's data or vulnerabilities the client has encountered in
EEA's quality system. The ASM is to fill in the relevant portions of the
corrective action form and return to the QA department to document the formal
complaint process. The ASM is also to exercise personal judgment in order
to filter out true complaints against the quality system or the laboratory from
clients that are simply complaining. Complaints that are not related to EEA's quality system are resolved between the ASM and client verbally or by e-mail.

3.7.2) EEA will, if it is feasible and within holding times, arrange for repeat of all analyses that do not meet regulatory requirements. We hold ourselves responsible for reporting or re-reporting all results in a format that complies with regulatory requirements, and will make every attempt to correct and when feasible will repeat work at no additional charge for all analyses compromised due to laboratory error in shipping, sample preparation, or

analysis. In the event of a sample loss within the required sample collection window, we will discuss with clients the merits of available options for flagging data versus re-sampling for either the individual parameter or the entire suite of samples. In all circumstances, EEA will keep clients completely informed and aware of potential or actual problems as they arise, using e-mail or telephone.

3.7.3) Where a complaint or any other circumstance raises doubt concerning compliance with the laboratory's policies, with the requirement of the TNI and ISO 17025 Standards or otherwise concerning the quality of the laboratory's data, the EEA Quality Assurance Department will conduct an audit of the affected areas of activity.

3.7.4) Documentation of the complaints or initiating event, internal audit findings and resulting corrective action will be maintained by the EEA Quality Assurance Department (TNI-EL-V1M2-2009-4.11.3) (ISO/IEC 17025:2005(E)-4.11.3) and as appropriate be conveyed to the client.

3.8) CAPABILITIES

EEA has the capability to analyze drinking water and wastewater for clients in the private and public sector where work is dictated by the regulatory requirements for the Safe Drinking Water Act (SDWA), Resource Conservation and Recovery Act (RCRA), National Pollutant Discharge Elimination Systems (NPDES), Clean Water Act (CWA), Food and Drug Administration (FDA), World Health Organization (WHO) and the Superfund Amendments and Reauthorization Act (SARA) and the EPA Unregulated Contaminants Monitoring Regulations (UCMR) Program. Our specialized laboratory services include:

• Analysis and identification of inorganic & organic disinfection by-products, taste and odor compounds in drinking water
• Identification and quantitation of coliphage in drinking water and wastewater
• Comparability of alternate test procedures for drinking water and wastewater analysis.
• Analysis of emerging contaminants such as Pharmaceuticals and Personal Care Products (PPCPs), Endocrine Disrupter Compounds (EDCs), and perfluoro octanesulfonate (PFOS).
• Analysis of bottled water and beverage matrices for FDA and WHO regulated analyses.

3.9) CERTIFICATION

EEA is currently certified in 42 states and 3 territories to perform various analyses for regulated parameters. EEA is also NELAP accredited in 12 TNI states (Governmental Accreditation Bodies) out of 13 TNI states (Governmental Accreditation Bodies). EEA holds primary accreditation under Oregon NELAP (ORELAP) (4034) and California ELAP Program (Certificate No. 2813). Please refer to Table 3-1 for the list of the states, laboratory identification number, and the certification type. An updated list is available in the QA department.

A copy of EEA's Oregon NELAP Certificate of Accreditation is in Fig. 4-1. The most recent NELAP Certificate of Accreditation and NELAP fields of accreditation are available in the QA department.

A copy of the CA ELAP Certificate is in Fig. 4-3. The most recent CA ELAP Certificate plus Fields of Testing are available in the QA department.

EEA is ISO 17025 accredited by ANAB. See Fig. 4-2 for EEA's ISO 17025 Certificate of Accreditation. EEA's most recent ISO 17025 Certificate of Accreditation and Scope of Accreditation are available in the QA department.

Arizona Dept of Health Services requires that a copy of EEA's AZ certification and License (AZ0778) be attached in the Lab QM. See the AZ License and list of license parameters in Appendix I. The most recent certification is available in the QA department.

EEA may accept, analyze, and report results for samples from states in which it is not certified if the results are intended for non-regulatory monitoring.

When there is a change in lab location or ownership, the laboratory will report in writing to the accrediting authorities within 30 calendar days of the change.

3.10) SUBCONTRACTED LABORATORY WORK

3.10.1) On occasion laboratory work may be subcontracted to certified laboratories approved by EEA. The subcontractor laboratory will be approved only if the laboratory meets all the necessary certification requirements required by the state where the samples are collected. For example, samples collected from Nevada for compliance monitoring must be analyzed by a laboratory certified by the State of Nevada. For any part of testing covered under NELAP, the laboratory sends the work to a subcontractor accredited under NELAP or to a laboratory that meets applicable satisfactory and regulatory requirements for performing the test and submitting the results of the tests performed [TNI-EL-V1M2-2009-4.5.1][ISO/IEC 17025:2005(E)-4.5.1]. For ISO 17025 subcontracted work, EEA subcontracts work to an ISO 17025 subcontractor or qualified non ISO 17025 accredited subcontractor. Refer to the

Subcontracting of Environmental Tests SOP for the requirements for Non ISO 17025 accredited subcontractors.

3.10.2) Under no circumstances will work be subcontracted without client approval. The laboratory advises the client in writing of its intention to sub-contract any portion of the testing to another laboratory during the project bid proposal or purchase order procurement [TNI-EL-V1M2-2009-4.5.2][ISO/IEC 17025:2005(E)-4.5.2]. Test results provided by the subcontractor are identified by the subcontractor name or applicable accreditation number. The subcontractor shall report the results in writing or electronically [TNI-EL-V1M2-2009-5.10.6] [ISO/IEC 17025:2005(E)-5.10.6]. The laboratory shall make a copy of the subcontractor's report available to the client.

3.10.3) Subcontracted work is documented in the chain of custody (COC). The COC and other appropriate records are included with the final data package as part of the final deliverables. To comply with California ELAP regulations (Title 22, Division 4, Chapter 19, Article 10, Section 64819), EEA's reports must include the original copies of reports prepared by the subcontracted laboratories. See section 14.4 for all the information required in the final test report.

3.10.4) To help ensure all subcontractors meet EEA's Data Quality Objectives and consistently produce documented data of known quality, EEA requires that the following documentation must be submitted by the vendor for review:

(1) NELAP laboratory accreditation, ISO 17025 accreditation, or state; certifications that meet the applicable statutory and regulatory requirements
(2) Recent state onsite audit findings for the relevant methods and corrective action report, if applicable;
(3) Notify EEA of 2 failed Proficiency Testing (PT) results or any changes of certification status either suspension or revocation for any relevant tests, if applicable.

For non-NELAP/ISO laboratories, the approval is based on the evaluation of the client's ASM, subcontracting ASM, and the client's needs. For these type of laboratories, the following items are requested to assist in evaluation:
(1) State certification (if certification for parameter(s) of interest exist);
(2) Laboratory Quality Manual(QM) or at the minimum the signed cover page and table of contents of the lab QM;
(5) A copy of Data Integrity/Ethics Policy, if available.

3.10.5) At a minimum, the lab's NELAP accreditation or states certification status is verified.

3.10.6) Data deliverables must meet EEA's project needs and requirements. EEA assumes responsibility to the client for the subcontractor's work, except in the case where a client or a regulating authority specified which subcontractor is to be used [TNI-EL-V1M2-2009-4.5.3][ISO/IEC 17025:2005(E)-4.5.3]. At a minimum, laboratory deliverables submitted to EEA must include final report, QC results and acceptance limits. Level 4 data deliverables may be requested by EEA for review as needed. Onsite audit of subcontract laboratory may also be conducted by EEA as needed.

3.10.7) Analytical Services Managers and the designated subcontracting administrator must ensure all applicable quality documents specified in section 3.10.4 to evaluate subcontractor's qualifications are submitted to EEA for review by the subcontracting administrator. The subcontracting administrator will ensure that all approved subcontract labs and EEA's representatives have signed the required Subcontract Vendor Agreement/checklist. Before subcontracting samples, the designated subcontracting administrator shall review certifications to ensure that the laboratory's subcontractor's certification/ accreditation is current. If certification is not current, the subcontracting administrator shall contact the vendor for a current copy of the vendor's certification before shipping samples.

3.10.8) A register of all subcontractors and a record of evidence (such as NELAP accreditation or appropriate compliance to applicable regulatory requirements) are kept by the designated subcontracting administrator [TNI-EL-V1M2-2009-4.5.4][(ISO/IEC 17025:2005(E)-4.5.4]. A list of subcontracted laboratories approved by EEA is available in the server.

3.10.9) For samples originating in Massachusetts and subcontracted to another lab, EEA must identify, in writing, those samples needing special reports (e.g. MCL exceedance). The subcontract laboratory is responsible for notifying EEA and Massachusetts DEP of any MCL exceedances within 24 hours of obtaining valid data.

3.10.10) Refer to the current Subcontracting of Environmental Tests SOP for detailed Subcontracting procedures.

3.11) FACILITIES
3.11.1) ACCOMODATIONS

EEA's main laboratory is located at 750 Royal Oaks Drive, Suite 100 in Monrovia, California. It has more than 20,000 square feet of analytical laboratory workspace plus almost 15,000 square feet of support space with a staff of 109 in 2011. For security reasons, floor plans may only be viewed on-site.

The Monrovia facility is controlled by access control locks which provide entry through plastic keycards stored with the card number and name of each employee.

Departments of the Main Laboratory include:

Asbestos
GC extractables/volatiles
GC/MS extractables/volatiles
Ion Chromatography
LC/MS/MS Extractables
Metals/Metals Prep
Microbiology
Organic extractions
Radiochemistry
Sampling
Sample Disposal
Sample Receipt
Shipping – sample bottle preparation
Wet Chemistry (including General Physical)

In addition to the Monrovia facility, there are six service centers that are a part of the laboratory.

- The Inland Empire Service Center/Microbiology Lab located at 1012 E. Cooley Dr., Suite P, Colton, CA 92324;
- The Sacramento Service Center/Microbiology Lab is located at 180 Blue Ravine Road, Suite B, Folsom, CA 95630;
- The Fresno Service Center/Microbiology Lab is located at 1921 North Gateway, Suite 101, Fresno, CA 93727;
- The Phoenix Service Center located at 15953 N. Greenway Hayden Loop, Suite C, Scottsdale, AZ 85260;
- The Denver Service Center is located at 1746 Cole Boulevard, Suite 225, Lakewood, CO 80401;
- The Portland Service Center is located at 1500 NW Bethany Blvd, Suite 200, Beaverton, OR 97006.

The management systems that are compliant with TNI Standards and ISO 17025 that are documented in the laboratory Quality Manual covers work carried out in the Monrovia facility and in-house sampling procedures associated with field activities.

3.11.2) ENVIRONMENTAL CONDITIONS

3.11.2.1) The laboratory ensures that the laboratory environment conditions do not invalidate the results or adversely affect the required quality of any measurement. All tests are stopped when the environmental conditions jeopardize the results of the tests.

3.11.2.2) The laboratory monitors, controls and records environmental conditions as required by the relevant specifications, methods and procedures, or where they influence the quality of the results.

3.11.2.3) Biological sterility and dust are monitored in microbiology to ensure that environmental conditions do not jeopardize the results of the environmental tests and/or calibrations. The laboratory micro walls, floors, work surfaces are non-absorbent and easy to clean and disinfect. Due attention is also paid to electromagnetic disturbances, radiation, humidity, electrical supply, temperature, and sound and vibration levels, as appropriate to the technical activities concerned.

3.11.2.4) Incompatible areas such as Volatiles, Sample Extraction, Microbiology, culture handling or incubation, Radiochemistry preparation areas are separated to prevent cross-contamination.

3.11.2.5) The laboratory work spaces are adequate, and appropriately clean to support environmental testing and ensure an unencumbered work area.

4) PROGRAM ORGANIZATION AND MANAGEMENT

EEA maintains a management system that is appropriate to the scope of its activities [TNI-EL-V1M2- 2009-4.2.1] [ISO/IEC 17025:2005(E)-4.2.1]. All EEA's analysts and technicians analyzing drinking water samples meet the minimum qualifications specified in the Manual for the Certification of Laboratories Analyzing Drinking Water, Criteria and Procedures, Quality Assurance, 5th Edition. The organization and chain of command for the laboratory is shown in Figure 4-6. Details of assigned positions, responsibilities and qualifications for senior management personnel are summarized below. Management ensures communication within the organization to maintain an

effective management system and to communicate the importance of meeting customer, statutory, and regulatory requirements [TNI-EL-V1M2- 2009-4.1.6][ISO/IEC 17025:2005(E)-4.1.6]. The laboratory is organized in such a way that managerial staff has the authority and resources needed to discharge their duties. When changes to the management system occur or are planned, top management ensures that the integrity of the system is maintained [TNI-EL-V1M2- 2009-4.2.7][ISO/IEC 17025:2005(E)-4.2.7].

Top Management includes both the President and Laboratory Director. The President makes decisions on policy, endorses the quality policy statement, and allocates resources to implement and maintain the quality system. The Technical Director, Quality Manager, Technical Managers, and deputies are part of the management staff. The Quality Manager reports directly to the EEA President and has the authority to make independent technical judgment not influenced by production, marketing and financing issues. Qualified supervisors are certified as to their educational and technical background and experience, to ensure that supervision is provided by persons familiar with the calibration or test methods and procedures, the objective of the calibration or test and the assessment of the results. Technical Management and the Quality Manager ensure compliance with the ISO 17025 standard.

4.1) EEA'S PERSONNEL

4.1.1) President: Mr. Dennis Leeke

Mr. Leeke has a baccalaureate degree major in Biology, minor in Chemistry and has more than 20 years experience in the analysis of water and wastewater. He also has a Master's Degree in Microbiology. As President, his ultimate responsibility is ensuring the operational efficiency and accuracy of laboratory procedures, cost analysis, overhead control, marketing, and project management across all lab facilities.

4.1.2) Laboratory Director: Mr. Daniel Lashbrook

Mr. Lashbrook has a BS Degree in Interdisciplinary Science from the University of North FL. He started his environmental lab career with Columbia Analytical Services in Jacksonville, FL and became the Department Manager and Organics Technical Manager during his ten years with Columbia Analytical. He moved to Pace Analytical Services as Organics Technical Manager strictly to set up the UCMR3 program. Upon completion of UCMR3, he moved later to PA to join Microbac as a Corporate Operations Specialist in order to consolidate the acquisition of several laboratories. He was Branch Manager for Energy Labs in Casper, WY, a full service environmental laboratory. Mr. Lashbrook was the Laboratory Director/Technical Director of Energy Laboratories, a NELAP accredited laboratory from 2014-2016 and was the Technical Director/ Semi-VOA Organic Manager of Pace Analytical Services, Ormond Beach, FL from 2012-2013, a NELAP accredited lab. As Laboratory Director/Technical Director for Inorganics/ Organics/RAD of EEA, he is in charge of all analytical and operational laboratory activities and supervises all lab Technical Managers and all employees. Mr. Lashbrook will also ensure the accuracy and quality of all data reported by the laboratory and the operational efficiency and accuracy of laboratory procedures of the Monrovia facility.

4.1.3) Technical Director: Dr. Andrew Eaton

Dr. Andrew Eaton has over 32 years of analytical experience including over 20 years of managerial experience. In his capacity as Technical Director, Dr. Eaton certifies that personnel with appropriate educational and/or technical background perform all tests for which the laboratory is accredited. Such certification for each personnel is documented in the analyst's initial demonstration of capability (DOC) certification. The initial DOC certification statement was modified to include the certification for the analyst for having the appropriate educational and/or technical background. A copy of the certification statement is retained in the training files of each affected employee. Dr. Eaton is responsible for Project Management on large projects with significant technical issues, serves as a technical advisor to the laboratory staff and clients, works on special assignments such as productivity assessments and financial analyses, as well as marketing activities with clients whose projects are highly technical in nature. Dr. Eaton also serves as a member of the Joint Editorial Board for Standard Methods for the Examination of Water and Wastewater (SM). In this capacity, he is responsible for recommending new methods for inclusion in SM and ensuring that all proposed methods include appropriate levels of QC and validation. He is a former member of the TNI Advocacy Committee. Formerly on the Board of actLABS, Dr. Eaton also served as a member of The Methods and Data Comparability Board, which reports to the National Water Quality Monitoring Council.

4.1.4) Asbestos Technical Manager: Ms. Carol J. Belt

Ms. Belt has over 32 years of environmental laboratory experience in EEA conducting microbiology and asbestos analyses. Her expertise includes analysis of drinking water and wastewater samples for microbiological testing and asbestos analysis. She is responsible for training analysts in various microbiological procedures and in the analytical method for the determination of asbestos fibers in water. As the Technical Manager for Asbestos analysis, Ms. Belt has the overall responsibility for the technical operation of the asbestos testing in the laboratory and currently oversees all aspects of the asbestos testing. She is responsible for monitoring the performance of the entire procedure and accurate reporting of all samples received for asbestos analysis. She is also responsible to

train other technicians on this methodology and to certify trained analysts as to their educational and technical background and demonstration of capability.

4.1.5) Client Services Manager/ Deputy Laboratory Director/ Deputy Technical Director: Ms. Linda Geddes

Ms. Geddes has over 32 years experience in the field of analytical chemistry related to environmental issues, including three years as the Quality Assurance Manager at another laboratory, over five years of experience in pharmaceutical chemistry, and 2 years as QA/QC Officer for EEA. Her experience has encompassed analytical methods development and validation for soils, sediments and water, maintaining a quality assurance program and managing Department of Defense site assessment projects. These projects have required coordination of schedule, personnel, budget, and compliance to technical specifications for local, state, and federal agencies, as well as private sector companies. These included compliance monitoring under the Coliform Rule, the Lead and Copper Rule, Phase II and V, the Information Collection Rule (ICR), and the Unregulated Contaminant Monitoring Rule (UCMR). Prior to becoming the Quality Assurance Officer, Ms. Geddes was a Project Manager at EEA for eight years.

Ms. Geddes is responsible for the daily supervision of 9 Analytical Services Managers.

In the absence of the Laboratory Director and Technical Director, Ms. Geddes is designated as the Deputy Laboratory Director and Deputy Technical Director.

4.1.6) Quality Manager/Regulatory Consulting Manager: Ms. Nilda B. Cox

Ms. Cox has over 23 years of environmental experience in Quality Assurance/Quality Control including hazardous waste management and safety compliance in the laboratory. Her experience also includes eight years as senior chemist and supervisor of chemistry QA/QC Methods Development Group, and in-charge of the Industrial Hygiene Monitoring Program for a medical device company. Additional experience includes six years in Research and Development in the field of agriculture. Ms. Cox is responsible for providing QA solutions to our clients.

Ms. Cox is supervising internal QA, Consulting, Hazardous Waste and Sample Disposal, and Sampling. She supervises a total of 12 staff. In addition to supporting internal QA/QC, Ms. Cox serves as a resource for numerous outside entities, providing consulting services in the area of QA/QC to assist them in the development of their own in-house QA Programs.

In the absence of the Quality Manager, Robert Dean, Andora Nguyen, and Shu Ting Liu are authorized as the Deputy Quality Managers.

4.1.7) Technical Manager/LCMS Supervisor: Mr. Ali Haghani

As EEA's Technical Manager/LCS Supervisor, Mr. Haghani is responsible for method development of new methods and for asset management and currently supervising 4 analysts. Mr. Haghani was previously responsible for overseeing six supervisors and a staff of over 50 analysts performing sample preparation and analysis of environmental samples for organics and a wide range of inorganic parameters. He was also responsible for the day-to-day scheduling of analysts workloads, providing guidance and technical expertise to the analyst, and checking the validity of their work. Mr. Haghani has over 18 years of experience in the environmental monitoring business and has technical expertise in inorganic and organic analytical chemistry.

4.1.8) Technical Manager/Extraction/GCMS/GC and HPLC Supervisor: Mr. Charles Grady

Mr. Grady has over 23 years experience in environmental extraction, environmental wet chemistry, environmental GC and environmental GC/MS. He also has experience in hazardous waste, drinking water and waste water testing. Mr. Grady also has two years of experience as an instrument repair service technician.

As Technical Manager/Extraction/GCMS/GC and HPLC Supervisor for EEA, Mr. Grady is responsible for supervising 26 analysts, meeting quality control and method requirements, scheduling work, recruiting and training staff, and managing the group budget. He works closely with Client Services, the Lab Director, and department managers to schedule incoming work and to meet QC requirements and specific client needs.

4.1.9) Technical Manager/Inorganic Supervisor: Mr. Walter Hsieh

As EEA's Metals/Radiochemistry/Wet Chemistry supervisor, Mr. Hsieh is responsible for day to day supervision of a staff of 25 analysts performing inorganic analyses such as metals, radiochemistry and wet chemistry. Mr. Hsieh schedules analysts' workloads to ensure that holding times are not exceeded, approves final data, and insures that all QA guidelines are met. Mr. Hsieh has over 23 years experience performing metal and organic analyses in environmental laboratories.

4.1.10) Technical Manager/Microbiology Supervisor: Mr. Derrick Davis

Mr. Davis has over 8 years of Microbiology experience. He has been with Eurofins Eaton Analytical Monrovia since December 2013 and was the Interim Microbiology Technical Manager since 8/7/2015. He obtained his BS degree in

Biotechnology with an emphasis in Microbiology and Pathology from California State Polytechnic University, Pomona. Mr. Davis ensures that all holding times are not exceeded and that all QA guidelines are met. Mr. Davis is responsible for the daily supervision of a staff of 9 laboratory personnel.

4.1.11) OneIT Director: Daniel Santaniello

The OneIT Director is responsible for all aspects of development, deployment and maintenance of information technology solutions, such as eLIMS-EP, employed within all Eurofins Environment Testing US business units. Mr. Santaniello is based out of the Lancaster Laboratories campus. Prior to joining Eurofins, Mr. Santaniello held senior and executive IT leadership roles in the laboratory services industry and has personally directed the development and deployment of two multi-lab LIMS platforms. In addition, Mr. Santaniello has led IT related activities associated with multiple business unit acquisitions and integrations.

4.2) QUALITY SYSTEMS PROGRAM AND ITS MANAGEMENT

The Quality Systems Program is dynamic and is updated frequently when changes to policy and procedures are necessary. The Quality Manager has direct access to the highest level of management, which is the President, where decisions are made on laboratory policy or resources [TNI-EL-V1M2- 2009-4.1.7.1]. It is the responsibility of the Quality Manager to oversee all aspects of this program and document the participation of all staff members. In order to administer and manage this program, the Quality Manager must be knowledgeable in the TNI Quality Systems and ISO 17025 Current Standards and their implementation [TNI-EL-V1M2- 2009-4.1.7.1, 4.2.8.2]. Attendance at the TNI Interim and annual Conferences shall be documented in the training files of the Quality Manager.

Vital areas of the Quality Systems Program include:

4.2.1) Preparing annual reports to management on QA related activities in the laboratory. Through the annual report, the Quality Manager notifies the laboratory management of deficiencies in the Quality Systems and monitors corrective actions. (Section 16.4) This includes a periodic QA report, reports on internal and external PT samples, and verbal transmittal of QA information to the Laboratory Director and group supervisors during a weekly staff meeting.

4.2.2) Coordinating analyses of Proficiency Testing (PT) (i.e. water supply study-WS, water pollution study-WP) or blind performance samples; investigating any problems associated with the results; reviewing results, problems and corrective actions with the analytical and supervisory staff; providing timely response to certification authorities with respect to any identified problem areas. (Section 16.3)

4.2.3) Implementing procedures that allow for adequate documentation and control of specific documents. These procedures use a unique identification system that allows for tracking, training documentation, traceability of official copies and the time period the procedure or document was in force. Refer to Policy-QP2478 for the detailed document printing policy.

4.2.3.1) The Quality Manual and Standard Operating Procedures (SOP) of EEA are reviewed and updated if needed at least once a year to ensure continuing suitability and compliance with applicable requirements. The changes are clearly marked, initialed and dated by the personnel that performed the original review. The revised document formerly reissued as soon as practicable [TNI-EL-V1M2- 2009-4.3.3.3, 4.3.3.1][ISO/IEC 17025:2005(E)-4.3.3.3, 4.3.3.1].

The SOPs/ Quality Manual are distributed through the D4 system and date of completion of the analyst SOP/QM training documentation are documented in the D4 system. See EEA Policy-QP2715 for further details.

4.2.3.2) See Table 4-1 for a list of SOPs.

4.2.4) Documenting participation and performance of the laboratory staff in initial and continuing training courses.

4.2.5) Overseeing and maintaining the training program files for each analyst at EEA.

4.2.6) Providing guidelines for the QS orientation program to newly hired personnel and ensuring that they are familiar with the quality systems program operating within the laboratory.

4.2.7) Interacting with auditors and certifying authorities for in-state programs, out-of-state programs, and

internally to the laboratory. (16.2)

4.2.8) Serving as focal point for initiation, implementation, review and dissemination of QA/QC Guidelines to ensure that data quality meets the objectives of certifying authorities and maintaining documentation of those guidelines.

4.2.9) Maintaining copies of procedural write-ups and QA documentation files, and ensuring that all personnel working in the laboratory follow established standard operating procedures that do not compromise the quality of data submitted to clients or violate rules and guidelines from certifying agencies.

4.2.10) Monitoring long-term quality control trends with LIMS query and also ensuring that analysts are monitoring long-term quality control trends with quality control charts and insuring that corrective action is initiated whenever an out of control event occurs.

4.2.11) Ensuring that sample log-in and traceability are done correctly and that the chain of custody forms and other relevant documentation are properly maintained by periodic spot checks of the records.

4.2.12) Implementing a record management/archival system for control of laboratory notebooks; instrument logbooks; standard logbooks; records for data reduction, validation, storage, and reporting; training records for personnel no longer with the laboratory; outdated manuals and SOPs; and the eventual removal of outdated documentation. Archived information are scanned and the hardcopies are stored physically in-house for no longer than 1 month after the files are scanned. Electronically scanned files are stored for 10 years. All hard copies and electronic files for Asbestos test method are stored for 30 years. Refer to the current Control of Records SOP for detailed archiving procedures.

4.2.13) A log of names, initials and signatures for all individuals responsible for signing or initialing any laboratory records is maintained by the QA group.

4.2.14) Writing or reviewing QA project specific plans.

4.2.15) Providing the staff with quality assurance information and updates.

4.2.16) Ensuring that all laboratory procedures currently in use are acceptable and will not compromise quality.

4.2.17) Where QA oversight is needed, the Quality Manager (or designee) functions independently from the laboratory operations. The Quality Manager evaluates data objectively and performs assessments without managerial influence. The Quality Manager may enlist the aid of various supervisors of the analytical groups in order to achieve these objectives. The Quality Manager and/or a designee must perform periodic audits of laboratory data or procedures to ensure that QA objectives are being met. The Quality Manager or designee must have a general knowledge of the analytical test methods for which the data review is performed and will arrange for or conduct annual internal audits per TNI-EL-V1M2-2009-4.1.7.1.e and 4.1.7.1.f.

4.2.17.1) Maintaining current certifications, licenses and accreditation materials. See section 3.9 for more information about certification.

4.3) STAFF RESPONSIBILITY

A comprehensive Quality Systems Program requires the involvement of all laboratory personnel. The level of involvement for each staff member is dependent upon his or her assignment within the laboratory. EEA ensures that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the objectives of the management system [TNI-EL-V1M2- 2009-4.1.5.5][ISO/IEC 17025:2005(E)-4.1.5.k]. Laboratory analysts are responsible for quality control parameters that are done at the time of analysis. Laboratory management is responsible for monitoring and evaluating the results of the quality control procedures performed by the analysts.

The minimum level for qualifications, experience, and skills necessary for each position varies by job position. A list for each position is available in QA for review. The laboratory follows minimum requirements as per the EPA Drinking Water Manual and TNI Standards.

4.3.1) Initial Training

4.3.1.1) The objective for data generated by EEA is that the quality and consistency of the data produced be independent of the analyst performing the analysis. This can only occur when all analyses are performed using SOPs, and the analyst performing the procedure has been properly trained and has demonstrated proficiency with the analysis. This is accomplished at EEA by having a training checklist for each group or set of analyses within a group.

4.3.1.2) This checklist is followed for each trainee analyst by the group supervisor with the help of an assigned analyst mentor. The trainee is issued a set of training materials (i.e. safety information, SOP, Ethics SOP, method reference etc.) and is given hands-on training under the direct supervision of the mentor analyst or supervisor. Progress is monitored closely for the first three to six months by using frequent performance reviews, quality control check samples, performance audits and bench sheet reviews.

4.3.1.3) IDC Certification serves as a record of Authorization and Competence [TNI-EL-V1M2- 2009-5.2.5][ISO/IEC 17025:2005(E)-5.2.5]. All Analysts, including contracted personnel when hired, are required to undergo the same training (IDC, MDL Studies, ability to achieve a low background, the precision and accuracy required by the method and satisfactory performance on a PT sample), and IDC Certificate of Competence [TNI-EL-V1M2-2009-5.2.1] [ISO/IEC 17025:2005(E)-5.2.1]. A copy is filed in the analyst training record. Demonstration of Capability will also be done for analysts working as a unit. Examples are extraction analysts preparing the IDC and MDL samples and the prepared sample analyzed by the appropriate GC, GCMS, or HPLC analysts. IDC certification is completed for the group of analysts.

4.3.1.4) Initial training for a field sampling personnel is done through overall sampling procedure technique review and through duplicate samples for each new method and/or matrix that each of the field sampling personnel first performed.

For field sampling testing, DOC and MDL studies are performed initially and repeated at the frequency that the specific method requires.

4.3.2) On-going Training/Annual Competency Check
The laboratory performs an annual competency check for each analyst to ensure that each technical employee demonstrates an initial and ongoing proficiency for the tests performed by the technical employee.

On-going proficiency checks are conducted to ensure that the training of personnel is kept up-to-date by the following:

4.3.2.1) A certification that the technical personnel have read, understood and agreed to perform the most recent version of the test method (the approved method or standard operating procedure) and documentation of continued proficiency by at least one of the following once per year:

4.3.2.1) 1. Acceptable performance of a blind sample (single blind to the analyst).

4.3.2.1) 2. Another initial demonstration of method performance

4.3.2.1) 3. Successful analysis of a blind performance sample on a similar test method using the same technology (e.g., GC/MS Volatiles by purge and trap for 524.2, 624 or 5030B/8260) would only require documentation for one of the test methods [TNI-EL-V1M3 to V1M4-ISO-2009]. The laboratory must determine the acceptable limits of the blind performance sample prior to analysis. The laboratory uses the Provider acceptable TNI limits of any blind PT sample that is used to document the annual proficiency documentation for each analyst.

4.3.2.1) 4. At least four consecutive laboratory control samples with acceptable levels of precision and accuracy as per method specified precision and accuracy limits.

4.3.2.1) 5. If the previous item cannot be performed, because spiking is not an option or QC samples not available, analysis of authentic samples that have been analyzed by another trained analyst with statistically identical results or analysis of Proficiency Test samples obtained from NIST approved providers can be done.

4.3.2.1) 6. For specialized situations where extraction analysts have to do the sample preparation for LCS and MDL samples and the analyses of the prepared samples are done by the analysts belonging to another group, such as GC or GCMS areas, the group as a unit completes a Demonstration of Capability.

4.3.2.2) Evidence on file that demonstrates that each employee has read, understood, and is using the latest version of the laboratory’s in-house SOP documentation and all other documentation, which relates to his/her job responsibilities.

4.3.2.3) Training courses or workshops on specific equipment, analytical techniques or laboratory procedures shall all be documented.

4.3.3) Training Records
A training file for each analyst and method is kept in the QA department along with a training history form completed at the inception of the present training program or at the time of employment. Each analyst’s training

file includes; a resume indicating the analyst's qualifications, experience, transcript of records, job description, and an initial demonstration of capability (IDC) and continuing demonstration of proficiency for each analyst. Up-to-date training records of courses in ethical and legal responsibilities, including potential punishments and penalties for violations, are kept in the QA department.

5) QUALITY ASSURANCE OBJECTIVES

Before analytical data can be used, the quality of data produced by EEA is measured by the following characteristics: precision, accuracy, completeness, representativeness, comparability, timeliness, and documentation, used in the determination of the suitability of the data for a given purpose. EEA has set specific objectives for each of these characteristics as a means of meeting the data quality objectives of the client. A definition of each of the characteristics follows, along with the specific objectives for each of the characteristics.

Table 5-1 lists specific limit objectives for precision and accuracy for drinking water analyses.

Table 5-2 lists specific limit objectives for precision and accuracy for wastewater analyses.

Table 5-3 lists specific limit objectives for precision and accuracy for hazardous waste analyses.

Criteria for precision and accuracy included are only for representative reference methods. Criteria for the other methods and specific analytes can be found in relevant SOPs.

5.1) PRECISION

Analytical precision is an important component of overall data quality since it is a measure of how far an individual determination may be from the mean of replicate measurements (how well replicate analyses agree). If the precision of an analysis is poor, there is a good probability that the reported result will differ substantially from the true value even if there are no systematic errors leading to bias in the result. Precision is often directly related to concentration.

5.1.1) EEA uses Relative Percent Difference (RPD) to measure agreement between duplicate analyses. RPD is calculated as follows:

$$\mathbf{RPD} = \frac{(S-D)}{(S+D)/2} \times 100$$

where;

RPD = Relative Percent Difference
S = First Sample Value (original)
D = Second Sample Value (duplicate)

5.1.2)
The precision of a method is expressed as the Relative Standard Deviation (RSD) of the percent recoveries. Percent RSD (%RSD) is calculated as follows:

$$\mathbf{\%RSD} = \frac{S}{X_{ave}} \times 100$$

where:

X_{ave} = the arithmetic mean of the recovery values, and

$$S = \sqrt{\sum \frac{(X_i - X)^2}{n-1}}$$

where:
S = Standard Deviation
X_i = The individual recovery values

X = The arithmetic mean of the recovery values
n = The number of determinations

5.1.3) To assess precision in the laboratory, EEA uses the following:

- Duplicate Samples
- Duplicate Matrix Spikes
- Duplicate Laboratory Control Samples
- Control Charts

5.2) ACCURACY
Accuracy is the agreement between an experimentally determined value and the accepted reference value (deviation of the analytical value from the "true or known value). Analytical accuracy is a measure of analytical bias due to systematic errors. A measure of this bias along with a measure of the precision will provide the overall accuracy of the results.

The true value for field samples are never known, so accuracy measurements are made on the analysis of QC samples analyzed with field samples. The primary QC tools for assessing accuracy are control standards (LCSs), matrix spikes and spike duplicates (MS/MSD), and surrogate spikes.

5.2.1)
Spike recoveries are calculated as follows:

$$\%R = \frac{SSR - SR}{SA} \times 100$$

Where; %R = percent spike recovery
SSR = spiked sample result
SR = sample result
SA = spike amount added

5.2.2)
For Laboratory Control Samples, percent recovery (%R) is calculated as follows:

$$\%R = \frac{\text{found concentration}}{\text{true concentration}} \times 100$$

5.2.3) Accuracy is monitored for nearly all methods by percent recoveries of the LCSs and plotted on control charts. The mean recovery ± 2 standard deviations are the warning limits, and the mean recovery ± 3 standard deviations are the control limits. In the event that the method has no acceptance criteria, control charts are reviewed and evaluated to establish internal limits or guidelines [TNI-EL-V1M4-2009-1.7.4.2.a].

To assess accuracy, EEA uses the following:

- MRL Checks
- Laboratory Control Samples
- Matrix Spikes
- Certified Reference Materials
- Blind QC Samples
- Control Charts

5.3) REPRESENTATIVENESS/SAMPLING OF SUB-ALIQUOT
All sample aliquots, which are analyzed, must be representative of the bulk sample from which they are taken [TNI-EL-V1M2-2009-5.7.1][ISO/IEC 17025:2005(E)-5.7.1]. Representativeness is easily achieved for aqueous samples free of suspended material. Obtaining a representative sample is a more difficult task for soils and sludge.

Unless a sample is known to be non-randomly heterogeneous in its composition, the most appropriate manner of obtaining a representative aliquot for analysis is by simple random sampling after the material has been mixed as thoroughly as possible. Thorough mixing is acceptable for inorganic analyses, but any samples requiring volatile or semi-volatile organic analyses must be handled in a manner which minimizes loss of these volatile compounds from the sample.

Representativeness is also impacted by conditions of sample receipt. EEA documents all samples that do not meet acceptance criteria (TNI-EL-V1M2-2009-5.8.3) (ISO/IEC 17025:2005(E)-5.8.3).

The laboratory documents the sampling techniques of aliquots from a submitted sample in the method SOPs to ensure that representativeness of samples are obtained. (TNI-EL-V1M2-2009-5.7.1)(ISO/IEC 17025:2005(E)-5.7.1).

5.4) COMPARABILITY
The characteristic of comparability determines whether analytical conditions are uniform for each analytical run to insure that all of the reported data will be consistent. This requires temporal stability of analytical conditions within the laboratory.

To insure temporal stability, uniform analytical and quality control protocols will be closely adhered to for each analytical run. In addition, traceable standards are used as part of every analytical run. Every analyst is required to demonstrate his precision and accuracy for a particular analysis by analyzing four replicate matrix spiked samples. All newly trained or backup analysts must demonstrate comparable precision and accuracy.

5.5) COMPLETENESS
The characteristic of completeness is a measure of the percentage of specified data which are valid. Valid data are obtained when samples are analyzed in accordance with the quality control procedures outlined in this manual and none of the quality control criteria is exceeded.

Sample data which does not meet the specified quality control criteria will automatically be reanalyzed if sufficient quantity of sample is available and analytical holding times have not been exceeded. The laboratory strives for a completeness percentage of 100%.

5.6) TIMELINESS
EPA guidelines require that samples be analyzed for constituents within specified holding times. These holding times represent a compromise between allowance of a realistic time to perform the analysis and minimization of elapsed time to insure sample integrity.

EEA has adopted a computerized sample tracking system and supervisory review process to insure that samples are scheduled for extraction and analysis within the EPA holding times. In the unforeseen circumstance of instrument performance problems, EEA will do everything possible to meet EPA holding times without compromising the quality of the reported data. The client is notified if a holding time is exceeded.

5.7) DOCUMENTATION
Proper documentation is a vital component in supporting the integrity of analytical results. All of the proceeding quality control components will not support reported data unless they have been fully documented for subsequent review. EEA maintains documentation of sample handling, chain of custody (if applicable), analytical procedures, raw and calculated data, supporting chromatograms, quality control data, and final reports. Please see section 14 for data reduction, validation, and reporting procedures.

NOTE: When the method does not specify the Acceptance Limit, recovery limits are based on control charts.

6) QUALITY OF TEST RESULTS
6.1) ESSENTIAL QUALITY CONTROL PROCEDURES
The laboratory has established a quality control program that is designed to provide two different types of information about a particular analysis. The ability to confidently evaluate laboratory performance in terms of analytical bias and precision is accomplished through the use of both laboratory control samples (LCS), in the absence of sample matrix effects, and the traditional approach of using matrix spikes and duplicate (MS/MSD) analyses.

The quality control program implemented at EEA recognizes the problems associated with the use of matrix spikes and duplicates, and thus decisions regarding method data quality, when matrix effects are present, are made using data obtained from all control samples. The types and frequencies of control samples used at EEA are summarized below. Method Acceptance Limits are used to validate analytical results for each test. When method reference does not specify acceptance limits for the QC type, control limits are calculated and used as acceptance limits. The Control limits are recalculated at least annually for drinking water and waste water matrices and every 6 months for Hazardous Waste matrix. (See relevant SOP for the current control limits).

6.1.1) NEGATIVE CONTROL

6.1.1.1) Method Blanks

A method blank consists of laboratory pure water containing all of the reagents utilized in the analytical procedure. The method blank is prepared in the same manner as a sample and is processed through all of the analytical steps. All reagents are dated upon receipt in the laboratory and each new lot of reagents is checked by performance of method blanks.

Method blanks are processed along with the associated samples (minimum one MB per prep batch or analytical batch of ≤ 20 samples) performed to determine whether there is reagent contamination or instrument contamination due to sample carryover. The method blanks must remain below the MRL for each analyte of interest. Some analyses (see specific SOPs) have a more stringent requirement (e.g. < ½ or < 1/3 MRL). If samples require a preparatory procedure such as a digestion or extraction prior to analysis, a method blank must be carried through the entire process and analyzed in addition to the instrumental calibration blanks.

When a blank is determined to be contaminated, the cause must be investigated and measures taken to minimize or eliminate the problem. Samples associated with a contaminated blank shall be evaluated as to the best corrective action for the samples (e.g. reprocessing or data qualifying codes). In all cases the corrective action must be documented [TNI-EL-V1M4-2009-1.7.4.1.c].

Method blanks are analyzed as part of the initial or daily calibration process (calibration blanks) and after every 20 samples for each matrix type to monitor the overall procedural blank as well as the purity of the reagents. If analyte in method blanks is >MRL and is >1/10 of amount measured in sample and if blank contamination affects samples or individual data, quality, objectives, the problem is eliminated and reprocessed or affected samples appropriately qualified.

6.1.1.2) Travel Blanks

The trip blank is required to be analyzed in the event of any detects in the associated field samples per the referenced method. For example, both methods 504.1 and 524.2 for volatiles determination require a trip blank with each set of samples.

When running method 525.2 for phthalates determination for compliance monitoring purposes, the laboratory runs a trip blank if any of the samples are found positive for phthalates. This is necessary to show that samples were not contaminated from bottle caps, the HCl used for preservation, or the latex gloves worn during sampling. If the samples show the presence of phthalates and there was no trip blank with the set of samples then subsequent resamples from the site must be accompanied by a trip blank. If the samples are not to be analyzed for phthalates, the laboratory does not need to run a trip blank.

If a client has submitted a trip blank and wishes it to be analyzed automatically, the sample is logged in with the appropriate tests and with the log-in ID "Trip Blank" so that analysts will know to analyze and report them.

If a trip blank is submitted and is only to be analyzed in the event of hits, the sample is logged in with an ID of "Trip Blank-Hold."

For the analysis of ethylene dibromide and dibromochloropropane by Method 504.1 and phthalates by method 525.2, the analyst and supervisor ensure that if hits are detected in the associated samples, the trip blank is analyzed and reported within holding times.

Because of the relatively short holding times for VOAs by Method 524.2 and 504.1, the trip blanks are usually analyzed (unless specified by client) whether or not there are hits in the associated sample. In this way, Trip Blanks are always analyzed within holding times.

If there is adequate holding time remaining the analyst may elect to not analyze the trip blank. However in this case, the data must be reduced immediately and if there are hits, the sample must be analyzed on the next run, still within holding time. In the event that no hits are present in the associated client samples the analyst and supervisor enter NA for the trip blank and preferably place a comment on the sample "not analyzed, no hits in field samples".

In the event that an analyte is detected in the trip blank, the analyst gets the associated stationary blank from shipping, if available, and runs that immediately to confirm that the hits are not due to lab contamination when the blank was prepared. The information to associate the proper trip blank to the sample(s) is be found on the sample bottle label, through the LIMS numbering system, and/or on the COC.

6.1.1.3) Field Blanks
Field blanks are used to identify contamination that may have occurred during the sample collection process. Empty containers with the applicable preservatives are sent to the field and filled at the sampling location at the time of sampling from a bottle with analyte-free water that was prepared at the laboratory as per client's request. The empty sample bottle and field blank sample bottle will be provided.

6.1.1.4) Sample Blanks
Sample blanks are used with spectrophotometric methods where sample characteristics such as color may give erroneous results. The absorbance of a sample is measured before and after the color development process. The absorbance before is subtracted from the absorbance after to give the true absorbance. Sample blanks are analyzed on an as-needed basis.

6.1.1.5) Calibration Blanks (CB)
For non-chromatographic analysis, calibration blanks are prepared along with the calibration standards and differ from the standards only in that the calibration blank does not contain any of the analyte(s) of interest. The calibration blank, by definition, provides the "zero point" in the calibration curve.

6.1.2) Positive Control
6.1.2.1) Laboratory Control Sample (LCS)/Laboratory Fortified Blank (LFB)
The LCS is used to evaluate the performance of the total analytical system, including all preparation and analysis [TNI-EL-V1M4-2009-1.7.3.2.1].

Laboratory control samples (LCSs) are defined as an interference free matrix spiked with a particular set of method-specific target compounds at a level 5-10 times above the minimum reporting limit. The matrix used to prepare aqueous LCS samples is laboratory reagent water (deionized water - carbon-filtered for organic analyses) and all method preservatives. In some cases LCS must be from a second or independent source, but other methods allow for the use of same sources. LCS is run at a frequency of one LCS per prep batch or analytical batch of ≤ 20 samples.

The purpose of the LCS matrix is not to duplicate the sample matrix, but more importantly to provide a consistent matrix with which baseline performance data for an analysis can be generated. This feature of the LCS provides one of the most significant advantages over the use of matrix spikes and spike duplicates. The variable matrix interferences inherent to matrix spikes and spike duplicates are manifested in the extremely wide control limits presented in the methods. This variability results in a large relative standard deviation in the data used to calculate the control limits which forces the control limits to become wider. The control of this variability significantly reduces the relative standard deviation of the data and results in control limits that are representative of laboratory precision alone.

6.1.2.2) Matrix Spike and Matrix Spike Duplicate Samples (MS/MSD)
MS/MSD samples are defined as a sample matrix spiked with a particular set of method-specific target compounds at a level 5-10 times above the minimum reporting limit. Samples are generally divided into two types of matrices, aqueous and non-aqueous.

Matrix spikes and spike duplicates are prepared using a sample matrix that is representative of the sample type being analyzed for a particular method. Frequency of the analysis of matrix spikes is as per method specifications or as per contract review.

6.1.2.3) LCS and MS/MSD Concentration Levels
When the method reference does not specify the LCS and MS/MSD concentration, the following criteria (in order of descending preference) are to be applied when determining the appropriate concentration of any particular analyte in the designated control sample:

6.1.2.3) 1. If no MCL exists, or the MCL represents an impractical level relative to MDL or calibration range, the selected level must be set at the corresponding level used in the EPA's reference methods.

6.1.2.3) 2. The level selected must be equal to any existing federal maximum contaminant level (MCL). This may not always be practical (as in the case of thallium [Tl]) when the MCL is too close to our actual MRL to yield consistent accuracy and precision.

6.1.2.3) 3. If there is no EPA protocol for a particular method, or this level is inappropriate for the method, then the selected level must be near the midpoint of the calibration range. Optimally, this would be equivalent to the MCL, unless the calibration range spans more than 2 orders of magnitude.

6.1.2.3) 4. If the calibration range spans 2 or more orders of magnitude, the selected level must be set at approximately 10 times the MRL for each analyte.

In some cases multiple levels (MRL, midpoint, high) are used to monitor control throughout the calibration range.

6.1.2.4) Selection of Spike Analytes
Any analyte reported must be included in the LCS and MS spiked sample for drinking water matrix samples. The selection of specific analytes to be spiked must be based on the following scheme:

6.1.2.4) 1. If there are regulatory or method specific monitoring requirements for any of the target compounds, these compounds must be included.

6.1.2.4) 2. If there are no regulatory or method specific monitoring requirements or additional analytes required to meet the absolute number to be included in the subset, follow TNI-EL-V1M4-2009-1.7.3.2.3 requirements for LCS spiking composition and TNI-EL-V1M4- 2009-1.7.3.3.1 for MS spiking composition.

6.1.2.4) 3. As per the TNI Standard, for those test methods that have extremely long lists of analytes, a representative number may be chosen. The analytes selected must be representative of all analytes reported. The following criteria shall be used for determining the minimum number of analytes to be spiked for LCS and MS. However, the laboratory shall ensure that all targeted components are included in the spike mixture over a 2-year period. This can be applied for non-compliance samples, or other non-drinking water matrix samples.

- For methods that include 1-10 targets, spike all components;
- For methods that include 11-20 targets, spike at least 10 or 80%, whichever is greater;
- For methods with more than 20 targets, spike at least 16 components.

6.1.2.4) 4. If neither of the above criteria apply, then the analytes must be selected for the subset so that all the different classes of compounds in the list of target compounds for the method are represented.

6.1.2.4) 5. Any unique, method-specific problem analyte or element (such as potential loss of a particular analyte during extraction, digestion, or cleanup step or an element subject to severe inter-element interference on the ICP) must be represented in the subset.

6.1.2.4) 6. In the absence of specified spiking components, for those components that interfere with an accurate assessment such as spiking simultaneously with technical chlordane, toxaphene and PCBs, the spike chosen represents the chemistries and elution patterns of the components to be reported. (TNI-EL-V1M4- 2009-1.7.3)

6.1.2.5) Sample Preparation of LCS/LFB and MS/MSD
The intent of this program is to set our control sample analytes and concentration levels such that a single concentrated stock mix is (1) independently prepared (preferably from different neat materials) from calibration stock solutions, and (2) can be used to prepare LCS samples as well as MS/MSD samples for both aqueous and non-aqueous environmental samples.

The ratio of spiked concentrate to sample aliquot used to prepare MS/MSD samples must be 1 to 10%, depending on the method specifications. In the case of matrix spikes, this practice ensures that we are not diluting the environmental sample to such an extent that we are diluting out any matrix interferences. The purpose of the matrix spike is to provide information regarding the ability to recover an analyte from a particular matrix.

6.1.2.5) 1. Stock Source of LCS/LFB and MS/MSD
In order to serve its purpose as an external verification (reference) of the calibration, it is essential that the stock solutions used to prepare LCS and matrix spike samples be prepared independently of calibration stocks unless a method specifies a contrary approach. In the organics area, there is a lack of independent sources from which reference materials are obtained but the stock solutions must be prepared independently although they may share a common source.

The source of control sample reference materials must be selected in the following order of preference:

6.1.2.5) 1.1. The neat compound must be prepared from either a completely independent sources. For example, a 1000-mg/L stock As solution obtained from Fisher is used to prepare As calibration standards, while a 1000 mg/L stock As solution obtained from Spex is used to prepare the control sample concentrate.

6.1.2.5) 1.2. If a completely independent source cannot be obtained, the same vendor may be used, but the solution shall be from a completely different lot (second lot).

6.1.2.5) 1.3. If it is impossible to obtain the reference material from two independent sources, or from two different lots, then the material from a single source can be used provided that a different analyst than the one who prepared the calibration stock is responsible for preparing the control sample solution.

6.1.2.6) Frequency of MS/MSD
MS/MSD samples are run at a frequency of one pair for every sample batch of 20 or less of a similar matrix. In cases where there is insufficient sample to run a MS/MSD as well as the original, a pair of LCS samples may be substituted to fulfill this requirement. There is often insufficient sample for aqueous samples to have a MS/MSD set up due to the large volumes of sample required for analysis. EEA encourages clients who require precision and accuracy information based on a particular matrix to make arrangements to submit adequate sample volumes for this purpose. By supplying these samples, the client is able to obtain not only specific information regarding laboratory performance (from LCS sample data), but also a measure of the applicability of the sample matrix to the analytical method used (from the matrix spike and duplicate data). If the matrix spike is used in place of the LCS, the acceptance criteria must be as stringent as the LCS [TNI-EL-V1M4-2009-1.7.3.2.3].

6.1.2.7) Frequency of LCS/LFB
Laboratory control samples are analyzed throughout a run at a frequency of 5%-10% for environmental samples of a similar matrix. Bias information is provided based on recovery data for the LCS and precision information is available by comparing LCS sample results using a RPD calculation. The frequencies are consistent with the requirements of most methods referenced in Standard Methods, EPA Manual for Chemical Analysis of Water and Waste, 40 CFR 136 for the wastewater methods, and EPA Manual for the Certification of Laboratories Analyzing Drinking Water, 5th Edition. Additional measures of precision and bias are obtained from other control samples, as specified in the SOP's.

In order to ensure that some measure of analytical control is provided with each batch of samples going through a pre-analysis preparation step, an LCS is prepared with each set of 20 samples extracted or digested for these analyses. In each case, an LCS will be associated with each set of samples prepared, to allow documentation of control of the analytical procedures. Some methods require varying concentrations of LCS throughout a run.

6.1.2.7) 1. Analyses with a preliminary treatment step (i.e. extraction or digestion):

6.1.2.7) 1.1. LCS frequency is one for every 10 to 20 samples (see individual method SOPs) or at least one for every preparation batch of ≤ 20 samples.

6.1.2.7) 1.2. MS/MSD or LCS pair (in cases where there is insufficient sample volume for a MS/MSD) is prepared for every sample batch of 20 samples or as per method specifications.

6.1.2.7) 2. Analyses not requiring pretreatment:

6.1.2.7) 2.1. A LCS must be run with each analytical run at a frequency of no less than one for every 10 or 20 samples (see individual method SOPs).

6.1.2.7) 2.2. A MS/MSD or LCS pair must be run for every batch of 20 samples as defined in method specifications or TNI standards.

6.1.2.7) 2.3. Any exceptions to this frequency on a given run must be documented on a corrective action form.

6.1.2.8) Evaluation Criteria of LCS/MS/MSD
LCS and MS acceptance criteria are compared to the acceptance criteria as published in the mandated test method if not specified in the method. Advisory limits for each method are established initially based on method validation data. Initial control limits are defined as the mean recovery (accuracy) ± 3 times the standard deviation obtained from the analysis of 4 (or more) replicates spiked at approximately 10x MRL during the method validation process.

Warning limits are set as the mean recovery (accuracy) ±2 times the standard deviation.

Firm acceptance criteria, based upon actual laboratory data, are established once a minimum of 20 data points has been generated. These historical control limits are compared to any method specified or recommended limits to assess their feasibility. Control limits are re-calculated at least yearly to verify that there has been no significant change in performance.

Precision is determined as the relative percent difference (RPD) between LCS pairs or MS/MSD samples. By linking a LCS or MS/MSD pair to each batch of 20 environmental samples, it is possible to link a measure of analytical precision (and two measures of analytical accuracy) to each environmental sample analyzed.

Precision control limits for some analytes have been adopted from the EPA CLP program where they exist, otherwise, control limits are set after the analysis of 20 MS/MSD or LCS pairs of samples (40 control samples). Control limits are set as the mean ± 3 standard deviations of the RPD from the 20-30 "pairs", with warning limits set at the mean ± 2 standard deviations. Until such time as 20-30 data points have been accumulated, interim acceptance criteria must be set as 3 times the standard deviations of the RPD obtained during the method validation process.

Whenever MS/MSD or LCS pairs do not meet these limits, an analysis may have a potential problem. Samples with failing LCS shall be reprocessed and reanalyzed or data reported with data qualifying codes. The source of any problems must be investigated and documented by preparing a corrective action or procedural variance report.

For drinking water method, when there is no method specification, the spike level must not be less than the concentration of the sample selected for fortification unless specified by the method. If the sample concentration is unknown or less than detectable, the analyst must choose an appropriate concentration. If the spike level is less than the concentration of the sample selected, the spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level.

6.1.2.9) Evaluation Criteria of LCS/LFB – Marginal Exceedances

If a large number of analytes are in the LCS, it becomes statistically likely that a few will be outside control limits. This may not indicate that the system is out of control, therefore corrective action may not be necessary. Upper and lower marginal exceedance (ME) limits can be established to determine when corrective action is necessary. A ME is defined as being beyond the LCS control limit (3 standard deviations), but within the ME limits. ME limits are between 3 and 4 standard deviations around the mean.

The number of allowable marginal exceedances is based on the number of analytes in the LCS. If more analytes exceed the LCS control limits than is allowed, or if any one analyte exceeds the ME limits, the LCS fails and corrective action is necessary. This marginal exceedance approach is relevant for methods with long lists of analytes. It will not apply to target analyte lists with fewer than 11 analytes.

The number of allowable marginal exceedances is as follows [TNI-EL-V1M4-2009-1.7.4.2]:

- >90 analytes in LCS, 5 analytes allowed in ME of the LCS control limit;
- 71 – 90 analytes in LCS, 4 analytes allowed in ME of the LCS control limit;
- 51 – 70 analytes in LCS, 3 analytes allowed in ME of the LCS control limit;
- 31 – 50 analytes in LCS, 2 analytes allowed in ME of the LCS control limit;
- 11 – 30 analytes in LCS, 1 analytes allowed in ME of the LCS control limit;
- < 11 analytes in LCS, no analytes allowed in ME of the LCS control limit.

Marginal exceedances must be random. If the same analyte exceeds the LCS control limit repeatedly, it is an indication of a systematic problem. The source of the error must be located and corrective action taken.

6.2) Sample Specific Controls

6.2.1) Internal and Surrogate Standards

Internal standards are run with GC/MS, GC, and HPLC analyses to monitor the efficiency of the analytical procedure for each sample matrix encountered and to monitor retention time shifts and the efficiency of the auto-sampler injection. Surrogate standards are run with GC/MS, GC, and HPLC analyses to monitor the efficiency of the extraction for each sample matrix encountered. When there are no established criteria for surrogates from the method, the lab determines internal limits through control charts.

Control limits are re-established annually for surrogates based on historical laboratory data from environmental sample matrices. Internal and surrogate standards are added to each sample analyzed by EPA Methods as recommended and run in accordance with the method procedures. For references to specific compounds used for internal and surrogate standards please reference the SOP.

Current surrogate acceptance limits may be found in Table 6-1.

6.2.2) Spikes – Recoveries, RPDs

Spiked sample analyses (MS/MSD) are performed to evaluate the effect of the sample matrix on the analytical methodology. A known amount of the analyte(s) of interest is added to an aliquot of sample, which is then analyzed along with the unspiked sample. Spiked samples are prepared and subjected to the same process as the original sample. Spike recoveries are calculated, and used to determine whether the sample matrix interferes with the method.

Spike recoveries are calculated as follows:

$$\%R = \frac{SSR - SR}{SA} \times 100$$

Where; %R = percent spike recovery
SSR = spiked sample result
SR = sample result
SA = spike amount added

The Laboratory documents the percent (%) recoveries and %RPD for MS/MSD samples [TNI-EL-V1M4-2009-1.7.4.3.a].

6.2.3) Duplicates, Duplicate Spikes

Duplicate analysis of a sample has traditionally been used to obtain a measure of analytical precision in the form of a relative percent difference (RPD) calculation between the two values. EEA routinely will analyze duplicate spiked control samples, MS/MSD to meet specific client's QC requirements such as Arizona.

Since no precision information is obtained when either or both of the duplicates have analyte concentrations below the MRL, duplicate analysis of the spiked samples makes the most sense. While still subject to interference problems the advantage of duplicate matrix spikes is clearly the ability to obtain calculated RPD values specific for a particular sample matrix. Clients are encouraged to submit sufficient sample for the analysis of MS/MSD samples by specific request when a RPD value for their particular matrix is desirable.

Ongoing analytical precision is evaluated by tracking the difference between the MS/MSD (or LCS pairs) analyzed with each batch of 20 samples. These differences are compared to control limits established for each analysis from historical monitoring. In the event that the method does not specify the criteria, control charts are reviewed to set laboratory internal/default QC criteria [TNI-EL-V1M4-2009-1.7.4.3.a].

For those analyses for which MS/MSD or LCS samples are not prepared, sample duplicates are analyzed to monitor performance.

$$RPD = \frac{|S-D|}{(S+D)/2} \times 100$$

where;

RPD = Relative Percent Difference
S = First Sample Value (original)
D = Second Sample Value (duplicate)

6.2.4) External Reference Samples/Quality Control Sample (QCS)

Reference samples such as those available from NIST and EPA or other EEA approved vendors are analyzed to verify the accuracy of calibration standards. Reference standards with matrices comparable to the samples being analyzed are also included in the run whenever available.

External reference samples are analyzed immediately following the calibration standards for all inorganic and organic analyses. Appropriate reference samples for organics analyses by GC and GC/MS are less readily available and are only run when a new stock standard is prepared to verify its accuracy

6.2.5) Confirmation
Confirmation is performed to verify the compound identification when positive results are detected on a sample from a location that has not been previously tested by the laboratory. Confirmations are performed on GC organic tests such as pesticides or herbicides. GC confirmation is done following method requirements or recommendations. See method SOPs for detailed discussion of the confirmation methods. Confirmation is not required when a sample is analyzed by mass spectrometer methods. All confirmation is documented in appropriate log books/work books.

6.2.6) Retention Time Windows
Absolute retention time and relative retention time aid in the identification of components in chromatographic analyses and to evaluate the effectiveness of a column to separate constituents. The laboratory ensures that it meets the method acceptance criteria for retention time windows. If the method does not specify acceptance criteria for retention time windows, the laboratory gathers a minimum of 30 data points and calculates the acceptance criteria range using 3 times the standard deviation of the average (x_{bar} ± 3sd).

6.3) DEMONSTRATION OF CAPABILITY (DOC)
6.3.1) Method Detection Limits (MDL) / Limit of Detection (LOD)
6.3.1.1) The laboratory shall utilize MDL determination by 40 CFR Part 136 as one option to provide an LOD for each analyte that is appropriate and relevant for the intended use of the data. An LOD is not required for a test method when test results are not reported outside the calibration range. LOD shall be determined by the protocol in the mandated test method or applicable regulation. If the protocol for determining LOD is not specified, the selection of the procedure must reflect instrument limitations and the intended application of the test method [TNI-EL-V1M4-2009-1.5.2.1].

6.3.1.2) The MDL shall be initially determined for the compounds of interest in each test method in a quality system matrix in which there are not target analytes nor interferences at a concentration that would impact the results of the MDL must be determined in the quality system matrix of interest [TNI-EL-V1M4-2009-1.5.2.1.d].

6.3.1.3) Method Detection Limits (MDLs) will be determined as per 40CFR, part 136, Appendix B. Essentially, this requires that an estimate of the detection limit be determined for each target analyte based on analytical experience or published references. Seven replicates of DI water must then be spiked at this estimated MDL for each method analyte carried through the entire procedure over a minimum of 3 separate analysis/extraction days. The MDL is then calculated as the standard deviation of the 7 replicates multiplied by the statistical "t-value" associated with the actual number of replicates analyzed assuming N-1 degrees of freedom (for exactly 7 replicates, the t-value is 3.143; 40 CFR, Part 136).

6.3.1.4) MDL study must be verified annually as per the EPA Manual at a minimum (or more frequently if stated in the Method such as EPA 300.0 and 353.2 where the MDL study has to be repeated every 6 months). A copy of all associated data must be submitted to the QA group for filing.

6.3.1.5)
An MDL study must be repeated for each new analyst trained in a particular method, or if there is a change in the instrumentation or the test method that is used for the analysis in question. This is a necessary requirement to ensure that each new analyst has received sufficient training such that the data generated will be comparable to that of former analysts. It is necessary to repeat the MDL process with a change in instrumentation to ensure that the new instrumentation is capable of achieving equivalent sensitivity. For instrument MDLs, shared MDLs for analysts who have already done the MDL can be used for instrument MDL. An MDL study must also be repeated when there is any significant change in background or instrument response.

6.3.1.6) A minimum of a three-point calibration will be performed prior to the MDL study. One of the points must be at the MDL spike level. The calibration must meet all criteria outlined in the Calibration Policy.

6.3.1.7) The spiked level must be within 10 times the calculated MDL or the process must be repeated at a lower spike concentration. The spike level must be greater than the calculated level.

6.3.1.8) If there is a significant blank level, the spike level for the MDL determination must be at least three times greater than the blank concentration.

6.3.2) Minimum Reporting Limits (MRL) / Limits of Quantification (LOQ)
6.3.2.1) The Minimum Reporting Limit (MRL) is the lowest concentration normally reported to the client. It represents the reporting value linked to a specific analyte for aqueous matrix in the LIMS system. The MRL

represents a conservative, nominal reporting limit designed to be representative of the minimum quantifiable concentration level for a particular analyte in a real environmental matrix as opposed to the statistically derived MDL calculation.

6.3.2.2) The MRL will generally be established by multiplying the statistically derived MDL by a factor of 2 or 3. The rationale for this approach is that the resultant value becomes approximately 10 times the standard deviation obtained during the MDL study; the EPA frequently refers to this concentration as the "Limit of Quantification (LOQ)", and defines it as the level above which accurate quantitation can be achieved. This level is also more similar to the SW-846 and SDWA concept of "Practical Quantitation Limits" (PQL). At a minimum, the MRL needs to be greater than or equal to the MDL.

6.3.2.3) Perform an MRL check and calculate the acceptance criteria for recovery of spiked analyte at MRL is 50-150 % or ± 3 standard deviations, whichever is greater if the method does not specify acceptance limits. MRL Check is run daily as per EPA Manual for the Certification of Laboratories Analyzing Drinking Water, 5th Edition.

6.3.2.4) Final MRLs must only be established after receiving input from the Group Technical Manager, Client Services Manager, Lab Director and Quality Manager. This ensures that all relevant issues regarding the selection of MRLs have been considered. These issues include specific minimum reporting limits required by a particular state or regulatory body, contractually required reporting limits for a specific client, the need to provide consistent reporting limits for our clients that have historically submitted samples associated with long-term monitoring efforts, as well as to remain competitive in the market. Thus a specific client may require that we use an MDL on our reports rather than an MRL. This deviation must be documented on client reports. A “J” flag is used to qualify results greater than MDL, but less than MRL (>MDL, <MRL). A "U" flag is used to qualify results not detected at the MDL.

6.3.3) Initial Demonstration of Capability(IDC)

6.3.3.1) An IDC is performed for each analyst and instrument. The IDC for each analyst includes a demonstration of the ability to achieve a low background, the precision and accuracy required by the method, the method detection limit (MDL) in accordance with procedure in 40 CFR 136, Appendix B and satisfactory performance on an unknown sample as on-going proficiency test result are also filed.

6.3.3.2) The IDC is repeated when there is a change in analyst, test method or instrument.

6.3.3.4) Initial demonstration of method performance is completed each time there is a significant change in instrument type, personnel, or test method.

6.3.3.5) Continuing demonstration of method performance (such as laboratory control and matrix spike samples) is monitored by use of control charts.

6.3.3.6) The QC sample used for the IDC analysis is obtained from an outside source. If an external vendor is not available, the laboratory prepares the QC sample independent of the instrument calibration standard.

6.3.3.7) The QC sample concentration prepared for the IDC is approximately 1-4 times the MRL for spike concentration if not specified by the method or regulations. Four aliquots of the sample are analyzed concurrently (same day) or over a period of days. Average recovery and standard deviation for each parameter of interest are calculated in the units used for reporting to clients. The resulting average recovery and standard deviation must meet the acceptance criteria for the method.

6.3.3.8) When it is not possible to determine mean and standard deviations, such as for presence/absence and logarithmic values, the laboratory assesses performance against established and documented criteria. If there is no mandatory criteria in the method, either reference or laboratory generated limits are used.

6.3.3.9) If standards cannot be prepared, as for Microbiology, QC samples or PE samples obtained from NIST or other approved PT providers are used for the IDC. The laboratory retains all associated supporting data necessary to reproduce analytical results summarized in the IDC certification statement. The Microbiology DOC SOP provides the details of the DOC procedure.

6.3.3.10) Analysis of actual samples is not done until all parameters of interest for the IDC meet acceptance

criteria. If one or more of the test parameters do not meet the acceptance criteria, the problem is corrected, followed by repeated analysis of the four aliquots for those that failed to meet criteria. If the repeat analyses fail acceptance criteria the laboratory investigates, corrects the problem and repeats the test for all parameters.

6.4) METHOD SPECIFIC QUALITY CONTROL

6.4.1) Gravimetric

6.4.1.1) All laboratory analytical balances and thermometers of ovens are calibrated annually with Class S weights and a certified thermometer. Records of this balance calibration are maintained by the balances and periodically turned in to the QA Officer for filing as records are completed. Balances are verified on each day of use.

6.4.1.2) A sufficient number of dessicators are maintained to insure that samples are not crowded to the point where they cannot cool to room temperature at the end of the specified drying period. Desiccant replacement is based on color changes.

6.4.1.3) LCS samples are analyzed at a frequency of 5 or 10% and are specified in each method SOP. At least one LCS is analyzed for each analytical run.

6.4.1.4) MS/MSD samples (or LCS pairs) are analyzed at the rate of once every batch of 20 samples of a similar matrix, or at other frequency, depending on the method requirements.

6.4.2) Titration

6.4.2.1) Use of an automated titrator set to proper delivery speed insures that every sample is titrated to the same endpoint. For manual titration, selection of the proper endpoint is achieved by comparing the color of the sample currently being titrated with the color of the previously titrated sample. The analyst must be particularly careful when performing a titration with a fading endpoint. In such instances, it is important to complete the titration as rapidly as possible.

6.4.2.2) An external reference sample is analyzed with each new set of standards or titrant to verify the accuracy of the titrant standardization and the endpoint determination. In addition, the endpoint pH is checked for each sample.

6.4.2.3) LCS samples are analyzed at a frequency of 5 or 10% and are specified in each method SOP. At least one LCS is analyzed for each analytical run.

6.4.2.4) MS/MSD samples (or LCS pairs) are analyzed at the rate of once every batch of 20 samples of a similar matrix, or at other frequency, depending on the method requirements.

6.4.3) Colorimetric Spectrophotometry

6.4.3.1) The alignment of the cell holder and light source is checked when absorbancy indicates a problem.

6.4.3.2) A minimum of three standards plus a blank, equally spaced over the concentration range, are used to calibrate the spectrophotometer in the absorbance mode, except where methods specify the use of one standard only.

6.4.3.3) The analyst records the absorbance reading for the top standard and notes on the form if a gradual increase or decrease in the absorbance of this standard is occurring. A gradual decrease in absorbance values from week to week is usually indicative of a deteriorating standard or the initial stage of lamp failure.

6.4.3.4) The rate of color development and color stability of spectrophotometric procedures varies considerably. The allowable time interval for reading the absorbance of the sample is specified in the method and must be rigidly adhered to in order to obtain accurate results.

6.4.3.5) Measuring a blank and a calibration standard after every twenty samples checks the stability of the spectrophotometer. If the baseline absorbance or the standard absorbance value has changed by more than 0.005 absorbance units or 10% from the initial calibration standard, whichever is greater, the instrument must be recalibrated and all samples analyzed since the last acceptable calibration check must be reanalyzed.

6.4.3.6) Some water samples have a natural color or turbidity which absorbs appreciably at the wavelength used in the analysis. If the sensitivity of a procedure is sufficiently high, it is usually possible to minimize this interference by diluting the sample. If the sensitivity is not adequate to permit sample dilution, the turbidity or color interference is corrected for, by reading the absorbance of the sample carried through the procedure without addition of the indicator reagent when instrumentation permits it. This absorbance reading is then subtracted as a

blank from the absorbance reading of the sample.

6.4.3.7) LCS samples are analyzed at a frequency of 5 or 10% and are specified in each method SOP. At least one LCS is analyzed for each analytical run.

6.4.3.8) MS/MSD samples (or LCS pairs) are analyzed at the rate of once every batch of 20 samples of a similar matrix, or at other frequency, depending on the method requirements.

6.4.4) ICP Emission Spectroscopy & ICPMS

6.4.4.1) The sensitivity of each element is recorded in order to detect deficiencies in the instrument or operating conditions.

6.4.4.2) Reagent blanks followed by a calibration check standard are run for each metal determined with a frequency of 10%. If there is a difference of >10% from the initial standard reading, the instrument must be recalibrated and all samples that were analyzed after the last acceptable calibration check must be reanalyzed.

6.4.4.3) For ICP analysis using the simultaneous system, inter-element correction factors must be available for each wavelength used. Background correction must be used for each element.

6.4.4.4) LCS samples are analyzed at a frequency of 5 or 10% as specified in each method SOP. At least one LCS is analyzed for each analytical run.

6.4.4.5) MS/MSD samples (or LCS pairs) are analyzed at the rate of once every batch of 20 samples of a similar matrix, or at other frequency, depending on the method requirements.

6.4.5) Radiochemistry

6.4.5.1) The laboratory participates in performance studies for gross alpha and beta, Uranium and radium. Results must be within the control limits established by the vendor for each analysis.

6.4.5.2) The laboratory monitors monthly radiation measurement of laboratory instrumentation for radioactive contamination [TNI-EL-V1M6-2009-1.7.1.d]. The procedure is discussed in the CHP Manual including criteria and corrective action procedure.

6.4.5.3) Efficiency curves are run at least annually and the data recorded in the radiation notebook.

6.4.5.4) A background is run monthly for gas proportional counter, and each day of use for scintillation counter) and a known reference sample is run with each batch of radiation samples analyzed. Background check measurements shall be performed at least weekly for gas proportional counter [TNI-EL-V1M6-2009-1.7.1.c.iii]. EEA performs background check measurements each day of use for gas proportional counter. Method blank shall be performed at a frequency of at least one per preparation batch. If the acceptance criteria specified in the SOP are not met, the specified corrective action and contingencies shall be followed and the result reported with appropriate data qualifying codes [TNI-EL-V1M6- 2009-1.7.3.1.c].

6.4.5.5) LCS samples are analyzed at a frequency of 5 or 10% and are specified in each method SOP. At least one LCS is analyzed for each analytical run. The activity of LCS shall be at least10 times the Minimum Detectable Activity (MDA) or at a level comparable to that of the routine samples if the sample activities are expected to exceed 10 times the detection limit [TNI-EL-V1M6-2009-1.7.2.2.e].

6.4.5.6) Gross alpha and gross beta require MS for aqueous samples. When there is not sufficient sample aliquot size to perform a matrix spike, it shall be noted on the lab report [TNI-EL-V1M6-2009-1.7.2.3.a.iv]. The activity of the matrix spike analytes shall be greater than five times the MDA [TNI-EL-V1M6-2009-1.7.2.3.a.v].

6.4.5.7) The laboratory standards used to prepare LCS and MS shall be from a source independent of the laboratory standards used for instrument calibration [TNI-EL-V1M6-2009-1.7.2.2.f]. The MS shall be prepared by adding a known activity of target analyte.

6.4.5.8) Replicate shall be performed at a frequency of one per preparation batch where there is sufficient sample to do so. The replicate result shall be assessed against the specific acceptance criteria specified in the laboratory SOP. For low level samples (less than approximately three times the MDA) the laboratory may analyze duplicate laboratory control samples or a replicate matrix spike (matrix spike and a matrix spike duplicate) to determine reproducibility within a preparation batch [TNI-V1M6- 2009-1.7.2.3.b.iv].

6.4.5.9) Consistent test conditions for RAD testing are maintained through a radiological control program that addresses analytical radiological control (See EEA's Radiation Safety Program Manual). The program shall address

the procedures for segregating samples with potentially widely varying levels of radioactivity. The radiological control program shall explicitly define how low level and high level samples will be identified, segregated and processed in order to prevent sample cross-contamination. The radiological control program shall include the measures taken to monitor and evaluate background activity or contamination on an ongoing basis [TNI-EL-V1M6-2009-1.7.2.7.c].

6.4.6) Gas Chromatography

6.4.6.1) A laboratory water blank is analyzed for all analyses to check for artifacts from the GC system and for the presence of impurities in the water blank making it unsuitable for LCS preparation.

6.4.6.2) A field or travel blank must be analyzed for each set of field samples taken. With each set of travel blanks sent out, a stationary travel blank is kept in the laboratory for analysis to demonstrate that the water sent out was free of contamination.

6.4.6.3) A series of continuing calibration standards are run with the analysis each day for all GC analyses.

6.4.6.4) LCS and/or MS/MSD samples for assessing precision and accuracy are determined by carrying the control samples or spike and spike duplicates through the extraction procedure as well as the instrumental analysis.

6.4.6.5) LCS samples are analyzed at a frequency of 5 or 10% and are specified in each method SOP. At least one LCS is analyzed for each analytical run.

6.4.6.6) MS/MSD samples (or LCS pairs) are analyzed at the rate of once every batch of 20 samples of a similar matrix.

6.4.7) Gas Chromatography/Mass Spectrometry

6.4.7.1) GC/MS Tuning Specifications

The mass spectrometer must be shown to be properly tuned during each daily 12 hour shift. This insures that the masses and abundance's, which the data system determines, are accurate. The EPA has suggested criteria for tuning the GC/MS with two standard compounds, decafluorotriphenylphosphine (DFTPP) and 1-bromo-4-fluorobenzene (BFB). Tuning criteria are shown in Table 11-3.

The following settings are maintained:

- Emission Current: 0.5 ma
- Electron Energy: 70 ev
- Electron Multiplier: 1000-2000 volts as required for sensitivity
- Dynodes: 3000 V

For HPLC and LCMS tuning, please consult the appropriate Standard Operating Procedure for the method in question

6.4.7.2) Quantitation of Identified Compounds/Quantitation from Initial Instrument Calibration

The calibration procedure for GCMS is based on the EPA Methods Reference, for example 524.2, 525.2, 624, and 625. A minimum five point standard curve is run for all analytes. For each calibration compound a response factor (Rf) and the %RSD are calculated.

The procedure to be employed for evaluation of the acceptability of the initial calibration curve based on the EPA Methods Reference, see individual SOPs for specific examples.

All quantitation are done from initial instrument calibration and not from continuing calibration unless required by the method, regulation or program [TNI-EL-V1M4- 2009-1.7.1.1.c].

6.4.7.3) Internal and Surrogate Standards (IS and SS)

The internal standard area counts are recorded for all volatile and semi-volatile samples.

If any sample is found to have an IS beyond ± 50% based on ICAL (± 30% for CCV) of the IS counts for the daily continuing calibration standard, the sample is re- analyzed unless an obvious matrix problem can be documented.

Surrogate standards are utilized in both the volatile and semi-volatile analysis.

Any volatile sample surrogate recovery that falls outside of the lab limits is immediately re-analyzed. If surrogate recoveries are still outside of the limits, a QIR is written and the report is annotated. If the second result is within the control limits, this result is reported.

For semi-volatile samples with unacceptable surrogate recoveries, the extraction run logs are examined for matrix related or other documented problems. In addition, the LCS recoveries are reviewed for the sample extraction set. If none of these indicate a matrix problem, the sample is re-extracted if still within holding times. If the analysis of the re-extract shows unacceptable surrogate recoveries, a QIR form is generated, then the sample report is annotated and the data reported.

6.4.7.4) Criteria for Tentatively Identified Compounds (TIC's)
A primary advantage of GC/MS is the ability to identify compounds for which the retention time and mass spectra are not well known to the operator. This is accomplished by performing a library search using the EPA/NIST library of mass spectra and comparing unknown to these spectra. The library search program gives five or ten of the "best fits". The best fits are determined by comparing the top eight mass fragments in the unknown to the spectra in the library. The program matches the mass numbers and the abundances at each mass number to those in the library. The program lists the possible identifications along with the numbers, which can be used by the MS operator to determine the quality of the identification. The fit is the degree to which the peaks and intensities in the unknown match those of a particular compound in the library. A perfect match would be 1000 or 1.000, depending on the software. EEA utilizes CLP criteria and method specifications for determining identification of unknowns. This includes the presence of all major ions greater than 10% relative intensity, agreement of ± 20% for major ions in the sample and reference spectra, and the review of all ions present in the sample spectrum for possible background contamination or interference.

In general a computer fit of 850 or 0.850 must be the minimum used for identification. It must be noted that even with computer library searches, there is no substitute for the judgment of a trained analyst.

6.4.7.5) Control Samples
LCS samples are analyzed at a frequency of 5%. At least one LCS is analyzed for each analytical run.

MS/MSD samples (or Duplicate) are analyzed at the rate of once every batch of 20 samples of a similar matrix, as required by TNI. Duplicates are usable only when target analytes are positives.

6.4.7.6) Blanks
Laboratory reagent water blank is normally the first sample analyzed at the beginning of each working day to demonstrate that the system is free from contamination. If the blank result indicates contamination, the system is cleaned by running additional water blanks or if necessary, finding an alternate source of contaminant free water.

6.4.8) Total Organic Carbon (TOC)
6.4.8.1) Samples are diluted to fall within the linear range of the standards.

6.4.8.2) Every tenth sample is an LCS and %recoveries must fall within acceptable control limits. MS/MSD samples (or LCS pairs) are analyzed at the rate of once every batch of 20 samples of a similar matrix as per method requirements.

6.4.9) Total Organic Halogen (TOX)
6.4.9.1) Three carbon blanks (carbon packed adsorption columns washed with nitrate-wash solution only) are analyzed at the beginning of each workday. All values must be within 20% of the average blank value obtained before standards can be run.

6.4.9.2) Each day, a set of three calibration standards is analyzed prior to analysis of samples. Calculated values for the standards must fall within 5% of the nominal value except for the 1.0 standard, which is allowed a 10% range.

6.4.9.3) Every eighth sample is, alternately, a continuing calibration standard or a carbon blank.

6.4.9.4) All samples are analyzed in duplicate. If the net values of the duplicates are not within acceptance criteria of 20%, a third and possibly a fourth replicate is analyzed. Results are compared to the first and second replicate and the average of the two closest samples is reported.

6.4.9.5) The titration cell is revitalized by rinsing with fresh cell solution after every twenty analyses or sooner if necessary.

6.4.9.6) Samples are diluted to fall within the linear range of the standards.

6.4.9.7) Two or three serial adsorption columns from each sample adsorption are analyzed separately to determine if any organic halogen breakthrough is occurring. In the event of breakthrough, an additional diluted sample is analyzed. Every tenth sample is an LCS and %recoveries must fall within acceptable control limits.

6.4.9.8) MS/MSD samples (or LCS pairs) are analyzed at the rate of once every batch of 20 samples of a similar matrix.

6.4.9.9) The purity and adsorption capacity of each new batch of carbon purchased is assessed by duplicate analysis of an adsorption efficiency standard. This adsorption efficiency standard (standards injected into reagent water then filtered) must be within 5% of the standard value. In addition, duplicate carbon blank results must be less than 1 µg Cl-.

6.4.10) General Microbiology - Use of Commercial Dehydrated Powder for Coliform Testing
6.4.10.1) The individual collecting samples must be aware of the sampling precautions outlined in Standard Methods.

6.4.10.2) Specific sampling instructions are available from the EEA Microbiology Department. They list required precautions to follow to maintain the integrity of the samples and prevent contamination.

6.4.10.3) The maximum holding time for microbiological samples is 30 hours for drinking water and 8 hours for water/wastewater, and 8 hours for source water.

6.4.10.4) The bottles must be shipped sealed in strong plastic zip lock or bubble bags. This keeps the melting ice from contaminating the samples. Ice cubes or their equivalent must be placed around the samples but care must be taken that the samples do not freeze.

6.4.10.5) Sterility check on sample containers shall be performed on at least one container for each lot of purchased pre-sterilized sample containers. For containers prepared and sterilized in the lab, a sterility check shall be performed on one container per sterilized batch with non-selective growth media [TNI-EL-V1M5-2009-1.7.3.1.b.iii]. Microbiology sample containers are disposable high clarity polystyrene vessels with sodium thiosulfate sufficient to neutralize at minimum 5 mg/L of chlorine for drinking water and 15 mg/L of chlorine for wastewater samples. Containers from each lot of "ready to use" are tested to ensure efficacy of Na2S2O3 to 5 mg/L Cl2 for drinking water and 15 mg/L Cl2 for wastewater. Thus, samples received in the lab are not tested for additional residual Cl2 testing [TNI-EL-V1M5-2009-1.7.5.b]. When the residual chlorine concentration is checked in the field, the result is documented in the COC.

6.4.10.6) A sterilization indicator is used during each autoclave cycle. If problems exist as indicated by a failure of the sterilization indicator, none of the items from that autoclave load is used and the group leader is notified. Demonstration of effective sterilization is provided by the use of biological indicators at least once per month of use [TNI-EL-V1M5-2009-1.7.3.7.b.ii].

6.4.10.7) Culture media are prepared from commercial dehydrated powders or ready to use media such as colilert medium. The laboratory does not prepare media or its culture media from basic ingredients. [TNI-EL-V1M5-2009-1.7.3.5.a]

6.4.10.8) Only DI water is used for the preparation of media. Once opened, the powdered media is tightly recapped to prevent hydration.

6.4.10.9) Prepared liquid medium is stored in the dark at refrigeration of 1°C to 5°C and used within 3 months. The media is labeled with the type of medium, date prepared and the initials of the analyst who weighed out the dehydrated powder.

6.4.10.10) Prepared agar plates are stored in plastic bags, agar up, in the refrigerator. The bag is labeled to identify the type of medium, date prepared and the initials of the analyst who prepared it.

6.4.10.11) When bacteriological samples are incubated in a water bath or incubator, the temperature is recorded each morning and afternoon on the appropriate temperature sheet.

6.4.10.12) A thermometer calibrated at 44.5°C is used for the water bath when fecal coliforms are incubated.

6.4.10.13) A positive control culture obtained from the American Type Culture Collection is inoculated for each batch of media including chromofluorogenic medium, incubated and read to indicate the acceptability of a media to a particular bacteria type. A negative control consisting of an inoculation of sterile phosphate buffer or an un-

inoculated portion of media is also incubated to demonstrate the absence of contamination prior to first use of the medium.

6.4.10.14) When membrane filtration methods are used to analyze samples, a control blank of sterile dilution water is analyzed at the beginning of each set of samples. For membrane filter or plate media, duplicate counts shall be performed monthly on one positive sample for each month that the test is performed. If more than one analyst, each analyst shall count typical colonies on the same plate and count must be within 10%. If only one analyst, sample plate shall be counted twice by the analyst, with <5% difference between counts.

6.4.10.15) The laboratory analyzes a bacteriological proficiency test sample from ERA semi-annually for NELAP accreditation. The coliform test, standard plate count, is conducted on this reference sample.

6.4.10.16) A completed test is conducted on 10% of all positive coliform samples for wastewater matrix. If no positives are found, at least one positive source water or control sample is completed quarterly.

6.4.10.17) Environmental monitoring is conducted weekly using PCA plates to measure background contamination occurring from bacteria, yeast and mold carried in the air. The number of colonies on the air density plate must not exceed 15 colonies/plate/15 minutes of exposure.

6.4.10.18) For NELAP Microbiology compliance samples only: Microbiological samples from known chlorinated sources (such as wastewater effluent), unknown sources where chlorine usage is suspected (such a new client or a new source) and all potable water sources (including source water) shall be checked for absence of chlorine residual. EEA checks a sample from each source (including source water) that have a demonstrated history of acceptable preservation at a frequency of once per month if: a) EEA can show that the received sample containers are from EEA; b) sufficient sodium thiosulfate was in each container before sample collection to neutralize at minimum 5 mg/l of chlorine for drinking water and 15 mg/l of chlorine for wastewater samples; c) one container from each batch of laboratory prepared containers or lot of purchased ready-to-use containers is checked to ensure efficacy of the sodium thiosulfate to 5 mg/l chlorine or 15 mg/l chlorine as appropriate and the check is documented; d) chlorine residual is checked in the field and actual concentration is documented with sample submission.

6.4.11) Asbestos

6.4.11.1) The sampling technique follows the methods outlined by EPA in Method 100.2- Analytical Method for Determining Asbestos Fibers in Water EPA-600/R-94/134, June 1994. All samples are to be stored at 4°C until filtration and completion of analysis.

6.4.11.2) Specific sampling instructions are available from the Microbiology Department. They list precautions to follow in order to maintain the integrity of the samples and prevent contamination.

6.4.11.3) The procedure is outlined in the Method 100.2. All modifications of procedures including reasons for modifications are recorded in the SOP.

6.4.11.4) All counts for calculations and report generation are entered into LIMS to eliminate inconsistency in the final report.

6.4.11.5) The manufacturers' manuals for proper operation of all equipment used in asbestos analyses are properly filed and accessible. Records of periodic inspection, calibration and service of equipment are maintained in appropriate logbooks. Phone numbers for instrument service are posted by each instrument.

6.4.11.6) Blank using fiber-free water is processed each day that samples are filtered as stated in Method 100.2. The criterion for acceptability of bottle and process blanks is < 0.01 MFL > 10 microns in length. If this limit is exceeded, the samples filtered on the same day as the blank must be re-filtered.

6.4.11.7) All samples are filtered within 48 hours of sample collection. Samples received past 48 hours of collection are treated with O3 –UV.

6.4.11.8) The absolute (HEPA) filtration system is monitored daily and filters are changed when needed.

6.4.11.9) Asbestos glassware is prepared using sonication as stated in the method.

7) SAMPLE COLLECTION, PRESERVATION, IDENTIFICATION, HANDLING, AND STORAGE

Sample collection and sample handling techniques are important aspects of the overall sample analysis process and have a major impact on the validity of the results. Specific containers and preservatives are used to ensure that the analytes originally present in the sample are not lost through degradation or do not become more concentrated.

In addition, contaminants that would interfere with the analysis or give erroneously high results must be mitigated.

The laboratory provides sampling instructions to all clients to guide clients on the appropriate sample collection procedures. If a client chooses to collect their own samples, experienced lab staff can brief clients by telephone or in writing through EEA's sampling collection instruction on the proper methods of sample collection. If a client chooses to hire the laboratory to do the sampling, the sampling will be done by trained sampling personnel.

7.1) SAMPLE COLLECTION AND BOTTLE PREPARATION

Production of quality analytical data requires that the collected sample is representative of the sampled area. Sampling procedures must adhere to the guidelines established by EPA and other regulatory agencies and be appropriate for the sample matrix and types of analytical parameters to be determined.

The laboratory provides sampling instructions to all clients to guide clients on the appropriate sample collection procedures. If a client chooses to collect their own samples, experienced lab staff can brief clients by telephone or in writing through our sampling collection instruction on the proper methods of sample collection. If a client chooses to hire the laboratory to do the sampling, the sampling will be done by a trained sampling personnel.

Sample bottles for all analyses except bacteriological are purchased pre-cleaned according to EPA Protocol specifications from various vendors. Certification statements for each lot of bottles are kept on file in the shipping department and each bottle is marked with its lot number. Each new lot of bottles used for volatiles analyses are checked for volatiles and trace metals contamination. All files regarding Bottle Testing are kept in the QA Files. Glass bottles are wrapped in bubble bags to prevent breakage and normally shipped to the sampling site in coolers with gel packs for chilling samples. A copy of the original kit order is included with each shipment and must be returned with properly cooled samples to the laboratory along with a properly completed chain of custody form (COC). The kit order specifies the numbers of bottles sent for each analysis and is used during the log in procedure in the laboratory.

7.2) CONTAINERS, PRESERVATIVES, HOLDING TIMES AND SAMPLE KITS

EEA supplies the appropriate sample containers, preservatives, chain-of-custody forms, coolers, and packing materials to a client upon request. The container types, bottle sizes, preservatives, container closures, and recommended holding times are shown in Table 7-1 for Drinking Water, Table 7-2 for Wastewater, and Table 7-3 for Hazardous Waste. These specifications follow CFR 136-149, Required Containers, Preservation Technique and Holding times July 1, 2016 edition and updates. Also followed is the Manual for the Certification of Laboratories Analyzing Drinking Water, Fifth Edition. Arrangements for sample kits may be made through the Client Services department. Preservatives are shipped to clients only in the specified container; bulk preservatives are not normally shipped. Only reagent grade (or better) preservatives are used. The chemicals used as preservatives are as follows:

Ascorbic Acid	Nitric acid	Sodium sulfite
Ammonium chloride	Potassium Citrate	Trizma Buffers
Copper Sulfate	Sodium hydroxide	Zinc acetate
Ethylenediamine	Sodium thiosulfate	Sodium azide
Hydrochloric acid	Sulfuric acid	Maleic Acid

Containers are delivered to the client by the following methods:

(1) Client comes to laboratory to take sample kit,
(2) Containers are sent to client by courier,
(3) Containers are shipped (via UPS/FedEx/DHL) in coolers meeting all DOT regulations.

To ensure that samples meet the temperature requirements, the laboratory checks and records the sample temperature upon receipt on the COC. The temperature check documents that the samples are kept cold (>1ºC, ≤6ºC), not frozen, during transport. Samples that arrive on the same day of collection and have not reached <6ºC must have evidence of cooling to be acceptable. For Surface Water Treatment Rule (SWTR) bacterial samples and coliphage samples, sample receipt temperature must be <10ºC and samples that arrive on the same day of collection that have not reached 10ºC, with evidence of cooling, must be received within 2 hours of sampling to be acceptable.

7.3) SAMPLE STORAGE

7.3.1) Under normal circumstances storage is maintained in a refrigerator kept at 4 ± 2ºC for one month from receipt [TNI-EL-V1M2-2009-5.8.9.a.i]. All samples are normally retained for at least 2 months after sample receipt or until holding times have expired, whichever is shorter. A different storage period can be arranged at the request of the client. All samples are kept in the proper storage environment for one month from receipt and then stored in

the waste storage area until disposal.

7.3.2) Samples are kept in refrigerators or if storage at ambient temperature is permitted, on shelving in the designated area. Samples in the designated areas are available for the analyst to take as necessary. Documentation that these samples have been taken is available in the run log. The analyst uses their run log (Figure 8-7) as a means of tracking their samples.

7.3.3) Samples designated for volatile analysis are not kept in the same refrigerators as samples designated for non-volatile analysis.

7.3.4)
Temperature in the cold storage areas is monitored twice a day at least 4 hours apart (except on weekends) to ensure all samples meet storage temperature requirements. The three personnel in Sample Disposal are covering the temperature reading for most of the refrigerators in the lab on the week days (Monday to Friday). On Saturdays, since there is only one receiving personnel and no Sample Disposal personnel, all the refrigerators are checked once to have a documentation that the system is working. Storage temperatures are recorded in appropriate logbooks [TNI-EL-V1M2-2009-5.9.3.a.viii].

7.4) SAMPLE DISPOSAL

7.4.1) All laboratory wastes including excess samples, excess calibration standards, any excess test items, digestates, leachates, extracts or other sample preparation products are identified by their composition. Six waste streams are identified in the laboratory; extraction solvent, Methylene chloride wastewater, chloroform, Freon, rapid flow analyzer, corrosive acids and bases, HPLC, and flammable. Each type of waste is placed into a separate, clearly identified steel drum located in a secure area outside the laboratory. Each drum also has a characterization sheet (manifest) attached. This sheet is completed every time a waste is introduced into the drum. Drums are taken for disposal/recycling once the drum is 75 % full or every 90 days from the start date of accumulation.

7.4.2) A large majority of samples received by EEA are raw or potable waters. Residual samples, if not extracted, are disposed of by neutralizing with sodium hydroxide (NaOH) or nitric acid (HNO_3). The type and amount of waste is recorded in a logbook.

7.4.3) A continuous pH meter is attached to the effluent outfall into the city sewer to record pH of all outgoing fluids from the laboratory.

7.4.4) Hazardous waste is disposed of in 55 gallon drums. Characterization sheet is available for each type of waste or waste profile.

7.4.5) Sample disposal procedures details are available in the disposal area and available through our SOP titled, "Hazardous Waste Management and Sample Disposal Procedures". The SOP describes the requirements for the safe and effective disposal of all sample, extract and digestate waste contained in the laboratory. Means of disposal include dispensing into manifested 55 gallon drums.

7.4.6) All samples that are considered to be potentially hazardous based upon analytical results or matrix will be disposed of through a hazardous waste disposal company or a client may request that the samples be returned to them for disposal. All disposal arrangements must be made with an Analytical Services Manager. All samples are disposed of in accordance to RCRA and county regulations.

8) SAMPLE MANAGEMENT

8.1) SAMPLE RECEIPT AND LOG-IN/SAMPLE RECEIPT PROTOCOL

EEA receives all samples through its sample control group. Upon receipt of samples, the sample control group inspects each sample for breakage or leakage, inverted septa, inappropriate caps or bottles, air bubbles in volatile organics samples, incomplete sample labels, incomplete paperwork, or discrepancies between the sample labels and the paperwork. The sample custodian checks the sample temperature to ensure that the required temperature is maintained during transport. EPA requires for most methods that a sample temperature of 4 ± 2ºC (TNI > 0, ≤ 6ºC) shall be maintained during transport. The sample custodian records the sample temperature on the Chain of Custody. If the reading is above 6ºC, the Analytical Services Manager is notified who then notifies the client regarding his sample condition. For samples that arrive at the laboratory > 6ºC, the client will be notified that the affected samples are unacceptable for regulatory compliance purposes, if not received on the same day of collection with evidence of cooling, and analysis is at the discretion of the client. (Acceptance criteria as per MUR, March 12, 2007 is ≤ 6ºC).

For surface water Microbiology and LT2 E. coli samples, samples that arrive on the same day of collection and have not reached 10ºC, with evidence of cooling, must be received within 2 hours of sampling to be acceptable.

The sample custodian also screens all hazardous waste and wastewater samples from a new client with the Geiger Counter meter for presence of radiation levels above background. For additional details refer to Sample Receiving and Log-In SOP. Any sample receipt problems are recorded either on the Chain of Custody (COC) Form (Figure 8-6) for Level I or on COC and Sample Cooler Receipt Form (Figure 8-1) for Level II samples. The Client Services Manager or designated Analytical Services Manager is notified about the problems. The client is informed of these problems, the appropriate course of action is determined and a decision is made immediately whether re-sampling is required.

Sample control employees are designated to receive all shipments and deliveries to the laboratory. The procedure for receiving samples is detailed in the Sample Receipt SOP kept on file in the log-in area and central QA files. A EEA Kit Order Form (KO) is filled out for each client's samples. An example of the KO is shown in Figure 8-2. A computer assigned laboratory number is placed on each sample bottle and the bottles are stored in refrigerators segregated by receipt date.

8.1.1) Sample Labeling System

Sample bottles must be clearly labeled so that the laboratory tracking system can function optimally. All sample bottles are shipped with labels containing the particular parameters to be tested from each bottle as well as any preservative information. The client must fill in the sampling date and sample site, and the client name/identification (if not pre-populated), on the label. The sample control group insures that all returned samples contain sample site identifications.

After log-in, the sample control group attaches a label with the laboratory sample tracking number to each sample bottle. All sample bottles collected for a particular sample site normally receive the same base laboratory sample tracking number and a stamped label with this number is attached to each bottle. When analysts run a sample work schedule for their particular analysis, they receive a computer printout listing the laboratory sample numbers requiring that analysis. The analyst must then find the samples with these assigned numbers in their appropriate containers in refrigerated or non-refrigerated storage. The work schedule printout also gives the name of the client and sample ID that is compared with the information printed on the sample label to insure a proper identification.

The assigned laboratory numbers utilized for sample tracking are always a twelve-digit number. The laboratory also assigns a unique laboratory identification number to each sample and subsample container, and attaches a durable label to each sample container. The assignment of unique laboratory ID is done for each subsample except for Microbiology samples. All laboratory ID codes assigned to each sample are documented in each appropriate logbooks/workbook for related laboratory activities such as sample preparation calibration and analysis.

Refer to the current Sample Receiving and Log-In SOP for more details.

8.1.2) Sample Receipt Acceptance Criteria:

8.1.2.1) The laboratory establishes and implements a sample acceptance/rejection policy per TNI-EL-V1M2-2009-5.8.6. The laboratory accepts a sample when the following criteria are met:

8.1.2.1) 1. Proper, full, and complete documentation, which shall include sample identification, the location, date and time of collection, collector’s name, preservation type, sample type and any special remarks concerning the sample;

8.1.2.1) 2. Proper sample labeling to include unique identification and a labeling system for the samples with requirements concerning the durability of the labels (water resistant) and the use of indelible ink;

8.1.2.1) 3. Use of appropriate sample containers;

8.1.2.1) 4. Adherence to specified holding times;

8.1.2.1) 5. Adequate sample volume. Sufficient sample volume must be available to perform the necessary tests.

8.1.2.1) 6. Procedures to be used when sample shows signs of damage or contamination.

8.1.2.1) 7. All samples, which require thermal preservation, shall be considered acceptable if the arrival temperature is ≤ 6ºC, not frozen or the method specified range. For samples with a specified temperature of 4ºC, samples with a temperature ranging from just above the freezing temperature of water to 6ºC shall be acceptable. Samples that are hand delivered to the laboratory immediately after collection may not meet these criteria. In these cases, the samples shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice. For surface water Microbiology and LT2 E. coli samples, samples that arrive on the same day

of collection and have not reached 10ºC, with evidence of cooling, must be received within 2 hours of sampling to be acceptable.

8.1.2.1) 8. The laboratory implements procedures for checking chemical preservation using readily available techniques, such as pH or free chlorine, prior to or during sample preparation or analysis [TNI-EL-V1M4-2009-1.7.5.b]. Residual Free Chlorine and pH testing are done for Volatile samples (524.2). Also samples for semivolatiles by 525.2 analysis and THMs by 551.1 are verified for proper preservation by checking the pH of the sample at the analyst's sample preparation area.

8.1.2.2) Results of all checks are recorded in the appropriate logbooks. If the sample does not meet the laboratory sample receipt acceptance criteria, the laboratory either:

8.1.2.2) 1. Retains correspondence and/or records of conversations concerning the final disposition of rejected samples; or

8.1.2.2) 2. Fully documents any decision to proceed with the analysis of samples not meeting acceptance criteria.

8.1.2.2) 2.1. The condition of these samples shall, at a minimum, be noted on the chain of custody or transmittal form and laboratory receipt documents.

8.1.2.2) 2.2. The analysis data shall be appropriately "qualified" on the final report.

8.1.2.3) After LIMS entries have been completed for a group, a sample acknowledgment is printed out (see figure 8-9). The original acknowledgment is emailed to the client immediately after log-in and reviewed by the client's Analytical Services Manager. The sample acknowledgment report allows the clients to confirm if methods and tests assigned to the samples are correct.

8.2) CHAIN OF CUSTODY

Chain of custody procedures provides legal evidence that tampering with a sample has not occurred. This is achieved by documenting an accurate written record tracing possession of the sample from collection through its final analysis and disposal. The EEA's chain of custody form provided with sample bottle shipments is presented in Figure 8-6. The laboratory maintains two levels of custody. As a standard protocol, the laboratory utilizes Level I chain of custody. Level II chain of custody is available upon request only and at an additional charge.

8.2.1) Level I

This process relies on the fact that the laboratory is a secure building. The laboratory either has custody of the sample, or not. Evidence of laboratory custody is shown through the receipt signatures on the chain of custody form. Documentation is available in the laboratory for the tracking and disposition of a sample, however this information is not intended to withstand rigorous legal scrutiny. Level I chain of custody is consistent with EPA's definition of custody. Documentation associated with this level of custody includes:

8.2.1.1) A copy of the Chain of Custody is kept in the project file.

8.2.1.2) Run logs indicating when samples were handled/analyzed.

8.2.2) Level II

Also known as Legal Chain of Custody, this process requires that the disposition of each sample be defined in terms of time and possession for the life span of the sample; from sample bottle preparation to the disposal or complete depletion of the sample during analysis. Documentation associated with this level of custody includes:

8.2.2.1) Requirements for Level I followed

8.2.2.2) Chain of custody signed by sample control personnel upon receipt of sample(s)

8.2.2.3) Airbills and/or courier receipts filed in the project file by sample control

8.2.2.4) Internal custody logbook and key to secure and separate storage refrigerators maintained by sample control personnel; all sample/extract/digestate transfers, including those to secured storage, recorded herein

8.2.2.4) 1. This storage area is locked and entry is permitted only upon signing for the custody of the sample(s)/extract(s)/digestate(s).

8.2.2.5) Internal custody logbook entries include client, client sample ID, date sampled, analyses, laboratory ID, internal dates and times transferred, initials (all samples are returned at the end of each shift) see Figure 8-4.

8.2.2.6) Upon disposal the technician will complete the custody notebook (all client identifying label(s) on the container defaced or removed)

8.2.2.7) Errors deleted by drawing a single line through the item, dating and initialing and reasons clearly indicated.

8.2.2.8) Disposal of samples occur only with the concurrence of the affected legal authority, sample data user and/or submitter of the sample

8.2.2.9) Conditions of disposal and all correspondence between all parties concerning final disposition of the physical sample recorded and retained by the laboratory

8.2.2.10) Level II chain of custody sample disposal logbook (Figure 8-5) which indicates the date of disposal, nature of disposal (such as sample depleted, sample disposed in hazardous waste facility or sample returned to client, and the name of the individual who performed the task.

8.2.3) Sub-contract Laboratories
When samples are sent to a sub-contract laboratory, a chain of custody is initiated by sample control or the subcontract administration group. The original chain of custody is filed in the project file with a reference to the second chain of custody. This sample is tracked internally and is identified as a subbed-out sample from an entry made into LIMs by sample control. All information from the original chain of custody is transferred to the second chain of custody in addition our internal Laboratory IDs are referenced. If samples were extracted at EEA and the extracts sent out, then the QC set for that extraction batch is sent out to the sub-contract laboratory also.

8.2.4) The Quality Manager or the Analytical Services Manager periodically inspects the chain of custody logbook to verify that analysts are signing samples back into custody the same day they are removed.

8.3) SAMPLE STORAGE AND DISPOSAL
Sample storage and disposal procedures are found in section 7.3 Sample Storage and 7.4 Sample Disposal.

8.4) SAMPLE TRACKING
When samples pass initial inspection, they are logged into the computer running the lab LIMS system. This system tracks samples from the time they arrive in the laboratory until final data are transmitted to the client. Multiple queries can be made of the database, and new routines can be written for retrieving certain information in a specified format. The following are example queries made from LIMS, printouts of these queries are available for personnel, on demand:

8.4.1) Sample Disposition -
Shows which analyses have been performed on a given sample, which results have been validated by the manager/supervisor, and the results.

8.4.2) Due Date/Hold time Date -
Allows analysts to schedule tests by accessing sample information according to priority date (hold time/turnaround time); query can be made per test, per group, per client, or per prompted date.

8.4.3) QC Data -
Accessibility to QC information which can be tabulated and used to derive acceptability ranges, trend analyses, control charts etc.

8.4.4) Formats -
Data is available for clients in various hard-copy layouts and/or electronic data format.

8.5) LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)
8.5.1) The current Laboratory Information Management Software (LIMS) used by EEA is the STARLIMS software package developed by STARLIMS Corporation located in Hollywood, FL. The XML web based system is written in a proprietary scripted language and accesses a Microsoft SQL server.

8.5.2) The STARLIMS system provides functions to access client accounts, tests/analyses, sample tracking, test backlog generation, data entry/verification, data validation, client data in a variety of formats, monthly financial and statistical reports, and archival storage of data.

8.5.3) The security of the information contained in the LIMS is maintained through the restricted use of the database. All personnel have a unique access ID and password. The type of information entered or queried is dependent upon the level of access associated with the user.

8.5.4) LIMS has several defined user types. Access to key areas is restricted and based on the user type designated.

8.5.4.1) Analyst/Reviewer –
Once entered, the analyst cannot change the data nor can the analyst access the data at a higher level to review. Review must be conducted by a peer or supervisor. Original data is entered by an analyst on an analytical batch basis (batch is no more than 20 samples).

8.5.4.2) Manager/Validation –
After the secondary check, the group manager validates the data. Upon validation, the data is available to the client.

8.5.4.3) User –
Personnel who only query the database, rather than enter data, are assigned this third level of access.

8.5.5) Final reports are uploaded to an external server (DMZ) for the client to access via a secure password and unique ID. Hardcopies are mailed upon request. Reports are electronically signed by the Analytical Services Manager before uploading to the DMZ. Invoices are mailed or electronically delivered based on client preference.

8.5.5.1) Report Storage –
The LIMS generates an electronic file that is uploaded to an internal server. The files are stored by client/project and file type. Version numbers are noted on the file name extensions. Reports are kept electronically for 10 years. Hardcopies are no longer printed and scanned as the STARLIMS system can electronically merge all components of a final report.

8.5.5.2) Electronic Data Deliverables (EDDs) –
Electronic data or magnetic medium data are delivered to the client using e-mail or by the client accessing the DMZ via a unique ID and password. The LIMS generates the final data report and merges this with the Chain of Custody, Acknowledgement sheet, subcontract report, case narrative, and any explanations regarding the visual sample condition into one file for the client to access.

8.5.5.3) LIMS Maintenance –
The LIMS hardware is maintained by the IT Department of EEA and the Systems Architect/IT Manager on-site at the laboratory. The software is maintained by STARLIMS and upgrades are provided by the vendor for a yearly fee. Software validation is performed by the vendor prior to installation of the product.

A hardware/software maintenance logbook is kept with the manager of computer services. In addition to this record, all servicing performed by STARLIMS or outside vendors is documented by their staff and is available for our use.

8.5.6) Sample Status
Samples are logged into the system upon receipt in the laboratory. A laboratory number is assigned to each sample by the computer and the required tests are scheduled. Each sample then appears on the work schedule for the appropriate department. Turnaround time is automatically assigned to each sample test based on the sampling date and time and EPA holding times.

The work schedule is the primary means of checking the backlog for the analyst. The analyst can schedule the samples according to priority date, which is calculated according to the laboratory turnaround time and priority. An example of a computer generated work schedule is shown in Figure 8-8.

Operations meetings are held weekly to discuss the status of data. An Operations Report (Figure 8-10) is used by the supervisors and Analytical Services Managers during operations meetings. The Operations Report includes the group No., Client ID, Total number of Tests, Tests ready to be validated and, incomplete tests by department. The Operations Reports allow the supervisor and the Analytical Services Manager to monitor sample status. Also during the Operations meeting, Analytical Services Managers are informed of any issues that may have arisen so that they can proactively contact the client. A list of samples with short turnaround time, 72 hours or less, is kept at sample control. Sample control contacts the analyst when short holding time samples arrive. Bottle orders are completed when clients request containers and supplies. This allows sample control to monitor the amount of samples due to

arrive in the near future.

8.5.7) Data Entry and Report Generation

Data entry is accomplished through a variety of interactive sub-systems. Some situations require the entry of raw data and the system performs calculations, and reports final results and detection limits. In other cases, final data is entered either manually or via instrument interfaces. When the final scheduled test result goes into the system, the Technical Manager/Group Supervisor passes on the reports to the validation section within the system for approval. In all cases, client reports are generated and printed automatically after the verification and approval by the supervisor of each analytical group.

Results are stored in LIMS in such a manner that immediate access is available to these reports. A list of all reports completed, indexed by client number, is maintained on the system. A few keystrokes can recall every report produced for a given client. Additionally, the system provides constant information on laboratory performance. This includes turnaround times reports for every analysis done by the laboratory, and productivity reports grouped into cost isolation accounts. A weekly laboratory Turnaround time report allows the tracking of turnaround time per department to ensure that the laboratory continuously improves its turnaround time and meets client needs. See example of weekly Lab Turnaround Time Report (Figure 8-11).

The system provides several levels of security. The first level is the entry of a password to initially log on to the computer, and then the person must be designated as a qualified user. Additionally, the department to which a person is assigned governs/accesses the various functions of the system. The system also provides for read-only access to results to further protect the data from unauthorized modification or deletion.

9) ANALYTICAL PROCEDURES

9.1) SOURCES FOR METHODS

9.1.1) Standard Methods

9.1.1.1) The laboratory shall evaluate the Precision and Bias of a standard method for each analyte of concern for each quality system matrix according to the single-concentration four-replicate recovery study procedures in TNI-EL-V1M3 to V1M6- 2009-1.6.2.2 (or alternate procedure documented in the quality manual when the analyte cannot be spiked into the sample matrix and QC samples are not commercially available) [TNI-EL-V1M4 and V1M6-2009-1.5.3.a].

9.1.1.2) The analytical methods performed by EEA are based primarily on methods specified by various federal, state, and local regulations. If more stringent standards or requirements are included in the mandated test method or by regulation than the TNI standard, the laboratory ensures that all SOPs meet such requirements. If it is unclear which requirements are more stringent, the laboratory follows the requirements from the method or regulation. All analysts must follow all the Quality Control protocols and all essential QC measures specified by the laboratory's SOPs. The majority of methods come from the U.S. Environmental Protection Agency. Other methods are from Standard Methods for the Examination of Water and Wastewater, 19th, 20th, online, 21st, and 22nd Editions. Additional methods may be used when appropriate.

Methods from the EPA are listed in section 9.6, the references section.

9.1.2) Non Standard Methods

9.1.2.1)
Methods not covered by standard methods are properly validated before use. Non-standard methods when used by the laboratory are subjected to agreement with the Client incorporating the Client's specification requirements, including the purpose of the environmental test. The method is validated appropriately before use [TNI-EL-V1M3 to V1M4-2009-1.4].

9.1.2.2) For laboratory-developed test methods or non-standard test methods as defined in TNI-EL-V1M2- 2009-5.4.3 and ISO/IEC 17025:2005(E)-5.4.3 and TNI-EL-V1M3 to V1M7-2009-1.4 that were not in use by the laboratory before July 2003, the laboratory must have a documented procedure to evaluate precision and bias. The laboratory must also compare results of the precision and bias measurements with criteria established by the client, by criteria given in the reference method or criteria established by the laboratory.

9.1.2.3) Laboratory developed methods may be used when the client does not specify the method to be used or where methods are employed that are not required by regulations, as in the Performance Based Measurement System Approach, the methods shall be fully documented and validated (TNI-EL-V1M2-2009-5.4.2) (ISO/IEC 17025:2005(E)-5.4.2) and TNI-EL-V1M3 to V1M7-2009-1.4), and be available to the Client and other recipients of the relevant reports. The laboratory shall select appropriate methods that have been published either in international, regional or national standards, or by reputable technical organizations, or in relevant scientific texts or journals, or as specified by the manufacturer of the equipment. Laboratory-developed methods or methods adopted by the laboratory are used only if appropriate to the intended use and are validated. The Method Validation

Form (see Figure 9-1) is completed and approved before the Non Standard methods are put in use for production. The laboratory informs the Client as to the method chosen. [TNI-EL-V1M2-2009-5.4.2][ISO/IEC 17025:2005(E)-5.4.2]

9.1.2.4) The laboratory informs the Client when the method proposed by the Client is considered to be inappropriate or out of date. [TNI-EL-V1M2-2009-5.4.2][ISO/IEC 17025:2005(E)-5.4.2]

9.1.3) The introduction of environmental test and calibration methods developed for the laboratory for its own use is a planned activity and is assigned to qualified personnel equipped with adequate resources. Plans are updated as development proceeds and effective communication is ensured among all personnel involved.

9.2) INITIAL TEST METHOD EVALUATION PROCEDURES

For all test methods (other than microbiology or methods where LOD/LOQ determinations are not relevant) the following LOD and LOQ requirements apply.

9.2.1) Limit of Detection (LOD)

9.2.1.1) The laboratory shall determine the LOD by performing the MDL studies determination to conform to CFR136 for the method for each target analyte of concern in the quality system matrices. All sample-processing steps of the analytical method shall be included in the determination of the LOD.

9.2.1.2) The validity of the LOD shall be confirmed by quantitative identification of the analyte(s) in a QC sample in each quality system matrix containing the analyte at no more than 1-3X the LOD for single analyte tests and 1-4X the LOD for multiple analyte tests. This verification must be performed on every instrument that is to be used for analysis of sample and reporting data. LOD verification Acceptance Criteria is detection (>0).

9.2.1.3) An LOD study is not required for any component for which spiking solutions or quality control samples are not available such as temperature, or, when test results are not to be reported to the LOD (versus the method reporting limit or working range of instrument calibration). Where an LOD study is not performed, the laboratory may not report a value below the Limit of Quantitation. Since the EPA Manual for Drinking Water 5th Edition requires MDL studies, the laboratory conducts MDL determinations for all drinking water methods where applicable. EEA does not report down to the LOD but reports down to the LOQ.

9.2.2.1) The laboratory shall determine the LOQ for each analyte of concern according to a defined, documented procedure. LOQ/MRL is 2-3x LOD/MDL. At a minimum, LOQ/MRL > LOD.

9.2.2.2) The LOQ study is not required for any component or property for which spiking solutions of quality control samples are not commercially available or otherwise inappropriate (e.g., pH).

9.2.2.3) As per TNI Std, the validity of the LOQ shall be confirmed by successful analysis of a QC sample containing the analytes of concern in each quality system matrix 1-2 times the claimed LOQ. A successful analysis is one where the recovery of each analyte is within the established test method acceptance criteria or client data quality objectives for accuracy. This single analysis is not required if the bias and precision of the measurement system is evaluated at the LOQ. EEA verifies the validity of the MRL/LOQ daily at the MRL level as per EPA Manual for DW 5th edition.

9.2.2.4) Precision and Bias

Precision and bias measurements must evaluate the method across the analytical calibration range of the method. The laboratory must also evaluate precision and bias in the relevant quality system matrices and must process the samples through the entire measurement system for each analyte of interest [TNI-EL-V1M4 and V1M6- 2009-1.5.3].

Examples of a systematic approach to evaluate precision and bias could be the following for non-standard methods:

9.2.2.4) 1. Analyze QC samples in triplicate containing the analytes of concern at or near the limit of quantitation, at the upper-range of the calibration (upper 20%) and at a mid-range concentration. Process these samples on different days as three sets of samples through the entire measurement system for each analyte of interest. Each day one QC sample at each concentration is analyzed. A separate method blank shall be subjected to the analytical method along with the QC samples on each of the three days. (Note that the three samples of the MRL concentration can demonstrate sensitivity as well). For each analyte, calculate the mean recovery for each day, for each level over days, and for all nine samples. Calculate the relative standard deviation for each of the separate means obtained. Compare the standard deviations for the different days and the standard deviations for the different concentrations. If the different standard deviations are all statistically insignificant (e.g., F-test), then compare the overall mean and standard deviation with the established criteria from above.

9.2.2.4) 2. A validation protocol such as the Tier I, Tier II, and Tier III requirements in US EPA Office of Water's Alternate Test Procedure (ATP) approval process.

9.2.3) Detection Limits

9.2.3.1) The method used in the quantitation of detection limits is as described in 40 CFR 136 Appendix B, which in summary is the analysis of at least seven replicates from which a statistically derived Method Detection Limit (MDL) is calculated. The replicates are determined over at least a 3 day period. This statistically derived limit is based on 3.143 times the standard deviation of 7 low concentration replicates (3-5 times the calculated detection limit). It is the laboratory's policy to be conservative when reporting a method detection limit on a non-detected sample.

9.2.3.2) Consequently, the laboratory has implemented the concept of minimum reporting levels (MRLs). The limit used on a laboratory report must be at or above the lowest standard associated with that analytical run. This ensures that all data reported as "detected" will have some degree of analytical precision associated with it. Data reported below these levels must be appropriately qualified. Copies of current MRLs for the laboratory are available upon request. An MRL can be no lower than the calculated MDL.

9.2.3.3) For newer methods, a Lowest Concentration Minimum Reporting Level (LCMRL) may be required before client samples may be run on the method, annually, and for any new analysts. The LCMRL is essentially a more strict verification of the MRL. See the appropriate method for the exact requirements of an LCMRL and its verification. Section 9.2.4 of EPA Method 524.3 details the requirements for the 524.3 LCMRL, for example.

9.3) ESTIMATION OF UNCERTAINTY

Estimation of uncertainty consists of the sum (combining the components) of the uncertainties of the numerous steps of the analytical process, including, but not limited to, sample plan variability, spatial and temporal sample variation, sample heterogeneity, calibration/calibration check variability, extraction variability, and weighing variability.

The laboratory estimates uncertainty using 2 times standard deviation calculated from 20 routine quality control samples with a guidance of <20% RSD. Refer to the Estimation of Analytical Uncertainty SOP for detailed Measurement Uncertainty procedures.

9.4) METHOD VALIDATIONS [TNI-EL-V1M3 to V1M7-2009-1.5]

9.4.1) The laboratory shall validate non-standard methods, laboratory-designed/developed methods, standard methods used outside their published scope, and amplifications and modifications of standard methods to confirm that the methods are fit for the intended use. The validation shall be as extensive as is necessary to meet the needs of the given application or field of application. The initial test method evaluation requirements given in V1M3 to V1M7 1.6 of TNI Standard 2009 discussed in Section 4.4, MDL and IDC requirements for new analysts are done in validating new methods and non-standard methods [TNI-EL-V1M3 to V1M7-2009-1.5]. This is also applicable when an analyte not currently found on the laboratory's list of accredited analytes is added to an existing accredited test method. Initial evaluation must be performed for that analyte [TNI-EL-V1M4 and V1M6-2009-1.6.2.2.g]. The laboratory records the results obtained for the IDC, MDL, LOD and LOQ studies. The method is fit for the intended use when the results meet all the MDL and IDC criteria for the method.

9.4.2) The range and accuracy of the values obtainable from validated methods (e.g. the uncertainty of the results, detection limit, selectivity of the method, linearity, limit of repeatability and/or reproducibility, robustness against external influences and/or cross-sensitivity against interference from the matrix of the sample/test object), are assessed for the intended use, and relevant to the Client's needs [TNI-EL-V1M7-2009-1.4].

9.5) METHOD VALIDATION/MICROBIOLOGY

To demonstrate the suitability of a test method for its intended purpose, the laboratory meets the acceptance criteria by the EPA or State program requirements. Also, the laboratory must meet the following criteria as per TNI-EL-V1M5-2009-1.5.2 and 1.5.3:

9.5.1) Accepted (official) test methods or commercialized test kits for official methods from recognized national or international standards organizations do not require a specific validation. However to demonstrate proficiency with the test method prior to first use, the laboratory performs comparison to a method already approved for use in the laboratory, or by analyzing a minimum of ten spiked samples whose matrix is representative of those normally submitted to the laboratory, or by analyzing and passing one proficiency test series provided by an approved proficiency sample provider. The laboratory shall maintain this documentation as long as the method is in use and for at least 10 years past the date of last use. [TNI-EL-V1M5-2009-1.5]

9.5.2) The laboratory participates in the proficiency test programs identified by NELAP [TNI-EL-V1M1-2009-4.1.1 and 4.2.1.a] or [TNI-EL-V1M2-2009-5.9.1.b][ISO/IEC 17025:2005(E)-5.9.1.b]. The results of these analyses are used to evaluate the ability of the laboratory to produce acceptable data.

9.6) METHODS USED/SCOPE OF TESTING

9.6.1) The analytical methods used by EEA can be grouped into three major categories: drinking water methods, wastewater methods, and methods for hazardous wastes and solid samples. The following tables provide method descriptions and method numbers for the methods used in these three major groups:

Table 9-1 Method Description for Drinking Water

Table 9-2 Method Description for Wastewater

Table 9-3 Method Description for Hazardous Waste

9.7) METHOD MODIFICATIONS

All method modifications are documented fully in individual SOPs. Methods are modified if and only if the original method goals for precision and accuracy have been met or better. Modifications are usually implemented due to available resources, or to expedite the process without sacrificing quality. Methods are validated prior to analyzing client samples. Validation is based on the method as described in the internal SOP. The validation includes an MDL study, an analyst precision and accuracy study, and subsequent review by the Technical Manager, Lab Director and Quality Manager.

9.8) REFERENCES

Ref	Method Descriptions
1	These methods are available from USEPA, EMSL, Cincinnati, OH 45268. The identical methods were formerly in "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1983.
2	"Methods for the Determination of Metals in Environmental Samples - Supplement I," EPA-600/R-94-111, May 1994. Available at NTIS, PB 94-184942.
3a	USEPA "Methods for the Determination of Organic Compounds in Drinking Water - Supplement I". EPA-600/4-90-020, July 1990. (547, 551)
3b	USEPA "Methods for the Determination of Organic Compounds in Drinking Water - Supplement II." EPA-600/R-92-129, August 1992. (524.2, 548.1, 549.1)
3c	USEPA "Methods for the Determination of Organic Compounds in Drinking Water, Method 525.2, 504.1, and 508.1"
3d	USEPA "Methods for the Determination of Organic Compounds in Drinking Water, Supplement III (502.2, 504.1, 505, 507, 508, 524.2, 525.2, 531.1, 551.1), EPA/600/R-95/131, 08/95. For 1,2,3-TCP low level, CA DHS "Determination for 1,2,3-Trichloropropane in Drinking Water by Purge and Trap Gas Chromatography/ Mass Spectroscopy," (524.2), 02/02.
4	Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, American Public Health Association, 1015 Fifteenth Street NW, Washington, D.C. 20005.
4a	Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992, American Public Health Association, 1015 Fifteenth Street NW, Washington, D.C. 20005.
4b	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 1995, American Public Health Association, 1015 Fifteenth Street NW, Washington, D.C. 20005.
4c	Standard Methods for the Examination of Water and Wastewater, 21st Edition, 2005, American Public Health Association, 800 I Street, NW, Washington, D.C. 20001.
4d	Standard Methods for the Examination of Water and Wastewater, Online Edition, 2005, American Public Health Association, 800 I Street, NW, Washington, D.C. 20001.
4e	Standard Methods for the Examination of Water and Wastewater, 22nd Edition, 2012, American Public Health Association, 800 I Street, NW, Washington, D.C. 20001.
5	Available from Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, CO 80225-0425.
6	"Methods for the Determination of Inorganic Substances in Environmental Samples," EPA-600/R-93-100, August 1993. Available at NTIS, PB94-121811.
7	USEPA "Methods for Chemical Analysis of Water and Wastewater," EPA-600/4-79-020, 1983.
8	Method 100.2, "Determination of Asbestos Structure Over 10-mm In Length in Drinking Water," EPA-600/R-94-134, June 1994. Available at NTIS, PB 94-201902.
9	Industrial Method No. 129-71W, "Fluoride in Water and Wastewater," December 1972, and Method No. 380-75WE, "Fluoride in Water and Wastewater," February 1976, Technician Industrial Systems, Tarrytown, NY 10591.

10	40 CFR Parts 100, 136 to 141. July 1, 1995.
11	"Prescribed Procedures for Measurement of Radioactivity in Drinking Water", EPA-600/4-80-032 (1980), US EPA, August 1980.
12	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, 2nd edition, revised April 1985 and 3rd edition, September 1986.
13	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, Update III.
14	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, Update II
14a	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, Update I
14b	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, Update IV
14c	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA SW-846, On-line
15	Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater – Volume 1 – EPA 821/R-93-010A. August 1993. Revision 1. Method 614. The Determination of Organophosphorus Pesticides in Municipal and Industrial Wastewater.
16	Method 300.1 Determination of Inorganic Anions in Drinking Water by Ion Chromatography, Revision 1.0 1997 (Stand Alone Method)
17	Federal Register, 12/1/99, USEPA 40 CFR Parts 141 & 143 National Primary & Secondary Drinking Water Regulations: Analytical Methods for Chemical & Microbiological Contaminants & Revisions to Laboratory Certification Requirements; Final Rule
17a	Methods Update Rule, March 12, 2007, 40 CFR Parts 122, 136 and 141. Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; National Primary Drinking Water Regulations; and National Secondary Drinking Water Regulations; Analysis and Sampling Procedures; Final Rule.
17b	Methods Update Rule, March 18, 2012, 40 CFR Parts 136, 260, 423, 430, and 435. Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Sampling Procedures; Final Rule.
18	Method 515.4 Determination of Chlorinated Acids in Drinking Water by Liquid-liquid Microextraction, Derivatization, And Fast Gas Chromatography with Electron Capture Detection, Revision 1.0, April, 2000, EPA 815-R-00-014
19	Method 531.2 Measurement of n-Methyl Carbamoyloximes and n-Methylcarbamates in Water by Direct Aqueous Injection – HPLC with Postcolumn Derivitization, Revision 1.0, September, 2001, EPA 815-B-01-002
20	USEPA "April 2000 draft – Method 1602." April, 2000.
21	EPA Method 522 Determination of 1,4-Dioxane in drinking water by solid phase extraction (SPE) and gas chromatography/mass spectrometry (GC/MS) with selected ion monitoring (SIM), Revision 1.0, September 2008, EPA/600/R-08/101
22	EPA Method 521 Determination of Nitrosamines in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography with Large Volume Injection and Chemical Ionization Tandem Mass Spectrometry (MS/MS) , Revision 1.0, September 2004, EPA/600/R-05/054
23	US ENVIRONMENTAL PROTECTION AGENCY. Jul 2001. Determination of Inorganic Oxyhalide Disinfection By-products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis, Draft Method 317.0, EPA/815/B-01/001. Technical Support Center Office of Ground Water and Drinking Water, Cincinnati, Ohio.
24	EPA Method 549.2 Determination of Diquat and Paraquat by High Performance Liquid Chromatography, Revision 1.0, June 1997
25	EPA Method 1613B Determination of 2,3,7,8-TCDD in Drinking Water by Capillary Column Gas Chromatography with Large Volume Injection and Electron Ionization Tandem Mass Spectrometry (EI/MS/MS), Version 1.0 Sept. 1994.
26	EPA Method 524.3, Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry. Version 1.0 June 2009
27	EPA Method 527 Determination of Selected Pesticides and Flame Retardants in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography/Mass Spectrometry (GC/MS), Revision 1.0, April 2005
28	EPA Method 552.3 Determination of Haloacetic Acids and Dalapon in Drinking Water by Liquid-Liquid Microextraction, Derivatization, and Gas Chromatography with Electron Capture Detection, Revision 1.0
29	EPA Method 535 Measurement of Chloroacetanilide and Other Acetamide Herbicide Degradates in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS), Version 1.1, April 2005
30	EPA Method 529 Determination of Explosives and Related Compounds in Drinking Water by Solid Phase Extractions (SPE) and Capillary Column Gas Chromatography/Mass Spectrometry (GC/MS), Revision 1.0, September, 2002
31	Method for the Determination of Radium-228 and Radium-226 in Drinking Water by Gamma-ray Spectrometry Using HPGE or Ge(Li) Detectors, December, 2004, Revision 1.2, Environmental Resource

	Center, Georgia Institute for Technology, Atlanta, GA.

10) PURCHASING SERVICES AND SUPPLIES/ MEASUREMENT TRACEABILITY

10.1) PURCHASING SERVICES AND SUPPLIES

10.1.1) Documented procedures for the purchase, receipt and storage of reagents and standards (consumable materials) used for the technical operations of the laboratory must be followed by all personnel as per TNI-EL-V1M2-2009-5.6.4.2. Refer to the Purchasing Supplies, Equipment, and Services SOP for detailed procedures.

10.1.2) Purchased supplies and services that affect the quality of environmental tests are of the required quality by using approved suppliers and products.

10.2) REAGENTS AND REFERENCE STANDARDS

10.2.1) All chemicals used by EEA are ACS Reagent Grade, or better. Wherever possible, standards are from sources that are traceable to the National Institute for Standards and Technology (NIST). The laboratory ensures the use of reagents of same or better purity than that specified in the method. Thus, the analyst checks the label of the container to verify that the purity of the reagents meets the requirements of the particular method. The purchased supplies and reagents that affect the quality of the tests are not used until they are inspected or otherwise verified as complying with requirements defined in the test method.

10.2.2) Procedures shall be in place to ensure prepared reagents meet the requirements of the test method [TNI-EL-V1M2-2009-5.6.4.2.e]. If the method does not specify reagent quality, at a minimum the laboratory uses analytical “Reagent Grade” or better quality for all reagents.

10.2.3) Calibration Standards

10.2.3.1) Stock standards are obtained from the EPA Repository, or suppliers traceable to NIST, for the organic compounds. The metal stock solutions are obtained from NIST traceable sources. Initial calibration verification standards are obtained from a second “Manufacturer or lot” if lot can be demonstrated from the manufacturer as prepared independently from other lots [TNI-EL-V1M4-2009-1.7.1.1.d]. Stock solutions for surrogate parameters and other inorganic compounds are made up by the analysts from the appropriate reagent grade chemical specified in the procedure.

10.2.3.2) Stock standards are utilized to make working standards of lower concentration, which are then used to make calibration standards for the analytical run. The holding periods of stock standards, working standards, and calibration standards for the different analyses are provided in Table 10-2.

10.2.3.3) Stock standards, working standards, and calibration standards are all prepared in accordance with the method procedure. A logbook is maintained for standards preparation providing the initials of the analyst preparing the standard, the date of preparation, the concentration made up, and the lot numbers and suppliers. Since only one set of working standards is prepared at a time, the date of an analytical run can be keyed to the date of the working standards preparation to provide traceability to the particular lots of reagents from which the calibration standards were derived.

10.2.3.4) Calibration standards are run at the beginning of each day's analysis and a single standard is run every 10 samples throughout the analysis and at the end of the run to check for instrument drift. This "check" standard can also be used as an additional measure of analytical precision in addition to the LCS. Beginning and ending check standards must be at varying concentration within the established calibration range. If an internal standard is used, one CCV check must be analyzed per batch and an ending CCV may not need to be run unless required by method.

10.2.3.5) At the beginning of each day of analysis, all instruments must be calibrated. The calibration standards used must encompass a range of low, mid and high level concentrations to determine the calibration curve. The low level standard must be at or below the MRL value, the high level standard must be at the high end of the calibration range range and the mid level standard must be approximately midway between the low and high concentrations. Calibration procedures vary for the different instrumental methods and are summarized on Table 11-1. Section 11.1 for some representative methods.

10.2.4) Policy on Verification of Standards

All information relating to standards preparation and verification must be documented in the Standards Preparation notebook for that analysis. All documentation required must be examined by the analyst and signed off by the

section supervisor. All documentation for each group must be stored in a central location (i.e. the standards preparation room). For microbiology, performance checks including the organisms used, their culture collection reference, date of issue of specification, or statements assuring that the relevant batch meets the product specifications is verified [TNI-EL-V1M5-2009-1.7.3.6].

10.2.4.1) Mixtures

New standard mix preparations must be compared to the previous mix. The concentrations calculated for the new standard must be within 10% of the "true" value (or as per the specific SOP). If the new standard does not agree within 10%, a third standard must be prepared by a different analyst and compared to the previous two. The third standard must agree with either the "old" standard or the "new" standard. If the third standard agrees with the "old" standard the third standard is used as the "new" standard. If the third standard agrees with the "new" standard the "old" standard is discarded and both the "new" and third standards can be used. In both cases the "new" standard must be verified by comparing to a "known" reference standard before discarding the old standard. Note that for some methods it may not be possible for the new standard to agree within 10% (see the specific SOP).

A new calibration curve must be prepared analyzing both the new standard and a known reference sample. The calculated value must fall within the acceptance limits for the reference sample.

10.2.4.2) Neat Compounds

The identity and purity of any new bottle of neat material must be verified either by the method it will be used to monitor or, preferably, by a different method.

For Organics, a solution of the new neat material must be compared to the old standard as a check on identity and purity. Acceptance criteria are detailed in the previous Mixtures section. For inorganics the new stock standard must be compared to the old stock standard as a check on concentration.

10.3) DOCUMENTATION RECORDS OF REAGENTS AND STANDARDS

10.3.1) A logbook is maintained for all standards. Each log contains the date of fresh stock preparation, the manufacturer’s lot number and supplier, the preparer's initials, the weight of material and the final volume used to prepare the stock.

10.3.2) The laboratory shall retain records for all standards, reagents, reference materials and media including the manufacturer/vendor, the manufacturer’s Certificate of Analysis or purity (if supplied), the date of receipt, recommended storage conditions, and an expiration date after which the material shall not be used unless it is verified by the laboratory [TNI-EL-V1M2-2009-5.6.4.2].

10.3.3) Original containers (such as provided by the manufacturer or vendor) shall be verified and labeled with an expiration date [TNI-EL-V1M2-2009-5.6.4.2.b].

10.3.4) Records shall be maintained on standard and reference material preparation. These records shall indicate traceability to purchased stocks or neat compounds, reference to the method of preparation, date of preparation, expiration date and preparer’s initials.

10.3.5) Where traceability to NIST is not applicable, the laboratory shall provide satisfactory evidence of correlation of results, example participation in proficiency testing or independent analysis of reference standards and reference materials [TNI-EL-V1M2- 2009-5.6.4.1].

10.3.6) All containers of prepared standards and reference materials must bear a unique identifier and expiration date, and be linked to documentation requirements in 10.3 above [TNI-EL-V1M2-2009-5.6.4.2.d].

10.3.7) All containers of prepared reagents must bear a preparation date. An expiration date shall be defined on the container or documented elsewhere as indicated in the laboratory’s quality manual or SOP [TNI-EL-V1M2-2009-5.6.4.2.d and 5.9.3.a.vi].

10.4) REAGENT STORAGE AND DISPOSAL

10.4.1) Standards are stored in designated refrigerators or freezers. Samples/extracts/digestates are not stored in these refrigerators due to the potential for cross-contamination.

10.4.2) All reagents, solvents and reactive chemicals are stored in their original containers in appropriate cabinets or storage closets specifically designed for this use. See Table 10-1, for storage instruction. Date received and date opened must be recorded on each reagent container.

11) CALIBRATION PROCEDURES AND FREQUENCY

The production of analytical data of known, defensible and documented quality requires adherence to standardized procedures, which cover all aspects of laboratory operation. The following sections provide details of the standardized procedures relating to instrumentation calibration.

11.1) INITIAL INSTRUMENT CALIBRATION

Prior to use, every instrument must be calibrated according to a specified procedure found in the method-specific SOP. Table 12-1 lists all major laboratory equipment. Table 11-1 lists the minimum calibration frequency of use and the acceptance criteria for the various calibration techniques, on a method by method basis. Table 11-2 also summarizes the calibration methods and number of calibration standards that are used on an instrument basis. Table 11-3 lists the ion abundance tune criteria, which must be met during calibration, for mass spectroscopy methods such as 524.2 and 525.2. Calibration frequency and criteria included in the tables are only for representative test methods. Calibration procedures for other methods can be found in relevant SOPs.

Each instrument, and support equipment including reference standards of measurements such as Class S weights or equivalent weights, and traceable thermometers are marked and identified to indicate its calibration status such as "Calibration due date."

11.1.1) Applicability

11.1.1.1) The creation of this or any other policy is designed to be a guideline to ensure that all data are treated alike, and thus ensuring that data generated on any particular day of analysis are representative of the norm. The policies are not intended to be absolute criteria for the acceptance or rejection of any analytical data.

11.1.1.2) There is no substitute for the inherent familiarity that each analyst has with his or her specific analysis, and consequently their assessment of the data must be considered in cases where the acceptance criteria outlined in policy or SOPs cannot be achieved. Data generated in situations where one or more of the requirements outlined cannot be met will be reviewed on a case-by-case basis by the QA staff and the appropriate Technical Manager for acceptance. A detailed Quality Investigation Report (QIR) must have been completed and included in the data package to justify any deviation from policy or SOP protocols.

11.1.2) Linearity

11.1.2.1) All calibrations must be linear unless otherwise defined in the specific SOP and allowed by the reference method. Many organic methods may allow or require the use of a quadratic fit for some compounds. Linearity here is defined as a calibration curve that meets the back-calculation criteria presented below, unless the SOP contains different criteria. Specific protocols outlined in a given SOP will always take precedence over generic policies outlined in this Quality Manual.

11.1.2.1) 1. Linear Regression

y = mx + b

Where:

y = Response Ax for External Standard or Ax/Ais for Internal Standard
x = Concentration Cx for external standard, or Cx/Cis for internal standard
m = Slope
b = Intercept

11.1.2.1) 2. Linear Regression Statistical Equations

Slope (m) → $m = \frac{[(Swx_i y_i \times Sw) - (Swx_i \times Swy_i)]}{[(Sw \times Swx_i^2) - (Swx_i \times Swx_i)]}$

Intercept (b) → $b = y_{ave} - (m \times (x_{ave}))$

Correlation Coefficient (r) →

$$r = \frac{[(SW \times Swx_i y_i) - (Swx_i - Swy_i)]}{\sqrt{[Sw \times Swx_i^2) - (Swx \times Swx_i)] \times [(Sw \times Swy_i^2) - (Swy_i \times Swy_i)]}}$$

Coefficient of Determination (r^2) → $r^2 = r \times r$

Where:

n = number of x, y pairs
xi = individual values for the independent variable
yi = individual values for the dependent variable
w = weighting factor, for equal or no weighting w = 1
x_{ave} = average of the x values
y_{ave} = average of the y values
S = the sum of all the individual values

11.1.2.1) 3. Quadratic Regression Equation

$y=ax^2 + bx + c$

Where:

y = Response Ax for external standard, or Ax/Ais for internal standard
x = Concentration Cx for external standard, or Cx/Cis for internal standard

11.1.2.1) 4. Equation for Concentration

External Standard Equation → $C_x = \frac{(A_x - b)}{m}$

Internal Standard Equation → $C_x = \left(\frac{A_x/A_{is} - b}{m}\right) C_{is}$

11.1.2.2) If the method does not specify the acceptance criteria for the linear fit, the laboratory will establish a policy for acceptance criteria of 0.995 for correlation coefficient. The calibration curve is verified using any one of the following:

11.1.2.2) 1. Coefficient of Determination (r2)

$$r^2 = \frac{S(y_i - y_{ave})^2 - [(n-1)/(n-p) \times (S(y_i - Y_i)^2]}{S(y_i - y_{ave})^2}$$

Where:
yi = individual values for each dependent variable
xi = individual values for each dependent variable
yave = average of the y values
n = number of pairs of data
p = number of parameters in the polynomial equation (i.e., 3 for third order, 2 for second order

$$Y_i = \frac{\left\{\left[2a \times \left({C_x}/{C_{is}}\right)^2\right] - b^2 + b + (4ac)\right\}}{4a}$$

S = the sum of all the individual values

11.1.2.2) 2. An initial calibration verification standard (ICV's) is immediately run after the curve. The standard is preferably obtained from a 2nd source or different lot if the lot can be demonstrated from the manufacturer as prepared independently from other lots [TNI-EL-V1M4-2009-1.7.1.1.d]. Concentrations that lie in the middle of the curve must have an acceptable recovery of ± 10% of the true value.

11.1.2.2) 3. The linear curve will be acceptable if the curve meets the back-calculation criteria, i.e. back calculating the initial calibration standards against the developed model, with an acceptance criteria of ± 10% recovery of the true value.

11.1.3) Selection of Quantitation Technique (Organics)
11.1.3.1) For organic analysis, a decision must be made during the validation process (and detailed in the SOP) as to whether an internal or external quantitation technique will be routinely employed.

11.1.3.2) The internal standard method of quantitation cannot be employed unless all of the following conditions are met:

11.1.3.2) 1. The internal standard must be added post-extraction. For Method 525.2, it is added pre-extraction.

11.1.3.2) 2. The internal standard must be added quantitatively.

11.1.3.2) 3. Any analyte that is a target analyte using the method of interest may not be selected for use as the internal standard.

11.1.3.2) 4. The concentration of the internal standard(s) must not exceed the calibration range of the method target analytes. In cases where the target analytes are associated with more than one calibration range (i.e. analytes "1-4" are calibrated from 1 to 10 µg/L, while analyte "5" is calibrated from 10 to 100 µg/L, and analytes "6-10" are calibrated from 2.5 to 25 µg/L), the concentration of the internal standard must be prepared at a level between the highest calibration standard of the highest and lowest absolute calibration range. (e.g. approximately 50 µg/L in the example given).

11.1.3.3) The use of internal standard quantitation is of greatest benefit in those methods subject to a great deal of injection variability, and thus a great deal of variability in the absolute mass injected onto the column(s) employed. The drawback to this technique for GC methods is that any compound that exhibits a similar retention time as the compound used for the internal standard will be identified as the internal standard, leading to erroneous quantitation. For this reason, the internal standard technique is most useful for GC/MS where deuterated analytes not naturally occurring can be detected and quantified.

11.1.4) Selection of Calibration Method
11.1.4.1) During the method validation process, a least square regression is initially tried as a calibration method. The responses from each of the calibration standards must then be input into the linear regression equation to determine whether or not the corresponding concentrations meet the acceptance criteria outlined below. If the acceptance criteria cannot be met using a linear regression, then a second order polynomial fit can be used to fit the data, with r2 ≥ 0.99 as the acceptance criteria. In the event that neither a simple linear regression nor a second order polynomial fit result in an equation which meets the calibration acceptance criteria, then the calibration range must be broken down into two or more smaller ranges. Each of the subsequent ranges must individually meet all of the requirements for a single calibration range. If a linear regression works, a single average response factor may be used if the calibration is linear through the origin and it is consistent with the referenced method.

11.1.4.2) As part of the validation process, the specific calibration range and calibration algorithm must be determined and documented in the SOP. Once determined in this manner, the same protocols must be followed each time the method is employed. This will ensure that data reduction is not performed differently on separate data sets or by different analysts.

11.1.5) Minimum Number of Calibration Levels

The calibration for linear fits must include a minimum of three initial calibration standards plus a blank unless specified otherwise in the SOP. Polynomial fits must include at least 5 standards. The minimum requirement for a NELAP Lab as per TNI-EL-V1M4-2009-1.7.1.1.j is: a minimum of three (3) standards (one of which is lowest quantitation limits, not including a blank or zero standard), if the reference method does not specify the minimum number of initial calibration standards.

11.1.6) Selection of Calibration Levels

11.1.6.1) To avoid weighting a calibration curve to create a better fit than is warranted, three standards must be included per order of magnitude of concentration of the calibration curve. For example 0.1, 0.5, 1.0, 5.0, 10.0 has 3 standards per order of magnitude (0.1, 0.5 and 1.0, and 1.0, 5.0 and 10.0).

11.1.6.2) The lowest calibration standard shall be the lowest concentration for which quantitative data are to be reported. Any data reported below the lower limit of quantitation is considered to have an increased quantitative uncertainty and is reported using either "J" flags or explained in the case narrative [TNI-EL-V1M4-2009-1.7.1.1.f].

11.1.6.3) The highest calibration standard shall be the highest concentration for which quantitative data are to be reported. Any data reported above the highest standard is considered to have an increased quantitative uncertainty and is reported using "E" flags or explained in the case narrative [TNI-EL-V1M4-2009-1.7.1.1.g].

11.1.6.4) Measured concentrations outside the working range are reported as having less certainty and are reported using "E" flags or explained in the case narrative. The lowest calibration standard must be above the limit of detection, usually at MRL level except for ICP that allows zero point and single point calibration. [TNI-EL-V1M4-2009-1.7.1.1.h].

11.1.6.5) A good approach to select calibration levels when the calibration range is expected to span at least one order of magnitude is to set the levels at 1 MRL, 5 MRL, and 10 MRL for a simple 3 point calibration. If more points are desired, then they would follow the same scheme, i.e. 50 MRL, 100 MRL.

11.1.7) Calibration Analytical Sequence

11.1.7.1) The calibration must progress from the analysis of the lowest to highest standard unless the instrumentation does not permit it or the method requires calibration from high to low. A blank must be analyzed after the highest calibration standard.

11.1.7.2) If the analysis requires an initial high standard to set the gain a blank must be run before starting with the low calibration standard unless the instrumentation does not permit it.

11.1.8) Calibration Acceptance Criteria

For linear fits, in general, the calculated value for standards (using the calibration curve or response factor) must be within 10% of the nominal value for mid-level standards. However, the value determined by the calibration curve for the lowest standard (conc. is at the MRL) must be within ± 50% of the true value or ± 25% of the true value if the lowest standard is >5X & <10X MRL. Accurate quantitation at the MRL level may require use of a second order fit or separation of the curve into multiple linear segments. Mid level standards (conc. > 10X MRL) must be within ± 10% of the true value. Relevant SOPs must be reviewed for the method and laboratory calibration verification specific criteria, which may be different from those stated here.

11.2) CONTINUING INSTRUMENT CALIBRATION

11.2.1) Continuing calibration (CC) is run as required by the method. Refer to specific SOPs to determine the frequency and acceptance criteria of continuing calibration verifications.

11.2.2) The continuing calibration standard must be near the mid-point of the calibration curve unless the method requires rotation of concentration levels.

11.2.3) The calculated value for the continuing calibration standard must be within control limits stated in the specific SOP.

11.2.4) Calibration shall be verified for each batch for each compound, element, or other discrete chemical species, except for multi-component analytes such as Aroclors, Chlordane, or Toxaphene where a representative chemical related substance or mixture can be used.

11.2.5) Instrument calibration verification must be performed:

11.2.5.1) At the beginning and end of each analytical batch (except, if an internal standard is used; only one

verification needs to be performed at the beginning of the analytical batch). As per Standard Methods sections 1020 and 3020, run CCVs every 10 samples.

11.2.5.2) Whenever it is expected that the analytical system may be out of calibration or might not meet the verification acceptance criteria.

11.2.5.3) If the time period for calibration of the most previous calibration has expired, or

11.2.5.4) For analytical systems that contain a calibration verification requirement.

11.2.6) If the method does not specify criteria for the acceptance of a continuing instrument calibration, verification must be established, e.g., relative percent difference.

11.2.7) If the continuing instrument calibration verification results obtained are outside established acceptance criteria, corrective actions must be performed.

11.3) UNACCEPTABLE CONTINUING INSTRUMENT CALIBRATION VERIFICATIONS

11.3.1) If routine corrective action procedures fail to produce a second consecutive (immediate) calibration verification within acceptance criteria, then either the laboratory has to demonstrate acceptable performance after corrective action with two consecutive calibration verifications, or a new initial instrument calibration must be performed.

11.3.2) If the laboratory has not verified calibration, sample analyses may not occur until the analytical system is calibrated or calibration verified. If samples are analyzed using a system on which the calibration has not yet been verified the results shall be flagged.

11.3.3) If these criteria are not met, a second continuing calibration standard must be run (either freshly prepared or a second injection, as appropriate). No individual analyte can fail the CC criteria two consecutive times. If the criteria are still not met, a new initial calibration must be run and the new calibration curve verified. The laboratory qualifies the data with “V” flag if the sample data is associated with failed calibration verification.

11.3.4) As per TNI-EL-V1M4- 2009-1.7.2.e, data associated with an unacceptable calibration verification may be fully useable under the following special conditions:

11.3.4.1) If there was a high bias and there is a failed continuing calibration verification, the lab reports only data associated with samples that are non-detects.

11.3.4.2) If there was a low bias and there is a failed continuing calibration verification, the lab reports only data associated with samples that have a result greater than the maximum regulatory limit/decision level.

12) EQUIPMENT

12.1) ANALYTICAL EQUIPMENT

12.1.1) All equipment is properly maintained, inspected, and cleaned.

12.1.2) Table 12-1 contains a list of the major analytical equipment used during sample preparation and analysis. For Microbiology, pressure cookers are not used for sterilization of growth media [TNI-EL-V1M5-2009-1.7.3.7.b.ii].

12.2) SUPPORT EQUIPMENT

12.2.1) Balances

Analysts are responsible for daily calibration verification checks of the analytical balances in the laboratory with Class S weights and annual calibrations of the drying ovens thermometer with an NIST traceable certified thermometer. Documentation of the balance and oven checks is maintained in the appropriate logbook. Reference certified thermometers are calibrated every five years. A yearly thermometer calibration check is done for all other thermometers and all thermometers are labeled showing any necessary correction to achieve true readings. Balances are calibrated annually and Class S-weights are calibrated every 5 years by an outside vendor. Copies of these balance and thermometer records are filed with the QA records for the laboratory. All Class S weights and traceable thermometer standards are used for calibration only and for no other purpose to ensure that the performance as reference standards are always valid.

Balance calibration is verified on the day of use prior to weighing samples, standards or reagents. If balance does not meet the acceptable criteria of ± 0.1 % or other vendor recommended limits, the analyst reports to QA that balance needs service. The instrument is labeled “out of service” until repaired. The Analyst records the problem

and identifies corrective action, date of service, and if corrective action resolved the problem.

12.2.2) Temperature Monitoring
Refrigerators, incubators, temperature are monitored 2 times daily in at least 4 hour intervals. If the temperature measured is not meeting the acceptance criteria of 4± 2□C, analyst reports to the QA department. QA then monitors the temperature after 2 hours and more often if needed. If non-compliance is still observed, QA calls for service. The instrument is labeled "out of service" until repaired. QA records the problem identified, corrective action, date of service, if called, and if corrective action resolved the problem.

12.2.3) Pipets
Eppendorf pipette function verification is done on the day the standards are prepared for pipets used for the preparation of both the primary and secondary standards. Monthly frequency is done for pipets used either for the preparation of either the primary or secondary standards and for Class A pipets used for the preparation of the other set of standards. When used over a range of settings, the pipet is calibrated at the highest and lowest settings. If not meeting the acceptable range of ± 2 % of the set value, the analyst investigates and identifies the problem. The pipet is cleaned if needed and inspected for signs of wear or damages or for residual liquids that may have been sucked in the pipet. After the appropriate Corrective Action, the pipet is again calibrated. Corrective Action taken and problem identified is recorded. If corrective action did not resolve the problem, the analyst documents in the logbook that the pipet is off-line. The pipet is also labeled "out of service" until repaired.

12.2.4) Microbiology Volumetric Equipment [TNI-EL-V1M5-2009-1.7.3.1.a.iii]
Volumetric Equipment shall be calibrated as follows:

12.2.4.1) Equipment with movable parts such as automatic dispensers, dispensers/diluters, and mechanical hand pipettes shall be verified for accuracy quarterly.

12.2.4.2) Equipment such as filter funnels, bottles, non-class A glassware and other marked containers shall be calibrated once per lot prior to its use.

12.2.4.3) The volume of the disposable volumetric equipment such as sample bottles, disposable pipettes, and micropipette tips shall be checked once per lot.

12.2.5) Glassware
Refer to the current SOP for glassware cleaning. All class volumetric glassware is dried at room temperature rather than oven baked.

The washing and sterilization procedures for laboratory glassware are tested annually by testing glassware for inhibitory residues as shown in Standard Methods.

12.2.6) Water Quality File
The pure water system for EEA was assembled by US Filter in January 2003. It consists of reverse osmosis, mixed bed deionizers, ultraviolet disinfection, filtration, and an organic scavenger side stream return loop. The system is connected to a conductivity meter which signals when the mixed bed resin demineralizers need to be changed.

The quality of laboratory pure water is analyzed monthly for conductivity, pH, chlorine residual, TOC, and standard plate count and annually for water suitability ratio, inhibitory residue (annually, each time new lot of detergent and for new washing procedures), and trace metals (Pb, Cd, Cr, Cu, Ni, and Zn). Table 12-3 lists the acceptance criteria for these analytes. This data is recorded and submitted to the QA department. These reports are with the QA Department for review and maintained for ten years.

12.2.7) Out of Service
All major instruments if off line will be labeled "out of service" until repair.

12.3) PREVENTIVE MAINTENANCE
12.3.1) Routine Maintenance Activities
EEA carries maintenance contracts on all major laboratory equipment, under which much of the preventative maintenance is performed. Routine servicing, such as cleaning of rods, source, or detectors, is performed on a regular basis by the analyst. This type of service is performed according to the procedures and at the frequency specified by the manufacturer. Routine maintenance is done when instrument performance starts to degrade as demonstrated by a failure to meet one or more QC criteria, decreased ion sensitivity, degrading peak resolution, lowered response factors, or shifts in calibration curves. Activities that are performed on a routine basis can be found in the Instrument Maintenance SOP.

12.3.2) Documentation

Instrument maintenance logbooks are maintained for most major instruments. All repairs and any routine or non-routine maintenance activities are recorded in the logbooks. The date of the activity, the person performing it, and the nature of the activity are recorded. Expendable items for all major instruments are kept on hand to minimize downtime.

The following are documented in the instrument logbooks:

12.3.2.1) Name of the item of the equipment

12.3.2.2) Manufacturer's name, type identification and serial number or other unique identification

12.3.2.3) Date received and date placed in service

12.3.2.4) Current location, where appropriate

12.3.2.5) Condition when received (e.g. new, used, reconditioned)

12.3.2.6) Copy of manufacturer's instructions where available

12.3.2.7) Dates and results of calibrations and/or verifications and date of the next calibration and/or verification

12.3.2.8) Details of maintenance plan carried out to date and planned for the future

12.3.2.9) History of any damage, malfunction, modification or repair

12.3.2.10) Records of service calls

12.3.2.11) Calibration status for instrument that are calibrated outside the direct control of the laboratory are checked before use (after an instrument is returned from outside repair) [TNI-EL-V1M2-2009-5.5.9][ISO/IEC 17025:2005(E)-5.5.9].

12.3.3) Contingency Plans

12.3.3.1) An effort is made to have a functionally equivalent backup instrument available in case of a catastrophic instrument failure. Maintenance contracts are carried on the major instruments and generally provide for 24-48 hour response for repairs. If necessary, EEA has a list of qualified laboratories to subcontract work to, upon client approval.

12.3.3.2) In the event a holding time expires while the sample is in the custody of EEA, an Analytical Services Manager will call the client to inform them of this situation. Based on subsequent arrangements made between the lab and the client, fees for re-sampling and subsequent analysis may be incurred by the lab.

13) DOCUMENT MANAGEMENT/CONTROL OF RECORDS

13.1) ANALYTICAL DOCUMENTATION

A critical dimension of any quality assurance program is the ability to document what is occurring in the laboratory. Accordingly, EEA uses a number of forms to document various aspects of laboratory procedures. A discussion of these forms follows.

13.1.1) Analytical Data and Quality Control Forms

Printed forms are used by analysts to standardize the format of routine analyses. For analyses where forms are not available, the analyst records all required information in a notebook. The forms are designed to minimize calculation errors and provide a summary of all quality control data generated for the run. All new worksheet calculations are manually validated, and the validations are documented. After completion of the validations, all work sheets are locked to prevent any change in calculations.

Analysts are responsible for maintaining these forms. The QA group spot checks these forms periodically. These forms are actively maintained in hardcopy until scanned, then stored electronically.

13.1.2) Chromatograms and Data Processing

Chromatograms and strip chart recordings are assigned unique alpha-numeric codes and backed-up on the server or an external hard drive. Information contained within the code includes; test, date and numerical sequence.

Computer records are stored by internal sample ID and test and therefore can be queried on this information.

Scanned hardcopy outputs of chromatograms and data processing are filed with the analytical data forms. Chromatograms and library searches are stored on magnetic tape and the information is retrievable upon client request.

13.1.3) Inventory Control Logs
Records are maintained on the purchase of laboratory supplies detailing the vendor, purchase order number, date of order, and date of receipt. Bottles of reagents are dated upon received so that the shelf life can be monitored.

13.1.4) Stock Standard Logs
A logbook is maintained for preparation of analytical stock standards for each group. Each log contains the date of fresh stock preparation, the lot number and supplier, the preparer's initials, and the weights used to prepare the stock.

13.1.5) Bacteriological Growth Media Log
Upon receipt of new microbiological media, the date received is noted upon the container. Media supplies are dated not only upon receipt but also when initially opened. A written record of quality control on media, materials, and equipment is logged into the Micro QC book. The record includes the results of the check, the initials of the individual performing the check, and the date. Media prepared in the lab is logged into the Prepared Media Log by the analyst. These records include media lot number, date of preparation, manufacturer and lot number, type and amount of media prepared, sterilization time and temperature, final pH, the analyst's initials, and expiration date.

13.1.6) Instrument Monitoring and Maintenance Logs
13.1.6.1) When in use, the operating temperatures of incubators, water baths, hot air ovens, and refrigerators are checked daily and recorded. Adjustments or service calls are made when required. Autoclave sterility checks, using ampules of bacterial spores, are made at least monthly, or whenever a problem is suspected but all items are autoclaved with sterility indicator tape. Records of the maintenance are maintained in equipment logs.

13.1.6.2) A separate maintenance logbook is maintained for each analytical instrument. These logs contain a record of routine maintenance as well as any repair work required during instrument set-up.

13.1.7) Corrective Action
The eJIRA form requires documentation on the determination of the out-of-control event or variance, the diagnostics performed to bring the event back under control, and the manner in which re-establishment of control was demonstrated. The analyst and supervisor completes the CAR on eJIRA and submits it to the QA department for review. Then QA distributes the corrective action to the appropriate Analytical Services Manager so that the client may be contacted if necessary.

13.2) CONTROL OF RECORDS
Figures 13-1 and 13-2 are examples of worksheets and notebooks used in data reduction.

13.2.1) General Records
13.2.1.1) The laboratory’s document control procedure includes identification, collection, indexing, access, filing, storage, maintenance and disposal of quality and technical records. Quality records include reports from internal audits and management reviews as well as records of corrective and preventive actions. Records are in the form of hard copy or electronic media.

13.2.1.2) All records are required to be legible and are stored and retained in such a way that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss. Records are retained for 10 years held secure and in confidence as per TNI-EL-V1M2-2009-4.13.1.3 and 4.13.3.b (ISO/IEC 17025:2005(E)-4.13.1.3 and 4.13.3.b). 10 years are required for Massachusetts, Hawaii, and New York samples.

13.2.1.3) The laboratory has implemented procedures to protect and back-up records stored electronically and to prevent unauthorized access to or amendment of these records by setting up level of security and/or designating appropriate personnel responsible for the security of the records.

13.2.1.4) The following information is documented as per TNI-EL-V1M2-2009-4.13.3.

13.2.1.4) 1. The records include the identity of personnel involved in sampling, sample receipt, preparation, calibration, or testing.

13.2.1.4) 2. All information relating to the laboratory facilities equipment, analytical test methods, and related laboratory activities, such as sample receipt, sample preparation, or data verification are documented.

13.2.1.4) 3. The record keeping system facilitates the retrieval of all working files and archived records for inspection and verification purposes by setting format for naming electronic files.

13.2.1.4) 4. All changes to records are signed or initialed by responsible staff. The reason for the signature or initials is clearly indicated in the records such as “sampled by”, “prepared by”, or “reviewed by”.

13.2.1.4) 5. All generated data except those that are generated by automated data collection systems, are recorded directly, promptly and legibly in permanent ink [TNI-EL-V1M2-2009-4.13.3.g].

13.2.1.4) 6. Entries in records are not obliterated by methods such as erasures, overwritten files or markings. All corrections to record keeping errors are made by one line marked through the error. The individual making the correction signs (or initials) and date the correction. These criteria also apply to electronically maintained records [TNI-EL-V1M2-2009-4.13.2.3, 4.13.3.g.i (ISO/IEC 17025:2005(E)-4.13.2.3, 4.13.3.g.i). The laboratory keeps correspondence relating to lab activities for specific projects. Documentation includes email correspondence between the Analytical Services Manager and client.

13.2.2) Technical Records

13.2.2.1) The laboratory retains technical records of original observations, derived data and sufficient information to establish an audit trail, calibration records, staff records and a copy of each test report issued, for a defined period. The record for each environmental test or calibration contains sufficient information to facilitate and to enable the environmental test to be repeated under conditions as close as possible to the original. The records include the identity of personnel responsible for the performance of each environmental test, checking of results, and sampling (if sampling conducted by EEA) documented on the COC.

13.2.2.2) Observations, data and calculations are recorded at the time they are made and are identifiable to the specific task.

13.2.2.3) When mistakes occur in records, each mistake is crossed out, not erased, made illegible or deleted, and the correct value entered alongside. All such alterations to records are initialed and dated by the person making the correction. In the case of records stored electronically, equivalent measures are taken to avoid loss or change of original data. When corrections are due to reasons other than transcription errors, the reason for the correction shall be documented [TNI-EL-V1M2-2009-4.13.3.g.ii].

13.2.2.4) Each report or documents issued shall include the name(s), function(s) and signature(s) or equivalent electronic identification of person(s) authorizing the report or documents, and date of issue. Use of computer password unique to each analyst and level of security prevents loss of original data and change of data.

13.3) DATA STORAGE

13.3.1) EEA maintains electronic report files for at least 10 years. The report files are organized alphabetically by client and contain a copy of the report sent to the client, custody information and scheduling information. Report files also include subcontractor reports. The scannable supporting raw data is scanned within six months and stored electronically in the EEA secured server. The non-scannable data (i.e. hardbound logbooks) are stored in a secured offsite storage for a total of 10 years since 10 years is required for Hawaii, Massachusetts, and New York. These files are centrally located and a custodian is assigned to maintain, retrieve, and copy files as needed.

13.3.2) Instrument raw data is stored on each instrument’s computer. Data is backed-up to a network server or an external hard drive (Chromeleon is backed up to the network server and GCMS/LCMS is backed up to an external hard drive. If instruments are direct read and transcribed into notebooks, then the notebooks are stored in the lab until they are scanned and filed.

13.3.3) All raw data is organized by instrument or test, then chronologically. Logbooks such as sample custody or balance calibration are organized chronologically.

13.3.4) Electronic data from LIMS is stored on data tapes.

13.4) DOCUMENT CONTROL

13.4.1) Document Control procedures are implemented that allow for adequate documentation and control of specific documents. These procedures use a unique identification system that allows for tracking, training

documentation, traceability of official copies and the time period the procedure or document was in force. Documents issued to all personnel in the laboratory as part of the Quality System (QS) shall be reviewed and approved for use to authorized personnel prior to use. The list will identify the current revision status to ensure that invalid or obsolete documents are not used. The document control procedures includes that the authorized editions of documents are accessible by the analysts and invalid or obsolete documents are promptly removed from use. QS documents such as SOPs and QM are uniquely identified including the following:

- Date of issue and/or revision ID
- Page numbering
- Total number of pages or markings to signify end of documents.
- Issuing authorities [TNI-EL-V1M2-2009-4.3.3.1][ISO/IEC 17025:2005(E)-4.3.3.1]

13.4.2)
To ensure that the QM and SOPs remained controlled documents, the master SOPs and QM (original official version of the SOP and QM) and copies of the SOP and Quality Manual will be identified through the D4 system. The QA department keeps one hard copy of the approved electronic D4 SOPs, printed on blue security paper, as a backup in case the server crashes or other unforeseen circumstances.

In the event of a conflict or discrepancy between policies, the order of precedence in the D4 document system is as follows unless otherwise noted:

1) Quality Manual and Quality Policies
2) SOPs
3) Other (Work instructions, forms, flow charts, lists, etc.)

13.4.3) The SOPs/QM are distributed through the D4 system and the date of analyst SOP/QM training completion are documented in D4.

13.4.4) Record management system is also implemented for control of laboratory notebooks; instrument logbook; standard logbook; and records for data reduction validation storage and reporting. Laboratory archival system will also be implemented to laboratory books and logbooks.

13.4.5) Notebooks and Logbooks are assigned unique ID numbers for control of laboratory records. Upon completion of the book, the analyst returns the book to their supervisor. A new number is assigned to the newly issued notebook. See Table 13-1 for the laboratory document control system for notebooks and logbooks.

13.4.6) Changes to documents shall be reviewed and approved by the same function that performed the original review unless specifically designated otherwise. The designated personnel shall have access to pertinent background information upon which to base their review and approval. Refer to the current Document Control SOP for detailed procedures.

13.5) DOCUMENT CHANGES TO CONTROLLED DOCUMENTS
13.5.1) All documents and/or changes issued to personnel in the laboratory are reviewed and approved prior to use. SOPs are approved by at least two of the following personnel depending on the type of SOP: Quality Manager, Technical Manager, Lab Director, President. A master list or an equivalent document control procedure identifying the current revision status and distribution of documents in the laboratory are established and are readily available to preclude the use of invalid and/or obsolete documents.

13.5.2) Any changes/alterations to laboratory documents are tracked and properly identified. Amendments are clearly marked, dated and initialed and revised documents are formally re-issued immediately. Any obsolete documents are removed from corresponding binders are archived and stored in a secured place.

13.6) ARCHIVAL SYSTEM
An archival system is implemented for managing and removal of all outdated documentation. Records that are archived are Training Records for personnel no longer with the laboratory and Outdated Quality Manual/SOPs. Only current versions of the Quality Manual/SOPs are retained in the laboratory areas. All outdated versions of the Quality Manual/SOPs are returned to the Quality Manager for archiving. All outdated logbooks/work books are

turned in to the supervisor for scanning and archiving. Please see 13.3.1 for more information. Refer to the current Control of Records SOP for archiving procedures.

13.7) STANDARD OPERATING PROCEDURES (SOP)
13.7.1) Laboratories shall maintain SOPs that accurately reflect all phases of current laboratory activities such as assessing data integrity, corrective actions, and all test methods.

13.7.2) When an amendment to the SOP is needed, such as a minor update to the entire procedure, the laboratory will handwrite the update with initials and date of the person who made the change in the original copy of the SOP. Also, when a minor mistake is found in the SOP, the laboratory will strike the section with one line, date and initials of the person who does the change in the original copy of the SOP. For any of these minor updates, the analyst(s), supervisor and QA will be notified and they will be included in the next update of the SOP.

13.7.3) The following format must be used for all final technical SOPs.

13.7.3.1) Header -
A header must be included in each page of the attachments of SOP. The header must include the SOP reference name or number, the revision number, the date the revision began, page number and total number of pages.

13.7.3.2) Cover Page -
The SOP cover page consists of a summary of the most recent revision information and the signatures of the approving personnel (see section 13.5.1) stating that they approved the SOP including the date that they read and signed the SOP. The approval/effective date is included on the cover page. The effective date is the same date as the approval date.

13.7.3.3) Body
13.7.3.3) 1. Title

13.7.3.3) 2. Scope and Application
A brief description of the types of matrices the method is applicable to as well as the regulatory programs that may be supported by the use of the method. This section is also used to indicate any special training or level of ability required to perform the method.

13.7.3.3) 3. Method Summary
A brief description of the method, simple statement of analytical technique and any pre-treatment steps.

13.7.3.3) 4. Interferences
This section must include any known interferences, as well as potential interferences, particularly for GC/conventional detector methods. It must also include any interferences that may be present as a result of improper sampling procedures, equipment cleaning or analytical technique must be listed here.

13.7.3.3) 5. Safety Considerations -
Specify any known or suspected carcinogens, mutagens, or teratogens among the standards or reagents used. Indicate that the SDS (Safety Data Sheets) are available and where they are located. Each analyst is required to familiarize him/herself with the contents of the SDS before performing the analysis.

Each SOP includes reference to the Laboratory Chemical Hygiene Plan as per OSHA Standard 29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories-Final Rule.

13.7.3.3) 6. Instrumentation/Apparatus -
The instrumentation used, including specific columns employed for GC, LC, or GC/MS and whether or not there is a primary and confirmatory column.

13.7.3.3) 7. Reagents and Standards
The sources of all standards and reagents are listed.

13.7.3.3) 8. Sample Collection, Preservation and Handling -
Indicate bottle type, preservative and volume necessary for analysis. Include holding times for standards.

13.7.3.3) 9. Calibration Procedure -
Detailed preparation instructions for each calibration, LCS or MS/MSD standard must be included. A table must be present to show how daily calibration and control standard solutions are prepared from working stock standards. Calibration frequency must be specified. Expiration information must be included for each type of standard prepared.

13.7.3.3) 10. Analytical Procedure -
Since the purpose of a SOP is to provide clear instruction to avoid loss of key information from one analyst to another, it is critical that this section be detailed enough that any analyst can anticipate and take appropriate corrective action in the event that a problem should arise.

13.7.3.3) 11. Quality Control Requirements -
This section must describe the components, concentrations, frequency, and acceptance criteria for the LCS or MS/MSD samples, as well as any other method specific QC requirements, such as tuning, blanks, or calibration requirements.

13.7.3.3) 12. Calculations -
All relevant calculations must be included, such as how instrument response relates to concentration, the calculation of response factors, etc.

13.7.3.3) 13. Method Performance -
The results of the initial method validation process must be included. The following information must be present:

■ Statistically calculated MDLs (40 CFR Part 136 Appendix B),

■ MDL spike levels, EEA's MRLs, Accuracy for each compound (mean recovery of each compound determined from analysis of a minimum of 4 replicates spiked at 1-4x MRL (TNI-EL-V1M4-2009-1.6.2.2.a) when method does not specify the spike level for the IDC study), precision data (RSD of the 4 replicates).

13.7.3.3) 14. References
A list of method references, such as the relevant 500 or 600 series method, the SW-846 methods (including revision number and date), or Standard Methods must be provided.

13.7.3.3) 15. Deviations from Referenced Methodology -
A review of the referenced method is carefully made and EEA will specify any areas in which our method does not conform to referenced method requirements. If any such deviations are noted, an explanation as to what alternative was used and why is described. There are two basic types of method modifications: (1) those that are hardware related and (2) those that are policy or procedural modifications.

13.7.3.3) 16. Method Detection Limit
Laboratory procedures of conducting MDL studies and a copy of the initial MDL study will be included.

13.7.3.3) 17. Demonstration of Capability -
Laboratory procedures of conducting DOC studies and a copy of the initial DOC study will be included.

13.7.3.3) 18. Definitions -
Definitions will be referred to the Quality Manual since the Quality Manual includes a glossary section that defines all the terms used by the laboratory.

13.7.3.3) 19. Pollution Prevention -
Potential threat of the standards and reagents to the environment is addressed in the SOP.

13.7.3.3) 20. Waste Management
In addition to the hazardous waste protocol discussed in the SOP, the following references where the information can be find are also included:

• The Lab Hazwaste Management Plan

• The federal hazardous waste management regulations –Resources Conservation and Recovery Act (RCRA)-Title 40 of the Code of Federal Regulations, Parts 260 through 270 (40 CFR 260-270)

• CA Hazardous Waste Control Law (HWCL)-CCR Title 22 where 40 CFR was duplicated into CCR Title 22

13.7.3.3) 21. Revisions
Revisions are discussed including the dates when revisions are made and the appropriate section numbers where the revisions could be found.

13.7.3.3) 22. Attachments
A copy of the bench sheet used for the analysis and where applicable, an example chromatogram of the standards, calculations and any other relevant attachments.

14) DATA REDUCTION, VALIDATION, AND REPORTING
The process of transforming raw analytical data into a finished report involves steps which are generally grouped into the categories of data reduction, data validation, and reporting. It involves mathematical modeling of the standard calibration curves, statistical analysis of the acquired data, calculations to account for preparation steps and dilution, verification of adherence to quality assurance procedures, and the generation of hardcopy output.

14.1) DATA REDUCTION
At EEA the analyst performing an analysis has the primary responsibility for reducing raw data. This process consists of converting raw data values into final, reportable values by comparing individual sample results to those obtained for calibration purposes and then accounting for any dilution or concentration procedures.

The extent to which raw data from the instrument needs to be mathematically processed varies depending on the analysis. For the following methods finished data is directly read from the instrument; pH, conductivity, spectrophotometric/colorimetric measurements (i.e.: Chemical Oxygen Demand (COD), Chromium VI, phenols, phosphorus, Methylene Blue Activated Substances (MBAS, or commonly known as surfactants), odor and presence/absence bacteriological tests. Other methods require mathematical calculations and in some cases, such as for pesticides by GC, qualitative assessment of actual presence.

Below is an outline of the data reduction techniques used by technology.

14.1.1) GC AND GC/MS
A data reduction software system is used to calculate target compound concentrations. These concentrations are calculated by multiplying the average response factor for the compound by the area count as determined by the instrument. Average response factors are determined through linear regression during initial calibration, and may only be used if the correlation criteria have been met. This assumes linearity of the calibration curve through the origin. If linearity is not established then a second order fit (logarithmic regression) may be used to determine response factors. Another alternative is to use single point calibration, which matches the area counts from a single calibration point to the area counts of the sample, upon which a sample concentration is determined. Single point calibration is rarely used.

In all cases data is reduced by the data reduction software. Programs for linear, logarithmic and single point calibrations are available on command. Sample dilution factors are entered into the data reduction software prior to analysis and calculated into the final result.

14.1.2) GC/MS
Reportable results are provided by the data reduction software for GC/MS analyses using linear average response factors, or 2nd order fits, as described, except for diluted samples. For diluted samples the result from the system is multiplied by the dilution factor. Reporting limits are adjusted manually as well.

All regressions and calibration calculations are performed by the system software.

14.1.3) METALS
ICP & ICPMS results are processed and transferred directly into the LIMS system. Dilution and calibration information is entered and processed by the ICP software prior to data transfer.

All other results are reportable directly off the system.

14.1.4) HPLC / IC / SPECTROPHOTOMETRIC / POTENTIOMETRIC
All results are reportable directly off the system software or directly read off instrument. The cell constant for the conductivity meter is 1. All samples and standards are allowed to come to room temperature prior to analysis. Temperature correction is not needed.

14.1.5) MICRIOBIOLOGY
The ability of an individual analyst to count colonies accurately shall be verified at least once per month, by having two or more analysts count colonies from the same plate on one positive sample. Counts must be within 10%

difference to be acceptable [TNI-EL-V1M5-2009-1.7.3.2].

14.2) DATA VALIDATION
Calculations and data transfers are subject to appropriate checks in a systematic manner [TNI-EL-V1M2-2009-5.4.7.1][ISO/IEC 17025:2005(E)-5.4.7.1].
Upon completion of each analytical run, the analyst checks the raw data and QC to determine if the run is acceptable for submission. Data are entered into the LIMS either manually or by electronic data upload using files generated by data acquisition programs attached to instruments, which are then imported using the Data Capture Upload program (DCU) in STARLIMS. The data package is submitted to the Supervisor or Peer Analyst for review. The submitted package contains all relevant documentation such as chromatograms, instrument run logs, digestion logs, information about calibration or second source standards and reagents, other printed pages from the instruments, result summary sheets, and/or a checklist. The Reviewer is responsible for verifying the validity of the data by determining if all quality control parameters have been analyzed and are within method acceptance limits, checking calculations, assessing the acceptability of chromatography, and addressing any inconsistencies in the data with the analyst. Deviations from the method must be documented by the analyst and/or reviewer. The documentation must explain the deviation, any flags associated with the deviation and the acceptability of the data. The review includes a perusal of the supporting documentation to ensure that the documentation is present and is complete. Before the Reviewer or Validator approves the data in LIMS, data in the package is checked against the LIMS to ensure that there are no transcription errors, retests have been properly initiated, the appropriate flags have been added, and any comments regarding data/sample integrity have been added at the run/sample level.

When all results and calculations for a folder have been approved, an e-mail is sent to the Analytical Services Manager stating that the report has been released. The report components are merged and the entire package is reviewed by the Analytical Services Manager on-line. The electronic signature of the Analytical Services Manager is added to the cover page before the report is released to the client.

Any logbooks such as sample preparation, instrument maintenance, calibration, internal custody, and disposal are reviewed by the supervisor/manager of that group. Initials and date of review are written on the final page reviewed. The review will focus on completeness, accuracy, trends, opportunities for improvement, and compliance.

14.3) DATA REVIEW POLICY/CORRELATION OF RESULTS
All analytical data must be reviewed by a peer analyst qualified in that analysis or the group supervisor. Supervisors are ultimately responsible for the quality of reported results. Data review includes the following:

14.3.1) Checking all QC data against the QC criteria.

14.3.2) All the sample calculations must be checked. Samples which are spot checked must be marked by the reviewing analyst.

14.3.3) The analytical run sheet must be signed by the primary analyst and the reviewing peer analyst. Changes to records must be signed and initialed by responsible staff [TNI-EL-V1M2-2009-4.13.2.3][ISO/IEC 17025:2005(E)-4.13.2.3].

14.3.4) All secondary reviewers or Supervisors must check all data sheets. For inorganics and metals they must verify data entry for those samples by checking the database. The secondary reviewer or Supervisor must initial each run sheet they review. For organics, the secondary reviewer or Supervisor must cross check all reports for transcription error from bench sheets.

14.3.5) All Supervisors or designee must validate the data reported into the computer system. The reports are then printed and reviewed by the Analytical Services Manager.

14.3.6) As part of the annual internal audits, the Quality Manager or QA staff must spot check data sheets to insure that the peer reviews are being performed and that review process is traceable to the peer review.

14.3.7) Correlation of results for different characteristics of a sample (example Total Phosphate ≥ Orthophosphate or TKN ≥ NH_3 [TNI-EL-V1M2-2009-5.9.1.e][ISO/IEC 17025:2005(E)-5.9.1.e]

14.4) DATA REPORTING
To meet the TNI report requirement, the laboratory provides the following information in the final test report:

14.4.1) A Title

14.4.2) Name/address of laboratory

14.4.3) Phone number and name of contact person

14.4.4) Unique identification of the certificate or report and unique identification of each page, and the total number of pages

14.4.5) Name and address of client, where appropriate and project name if applicable

14.4.6) Description and unambiguous identification of the tested sample including the client identification code

14.4.7) Identification of results derived from samples that did not meet TNI acceptance requirements such as improper container, holding time, or temperature [TNI-EL-V1M2- 2009-5.10.3][ISO/IEC 17025:2005(E)-5.10.3].

14.4.8) Date of receipt of sample, date and time of sample collection, date(s) of performance test, and time of sample preparation and/or analysis if the required holding time for either activity is less than or equal to 72 hours [TNI-EL-V1M2-2009-5.10.2][ISO/IEC 17025:2005(E)-5.10.2].

14.4.9) Identification of the test method used, or unambiguous description of any non-standard method used.

14.4.10) Qualification of numerical results with “E1-E7” flags or appropriate data flags for values outside the working range.

14.4.11) Any deviations from, additions to or exclusions from the test method, and any other information relevant to a specific test, such as environmental conditions including the use of relevant data qualifiers and their meaning.

14.4.12) Measurement, examinations and derived results and identification of any failures (such as failed quality control). Radiochemistry results shall be reported with associated measurement uncertainty [TNI-EL-V1M6-2009-1.7.2.4.b].

14.4.13) Identification whether the data are calculated on dry weight or wet weight, reporting units and when required by method a statement of the estimated uncertainty of the test result.

14.4.14) Signature and title of the person(s) accepting responsibility for the content of the report and date of issue.

14.4.15) Clear identification of all data provided by outside sources (subcontracted laboratories, clients, Non-NELAP accredited work, etc.)

14.4.16) Clear indication of numerical results with values outside of quantitation limits. Test results provided by subcontracted laboratories are identified by subcontractor name or applicable accreditation number.

Opinions and interpretation are not allowed. Comments are based on Data Flags and Business Rules. When the validation steps are completed, and the managers and supervisors have keyed in their initials in the appropriate LIMS field to reflect this, the report number is automatically transferred to an electronic listing in LIMS. Reports on this list are printed out daily. The reports are reviewed for correctness against the data in LIMS and signed off by the project Analytical Services Manager prior to being copied for the files and delivery to the client. An example of an analysis report form is shown in Figure 14-1. A sample of a QC Report is shown in Figure 14-3. After the report is issued to the client, the laboratory reports remain unchanged. The report shall not be reproduced except in full, without the written approval of the laboratory [TNI-EL-V1M2-2009-5.10.2] [ISO/IEC 17025:2005(E)-5.10.2]. After issue of report, material amendments to the test report is done in the form of further document or data transfer including the statement “Report revised, replaces the original report”. A unique e-file ID is assigned to the revised report. For EEA revised report cover page, the report date replaces the original test report and note in the comment, or in the comment section of the report, the reason for the change. Also, amendments to the formal report must meet all the TNI and ISO 17025 reporting requirements. The laboratory notifies clients in writing of any event such as the identification of defective measurement or test equipment that casts doubt on the validity of results given in any test report or amendment to a report [TNI-EL-V1M2-2009-4.14.5]. The laboratory also ensures that the TNI reporting requirements are met for test results transmitted by telephone, telex, facsimile or other

electronic or electromagnetic means and that all reasonable steps taken to preserve client confidentiality.

Reports containing the ANAB symbol are not used in a misleading manner. Final laboratory report includes a statement in the cover page "Accredited in accordance with TNI 2009 and ISO/IEC 17025:2005. Laboratory certifies that the test results meet all TNI 2009 and ISO/IEC 17025:2005 requirements unless noted under the individual analysis. Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable. Test results relate only to the sample(s) tested. This report shall not be reproduced except in full, without the written approval of the laboratory." The effective date of the final laboratory statement is 4/22/14.

If Client requires monthly reports of data that does not include all items listed in 14.4, the laboratory is still required to provide all information in standard TNI report format required by the Client for use in preparing such regulatory reports [TNI-EL-V1M2-2009-5.10.1] [ISO/IEC 17025:2005(E)-5.10.1].

Copies of all client reports are filed electronically in a centralized server by year and client name. Scanned files are maintained for 10 years.

14.5) ELECTRONIC TRANSMISSION OF RESULTS
In the case of transmission of environmental test results by telephone, facsimile or other electronic means, the laboratory ensures preservation of Client confidentiality by attaching a cover page that includes the following statement:

"This transmission and/or attachments contain information which are confidential and/or privileged. The information is intended for the addressee only. If you are not the intended recipient, any dissemination, distribution or copying of this communication is prohibited. If you have received this communication in error, please notify and return the original communication to the sender." [TNI-EL-V1M2-2009-5.10.5, 5.4.7.2.b] [ISO/IEC 17025:2005(E)-5.10.5, 5.4.7.2b].

14.6) GOOD AUTOMATED LABORATORY PRACTICES (GALP)
The laboratory assures that all requirements of the TNI and ISO 17025 standards are complied with where computers or automated equipment are used for the acquisition, capture, processing, manipulation, recording, reporting, storage or retrieval of test data.

The laboratory ensures that the computer software is documented and in sufficient detail and is suitably validated as being adequate for use. To protect the integrity of data entry or capture, data storage, data transmission and data processing, the laboratory establishes and implements procedures in compliance to good automated laboratory practices. In addition, appropriate procedures are established for computer and automated equipment to ensure proper functioning and are provided with the environmental and operating conditions necessary to maintain the integrity of calibration and test data. Also the laboratory establishes and implements appropriate procedures for the maintenance of security of data including the prevention of unauthorized access to and the unauthorized amendment of computer records. The laboratory LIMS system provides several levels of security. The first level is the entry of a password to initially log on to the computer, then the person must be designated as a qualified user of STARLIMS. Additionally, the department to which a person is assigned governs accesses to the various functions of the system. The system also provides for read – only access to results to further protect the data from unauthorized modification or deletion.

14.7) STATE SPECIFIC REPORTING REQUIREMENTS

Massachusetts – All analytes that are reported to the state of Massachusetts must have a means to distinguish between the analytes for which EEA is certified, and the analytes for which EEA is not certified. To meet this requirement, EEA only sends final reports to the Massachusetts Department of Environmental Protection the analytes for which EEA is certified in Massachusetts. Please see section 3.9 for more information about the certifications that EEA holds.

14.8) MCL NOTIFICATIONS
At approximately 10pm each night the Laboratory's STARLIMS software runs a report called a "Hits Report". This report is sent to all Analytical Services Managers. Part of the information in this report is a notification of any hits that exceed MCL levels for all client samples analyzed and approved since the last Hits Report. The Analytical Services Manager is responsible for notifying their clients of any exceedance within 24 hours of obtaining valid data. Since the report is sent to all Analytical Services Managers, absent ASMs will have their client's data checked by their backups in order to ensure that no notifications are missed.

Please see Section 3.10.9 of this QM for the requirements on notification from subcontract laboratories.

15) CONTROL OF NON-CONFORMING WORK, CORRECTIVE ACTION, AND PREVENTIVE MEASURES

Corrective actions may be required when there is a failure to meet quality control acceptance criteria, or when internal or external audit samples are not acceptable. Quality control measures for which control limits are established and maintained include: LCS, duplicates, method blanks, surrogate recoveries, MS/MSD, MRLs, calibrations, continuing calibrations and sensitivity checks. Refer to the current Non-Conforming Work and Corrective Action SOP for Non-conforming work procedures.

15.1) CORRECTIVE ACTION PROCEDURES, BY METHOD

Specific corrective actions on a method-by-method basis can be found in Table 15-1. Corrective action will be initiated as a result of findings from internal or external audits, not acceptable results from performance samples, large variation from split samples and inadequate quality as determined by data validation review.

15.2) CORRECTIVE ACTION PROCEDURES, ROOT CAUSE, PREVENTIVE MEASURES, DATA QUALIFIERS, AND REPORT COMMENTS

15.2.1) Selection and Implementation of Corrective Actions

Systematic failures to meet criteria of the LCS, surrogate spikes, internal standards, continuing calibration standards, holding time exceedance, improperly preserved samples, method blank contamination are QC failures that trigger the generation of corrective actions to identify the root cause of the problem. Root causes of the problem are documented in the Corrective Action Report (CAR) on eJIRA.

For instance, when a matrix spike failure occurs during trace metals analysis, the analyst first checks the %RSD for the multiple measurements to see if the %RSD is less than 20%. Then the calibration verification will be checked along the calibration blank, preparation blank, and the second source LCS standard recovery. The standards and reagents preparation and expiration dates are reviewed. Spiking solutions are verified to ensure that here are no errors made in calculations and in spiking. If the MS/MSD recoveries are outside the internal QC limits and all the associated QCs for the batch are acceptable, the RPD for MS/MSD recoveries must be checked. If the RPD is found to be within the 20% criteria, the unacceptable recoveries are annotated in the report as suspect due to matrix effect. If the concentration of the background is much higher than the spiking amount the report will be annotated also. If the RPD is outside the limits, the sample that was spiked is checked visually to see if the sample is homogenous, if the sample is homogenous the batch will be reanalyzed.

15.2.2) Documentation of Corrective Actions

15.2.2.1)
EEA uses two corrective action protocols: Immediate corrective actions/ Technical Corrective Action and Long term corrective actions/ Formal Corrective Action. Corrective action for non-systematic errors or expected random failures is documented on a QIR. A long-term action is designed to eliminate causes of nonconformance and is documented on a CAR form in eJIRA. See the current Non-Conforming Work and Corrective Action SOP for more details on the corrective action process.

15.2.2.2) Results are flagged not only for quality control failures where QIRs have been generated but also for all other QC failures that have impact on the data quality of the result. All results are flagged if data is suspect or QC was not acceptable.

15.2.2.3) Data qualifiers are used by the laboratory in reporting analytical results to flag the user about the data. Some of the qualifiers below were requested by a specific client as required in the Project's Quality Assurance Plan to ensure that the Data Quality Objectives of the project are met.

15.2.2.4) Comments on the results are provided to the clients on the final report for QC nonconformance. In addition, any QC data exceeding QC acceptance criteria are underlined to flag the user about the QC failure and its impact to the data quality of the associated samples in the batch.

15.2.2.5) Depending on the significance of nonconformance, the Client is notified by the Analytical Services Manager and work recalled if necessary [TNI-EL-V1M2-2009-4.9.1.d] [ISO/IEC 17025:2005(E)-4.9.1.d]. The Client is notified immediately for possible re-sampling.

15.2.2.6) Where the identification of nonconformance or departure casts doubts on the laboratory's compliance with

its own policies and procedures, or on its compliance with this Standard, the laboratory shall ensure that the appropriate areas of activity are audited [TNI-EL-V1M2-2009-4.11.5][ISO/IEC 17025:2005(E)-4.11.5].

15.2.3) Monitoring of Corrective Action

15.2.3.1) Corrective actions implemented are monitored if corrective actions are effective to remove problem [TNI-EL-V1M2-2009-4.11.4][ISO/IEC 17025:2005(E)-4.11.4].

15.2.3.2) QA monitors CARs and QIRs for trends and notifies the analyst and supervisor of the need to correct the problem and implement corrective action to prevent the problem from reoccurring.

15.2.4) Preventive Measures

15.2.4.1) CARs require the analyst to document preventive measures to ensure that the problems will not re-occur [TNI-EL-V1M2-2009-4.12.1][ISO/IEC 17025:2005(E)-4.12.1].

15.2.4.2) Preventive action, rather than corrective action, aims at minimizing or eliminating inferior data quality or other non-conformance through scheduled maintenance and review, before the non-conformance occurs. Preventive action is generated when circumstances are identified where a quality failure or non-conformance is a possibility or where an opportunity is identified to strengthen the quality system.

15.2.4.3) Preventive action includes, but is not limited to, review of QC data to identify quality trends, regularly scheduled staff quality meetings, annual managerial reviews, running a new LIMS in tandem with the old system to assure at least one working system, and other actions taken to prevent problems.

15.2.4.4) All staff recommends preventive action procedures to the Quality Manager and management is responsible for implementing preventive action.

15.2.4.5) A preventive action record form is generated when an opportunity for improvement arises to record preventive action, record actions generated, and ensure actions are effective. See Figure 15-2 for the Preventive Action Form which is used to document actions required for improvement, name of requestor, responsible personnel to carry out implementation, and estimated completion date.

15.3) ESTABLISHING WARNING/ACTION LIMITS

The incorporation of quality control samples and reference materials into the laboratory quality control program is of little use in maintaining overall analytical quality control unless the laboratory has established acceptance criteria for these samples. Quality control samples falling outside of these criteria serve as flags to signal the production of unacceptable data which must be rerun or reported as suspect data if re-running is not an option due to expired holding times or lack of sample volume.

15.3.1) Approach to Setting Limits

For methods that do not specify acceptance limits, the lab establishes limits through control charts. These limits must be updated once a year. These limits are based upon historical recoveries of LCS samples associated with specific matrices (or where LCS samples are not utilized, they are based on spike recoveries or duplicate limits for matrix specific samples).

For those cases where insufficient historical information exists to set statistically meaningful LCS or matrix specific limits, EEA has set limits based on the expected performance of the analysis until historical limits can be calculated. These limits are then associated with specific control requirements to determine out of control events.

15.3.2) Documentation of Limits

15.3.2.1) Reagent Blanks - Reagent blank values must remain lower than the reported MRL (some methods require ½ or 1/3 MRL) for each analytical procedure. If an analyst notices an increase in the reagent blank which is beginning to approach this limit, the source of contamination must be investigated before further analyses are performed.

15.3.2.2) External Reference Samples - Recoveries on external reference samples must fall within the acceptance limits provided with the true values.

15.3.2.3) Internal and Surrogate Standards - As specified by the methods, internal standards are run with each of the calibration standards and the area counts are recorded on the same form as the response factors. Any standard that has an internal standard area count beyond ±50% of the average internal standard area count for all initial calibration standards must be rerun to meet these criteria. Any sample with an internal standard count beyond ±50% (or as stated in the particular SOP) of the average internal standard counts for the ICAL standards must be

rerun. Surrogate standards must meet the recovery limits specified in the analytical method or established historical limits, which are updated periodically.

15.3.2.4) Blind Check Samples - The results of blind check sample analyses must fall within the acceptance criteria provided with the samples.

15.3.3) LCS Control Limits

EEA uses method acceptance limits for LCS limits in water matrix to assess analytical control. All analysts have received a copy of these acceptance limits and must ensure that their LCS sample results fall within the stated acceptable ranges. If specific control limits have not been provided for matrix spikes or duplicates, LCS criteria are used until sufficient data is generated to calculate historical limits for the MS/MSD samples for a particular matrix. Any samples associated with unacceptable LCS samples must be re-run unless other criteria are available to allow acceptance of the data without qualification. If a sample cannot be rerun due to exceeded holding times or lack of sufficient sample volume or weight, then the data must be qualified as estimated when reported to the client.

15.4) CONTROL CHARTS

EEA collects LCS and MS/MSD data in the LIMS computer system for generation of control chart data and limits. Data can be downloaded and plotted on charts to determine trends, which may indicate problems with the analysis, or out of control events.

EEA utilizes a Shewhart mean chart modified to percent recovery to monitor laboratory control sample bias. This procedure is referenced in the EPA Handbook for Analytical Quality Control in Water and Wastewater Laboratories (EPA-600/4-79-019), March 1979, on pages 6-2 to 6-6. Precision is monitored with control charts, but is compared to absolute limits established by the lab based on method specified limits.

Control charts for LCS and MS data are generated with the LIMS software periodically based on a maximum of 30 data points. The control chart limits are re-calculated at least annually. If analysis parameters are changed significantly or method modifications are performed, control chart limits may be re-calculated more frequently. QA reviews the limits and charts to determine whether any of the data is out-of-control. If the control charts indicate an out-of-control event, appropriate corrective action is immediately taken to bring the analysis back into control. An example of the Shewhart percentage recovery control chart is presented in Figure 15-4.

15.5) PROCEDURES FOR DETERMINING AND REPORTING OUT-OF-CONTROL ANALYSES

15.5.1) Defining an Out-of-Control Analysis

An analysis is out-of-control whenever a quality control sample or parameter falls outside of acceptance limits. Quality control parameters are evaluated for their acceptability on a daily basis according to established acceptance limits and are also monitored with control charts to detect trends in variability, which are indicative of a shift in the methodology due to analytical error.

15.5.1.1) Criteria Used

15.5.1.1) 1. Daily Quality Controls

The quality control parameters utilized by EEA were detailed in Section 11.1. All of these controls are evaluated on a daily basis and must pass the criteria detailed in this section. Each analyst is familiar with the criteria for his/her analyses and is responsible for insuring that all quality control parameters on the analytical run are acceptable. An analyst cannot enter his/her data into the laboratory computer until the data is reviewed and approved by an appropriately trained peer or supervisor. In addition, LCS and MS/MSD data are also entered into the computer and linked to specific batches.

LCS and MS/MSD results must fall within given acceptance limits. These limits are provided for water matrix. Reagent blanks must remain below the MRL established for each parameter. External reference samples must fall within the acceptance criteria provided with the true values. Internal and surrogate standards must meet the recoveries specified in the analytical procedure, if historical control chart based information is not available. A new working standard must be checked against the old reference standard to verify its accuracy and must fall within 10% of its true value. If this agreement is not met, a referee standard must be run. All standards must be traceable to primary standards.

Instrument calibrations must fall within acceptance criteria in order for runs to proceed. Table 11-4 summarizes the instrument's initial calibration acceptance criteria for each analysis.

In addition to monitoring daily QC parameters for acceptability, control charts are utilized and interpreted as described in Section 15.4.

15.5.1.1) 2. Approaches to Control Chart Interpretation

The control charts generated by the LIMS System flags the analyst that there is a potential problem whenever

seven or more consecutive points fall above or below the mean.

If the above situation is observed, the cause of the shift in mean or increased variability must be investigated, corrected, and documented prior to analyzing any more samples.

15.5.2) Responding to an Out-of-Control Event
It is important to have an operational system within EEA for recognizing out-of-control events as soon as they occur so the appropriate action can be taken to bring the analysis back into control. This will insure that no data gets reported from a period when the analysis was out-of-control.

15.5.2.1) Roles and Responsibilities
The analyst has primary responsibility for verifying that all daily QC parameters fall within the acceptance limits before submitting the data for review. Review at the analyst level enables most errors to be caught immediately and prevents reporting delays. Following the analyst's verification, the data is reviewed by an appropriately trained peer analyst or supervisor. All of the quality control parameters are reviewed for compliance with the acceptance criteria and the calculations on the raw data forms are checked for errors in data manipulation. If the reviewer notices a problem, the analyst is notified immediately and corrective action is taken. All samples associated with unacceptable quality control samples are rerun unless there is insufficient sample, in which case the client is notified by the Client Services group [TNI-EL-V1M2-2009-4.9.1][ISO/IEC 17025:2005(E)-4.9.1]. Every out of control event must be documented by filing a Quality Investigation Report (QIR).

The check of daily QC parameters indicates immediate problems with the data, but trends are only evident on the control charts. Both the analyst and the Group Supervisor are responsible for reviewing either the data or control charts for pattern to see if any of the out-of-control events summarized in Section 15.5.1 have occurred. If so, the analyst must initiate corrective action before continuing with the analysis.

15.5.2.2) Defining Suspect Samples
Sample data is considered suspect if associated with unacceptable MS/MSD and LCS samples or part of an analytical run that had an unacceptable calibration or an external reference sample was out of an expected range. GC/MS data is considered suspect if the internal or surrogate standards were not recovered within the acceptable range. Sample data is also considered suspect if the reagent blank has substantially increased beyond normal range and exceeds any of the compound MRL's.

15.5.2.3) Ensuring that Suspect Data Are Not Reported
It is the ultimate responsibility of the Group Leader to ensure that suspect data are not reported. The laboratory procedures currently require that analysts may not enter their final data into the computer until their analytical data form and accompanying QC parameters have been reviewed and approved by an appropriately trained peer or supervisor. The QA Group performs periodic system audits to ensure that this procedure is working properly and prepares reports to lab management based on these audits.

15.5.2.4) Corrective Action
15.5.2.4) 1. If the calibration fails, the analyst must determine whether the problem lies with the standard, the reagents, or an instrument malfunctions. This is usually determined by reviewing all of the calibration QC parameters and determining which specific parameters do not meet the criteria. For example: 1) the regression statistics and recalculated standards look fine, 2) there was little drift during the run, 3) the peaks appear satisfactory, 4) the reagent blank is low, but 5) the external reference sample was out of range, it is likely that the problem lies with the integrity of the standard used to make up the working standards and a new stock standard must be prepared.

15.5.2.4) 2. If calibration appears acceptable but some of the duplicate and spiked samples are unacceptable, the analyst must determine whether there is a matrix problem interfering with the analysis or the preparatory digestion. If all of the unacceptable duplicates and spikes occur on a specific type of matrix, this is good evidence that there is a matrix interference problem. When a preparatory digestion is part of the procedure, the problem can be isolated to the digestion or the instrumental analysis by comparing the LCS, which was carried through the digestion to a LCS sample analyzed without digestion. If a matrix problem is indicated, the analyst must determine the most appropriate procedure for alleviating the interference such as diluting the sample, using standard additions, performing the analysis at a different wavelength, using a different GC column, or modifying the digestion procedure.

15.5.2.4) 3. If an unacceptable result is obtained on a blind check sample, the problem must be isolated. To maintain the blind nature of the samples, the run containing the blind check sample is reviewed by the QA Group to determine if any of the quality control parameters were unacceptable or if the sample was run outside the optimum range of the calibration. If no apparent cause of error is found, a second check sample is submitted to determine whether the error occurred during preparation of the blind check sample.

15.5.2.4) 4. If an out-of-control event is indicated by a shift or trend on a control chart, the following diagnostic strategy will be applied:

15.5.2.4) 4.1. A shift in the mean of the percentage recovery chart could be caused by incorrect preparation of a standard or a reagent, contamination of the sample, incorrect instrument calibration, instrument component deterioration analyst error, dirty pipettes preventing proper drainage, or other preparatory steps.

15.5.2.4) 4.2. A trend of the mean upward could be caused by deterioration of the standard or the reagents or a change in the extraction efficiency

15.5.2.4) 4.3. A trend of the mean downward could be caused by concentration of the standard due to evaporation, deterioration of reagents, and a change in the extraction efficiency or instrument component failure

15.5.2.4) 4.4. Increased variability could be caused by switching to a different analyst, deviation from the procedure, variable extraction efficiencies

15.5.2.4) 4.5. A shift in the mean or increased variability can sometimes be caused by a sample load of an unusual matrix. If this is determined to be the cause of the problem, the analysis will not be considered out-of-control but the situation will be documented.

16) PERFORMANCE AND SYSTEM AUDITS/MANAGEMENT REVIEW

The Quality Manager at EEA is not directly involved in the production of analytical data. The QA department is responsible for an ongoing program of internal system audits and performance evaluation samples, and for coordinating all external audits and PT samples. In addition, the QA department is responsible for maintaining state and agency certifications.

16.1) INTERNAL AUDITS

The audits are carried out by the Quality Manager or designee(s) who will be independent of the activity to be audited. Also, to develop a proactive program for the detection of improper, unethical or illegal actions, the Quality Manager or designee, during the internal audit procedure, includes the auditing of any improper, unethical or illegal action committed by the analyst or supervisor.

16.1.1) Annual and Periodical Internal Audits

16.1.1.1) The laboratory Quality Assurance Group conducts an annual lab internal audit to verify that its operations continue to comply with the requirements of the laboratory’s quality system as per TNI-EL-V1M2-2009-4.14.1 and ISO/IEC 17025:2005(E)-4.14.1.

16.1.1.2) The laboratory, in accordance with a predetermined schedule and procedure, conducts internal audits, at least annually, of the activities to verify that the operations continue to comply with the requirements of the quality systems of TNI and ISO 17025 standards. The internal audit program addresses all elements of the quality system, including environmental testing and/or calibration activities. All management elements and lab practices are witnessed using
the ANAB ISO 17025 checklist to ensure compliance with ISO 17025. Results of the management internal audits are recorded in the ANAB ISO 17025 checklist. Compliance to Technical Elements are determined by
witnessing methods by each Technology.The Quality Manager plans and organizes audits as required by the schedule and requested by management. Such audits are carried out by the Quality Manager and trained QA staff who are independent of the activity to be audited. Personnel are trained not to audit their own activities except when it can be demonstrated that an effective audit will be carried out [TNI-EL-V1M2-2009-4.14.1][ISO/IEC 17025:2005(E)-4.14.1].

16.1.1.3) When audit findings cast doubt on the effectiveness of the operations or on the correctness or validity of the laboratory’s environmental test or calibration results, the laboratory takes timely corrective action, and notifies the clients in writing when the investigations show that the laboratory results are affected. The laboratory notifies the client promptly, in writing of any event such as the identification of defective measuring or test equipment that casts doubt on the validity of the results given in any test report or test certificate or amendment to a report or certificate [TNI-EL-V1M2- 2009-4.14.2][ISO/IEC 17025:2005(E)-4.14.2].

16.1.1.4) The area of activity audited, the audit findings, and corrective actions that arise from them are recorded on the internal audit plan and findings recorded in the CAR form [TNI-EL-V1M2-2009-4.14.3][ISO/IEC

17025:2005(E)-4.14.3]. The laboratory management ensures that these actions are discharge within the agreed time frame as indicated in the audit finding documentation. Corrective actions are required within 30-days after findings have been reported to the Technical Manager.

16.1.1.5) Follow up audit activities of the laboratory are conducted in 3 months to verify and record the implementation and effectiveness of the corrective action taken [TNI-EL-V1M2-2009-4.14.4][ISO/IEC 17025:2005(E)-4.14.4].

16.1.2) Data Package Reviews

16.1.2.1) As part of the annual internal audit, data package review is conducted annually by the Quality Manager or designee. At the start of the audit program, PT results obtained by using the drinking water, wastewater, hazardous waste methods are evaluated in order to have an objective assessment on the quality of the data generated by the lab. Annually several analytical methods i.e. at least one representative technology method from Wet Chem, Metals, Rad, GC, HPLC, GCMS, Asbestos and Microbiology are selected either from PT or client data reports for data package reviews. The laboratory ensures that at the end of the year, a representative method from each TNI list of technology for drinking water, wastewater, and hazardous waste analysis have been reviewed. Compliance with all required QC is evaluated. A data package review checklist is used to serve as guidelines during the data package review. A report on the results of the data package review is submitted to the supervisors after the data package review for corrective actions.

16.1.2.2) In addition, a response to the findings and appropriate corrective action is implemented by the supervisors to ensure continuous compliance to all method requirements. Also, to develop a proactive program for the detection of improper, unethical or illegal actions, the Quality Manager or designee during the data package review includes the detection of any potential improper, unethical or illegal action by any of the lab personnel. The data integrity checklist from Arizona is used as a guideline for reviewing data packages.

16.2) EXTERNAL AUDITS

16.2.1) External System audits are performed by outside agencies such as the California ELAP, ORELAP, ANAB and by other state agencies where EEA is certified.

16.2.2) External audits are also conducted by the State of Arizona every 1-2 years, and clients. All other TNI states recognize ORELAP on-site assessment in accordance to TNI secondary accreditation program. All corrective action reports audit findings and audit responses are retained by the laboratory for a minimum of 10 years.

16.3) PERFORMANCE AUDITS

PT samples are used to provide a direct evaluation of the ability of the analytical systems to generate data that is consistent with the laboratories' stated objectives for accuracy and precision. EEA analyzes internal PT samples as part of the ongoing QA program, while external PT samples are analyzed as part of the certification and approval process for various state and federal agencies, as well as for other organizations.

16.3.1) Internal Proficiency Testing Samples/Internal Check Sample Program

Internal PT Program is conducted as part of the corrective action process for any PT reported as unacceptable and evaluated by the PT provider as “check for error” or did not pass the PT provider’s warning limits. Internal QC samples are also provided as needed as part of the analyst’s initial demonstration of capability. The QA group maintains a logbook of all blind PT samples for traceability of the true and reported values. A LIMS report is generated for each QC sample logged in the LIMS system. Problem areas are reviewed as soon as they surface; the probable cause is determined as expeditiously as possible and corrective action implemented. If a severe problem with the analysis is evident, the analysis is halted until the cause is found and corrected.

16.3.2) External Proficiency Testing (PT) Samples

16.3.2.1) External Proficiency Testing (PT) samples are analyzed twice a year as part of the NELAP accreditation and approval process for various state and federal agencies.

16.3.2.2) Blind PT samples are procured from NIST/TNI/ ISO 17025 Approved PT Providers to include the following samples:

- Semi-annual Drinking Water PT Samples (WS series) Organic and Inorganic Samples, Coliform Microbe, HPC, and source water E.Coli
- Radiochemistry Gross Alpha, Beta , Radium 228 and Uranium PT samples
- Annual NPDES/DMR PT sample as required by EPA.
- Semi-annual Asbestos PT Samples
- Semi-annual Wastewater PT Samples (WP series)/NPDES Organic and Inorganic PT samples/Hazardous Waste (Aqueous matrices)

If an ISO/IEC 17043 compliant commercial PT provider is not used, an approved ANAB form 2040 will be on file.

16.3.3) Proficiency Testing Protocol

16.3.3.1) Frequency

16.3.3.1) 1. The laboratory participates in the PT program of a NIST approved PT provider twice in each calendar year.

16.3.3.1) 2. The laboratory enrolls and participates in a proficiency-testing program (PT) for each analyte or interdependent analyte group using all routine drinking water methods. When new analytes are added to the certification, 2 successful PT studies must be performed at least "30 (for MA)" calendar days apart from closing date of one study to the shipment of another study for the same field of proficiency testing, at least 15 calendar days between the analysis dates of successive PT samples for the same accreditation, and will be completed within 18 months from the date the additional groups are added on the Laboratory Application. [TNI-EL-V1M1-2009-4.1.3].

16.3.3.2) Laboratory Handling

16.3.3.2) 1. As per TNI Standard Volume 1, Module 1, PT samples are managed, analyzed and reported in the same manner as real routine samples by utilizing the same staff, methods as used for routine analysis of that analyte, procedures, equipment, facilities, and frequency of analysis.

16.3.3.2) 2. The laboratory follows the proficiency testing provider's instructions for preparing the proficiency-testing sample dilution (as needed) and analyzes the proficiency-testing sample as if it were a client sample.

16.3.3.2) 3. The laboratory complies with the following prohibitions:

- Performing multiple analyses (replicates, duplicates) which are not normally performed in the course of analysis of routine samples;
- Performing increased frequency of quality control samples or initial and continuing calibrations which are not normally performed in the course of analysis of routine samples;
- Averaging the results of multiple analyses for reporting when not specifically required by the method; or
- Permitting anyone other than bona fide laboratory employees who perform the analyses on a day-to-day basis for the certified laboratory to participate in the generation of data or reporting of results.

16.3.3.2) 4. The laboratory does not:

- Discuss the results of a proficiency testing audit with any other laboratory until after the deadline for receipt of results by the proficiency testing provider;
- Attempt to obtain the assigned value of any proficiency testing sample from the proficiency testing provider.
- Send proficiency testing samples or portions of samples to another laboratory to be tested; or
- Knowingly receive a proficiency-testing sample from another laboratory for analysis and fail to notify the department of the receipt of the other laboratory's sample within five business days of discovery.

16.3.3.2) 5. The laboratory maintains a copy of all proficiency testing records, including analytical worksheets. The proficiency testing records include a copy of the authorized proficiency testing provider report forms used by the laboratory to record proficiency testing results.

16.3.3.2) 6. The laboratory participates in Client/State sponsored PT programs. The director of the laboratory or representatives of the laboratory provides, if needed, an attestation statement stating that the laboratory followed the proficiency testing provider's instructions for preparing the proficiency testing sample and analyzed the proficiency testing sample as if it were a client sample.

16.3.3.3) Not Acceptable PT Results

16.3.3.3) 1. If the laboratory fails a PT sample, a corrective action plan is submitted to CA ELAP, ORELAP, and other states requiring corrective action, such as Nevada, Washington, Mariana Islands, Guam, Virginia, Maryland, West Virginia, and Massachusetts, within 30-days after receipt of PT report.

16.3.3.3) 2. Corrective Action Reports are generated when non-acceptable results are reported. Data reported by the laboratory not within the warning limits and flagged as "check for error" are also investigated to determine the

root cause of the problems. Internal PT samples are provided to the analyst to determine if corrective action implemented was effective to resolve the problem. Acceptable results of the internal PT samples help the analyst to determine if the analysis is in control after the implementation of the corrective action.

16.3.3.3) 3. Make-up PT or supplemental PT samples are also analyzed when the laboratory fails to maintain a record of passing two out of the most recent three PT studies and wishes to re-establish its history of successful performance. Analysis dates of make up PT studies must be at least 15 calendar days between analysis date. Since some states, such as Massachusetts requires at least 30-days apart, thus the Lab adopts the "30-days apart" requirement for Make-up samples from the closing date of one study to the shipment date of another study.

16.3.3.4) Reporting

16.3.3.4) 1. The laboratory analyzes and reports the results of the proficiency-testing test by the deadline set by the proficiency-testing provider.

16.3.3.4) 2. When the PT falls below the range of the analytical method, the laboratory reports "<MRL."

16.3.3.4) 3. The laboratory reports the results of the proficiency testing test by the procedure specified by the proficiency-testing provider.

16.3.3.4) 4. The laboratory notifies the approving states of the authorized proficiency testing program or programs in which it has enrolled for each analyte or interdependent analyte group.

16.3.3.4) 5. The laboratory directs the proficiency-testing provider to send, either in hard copy or electronically, a copy of each evaluation of the laboratory's proficiency testing audit results to the state requiring the PT results. The laboratory allows the proficiency-testing provider to release all information necessary for the state to assess the laboratory's compliance to PT requirements.

16.3.3.5) Remedial PT

16.3.3.5) 1. The certified laboratory participates in only one remedial proficiency-testing audit for an analyte or independent analyte group in any 12-month period to obtain or upgrade approval under this section, as per Massachusetts's PT requirements.

16.3.3.5) 2. The laboratory directs the proficiency-testing provider to send, either in hard copy or electronically, a copy of each evaluation of the certified laboratory's remedial proficiency testing results to California, and all other NELAP and other non-NELAP states. The laboratory allows the proficiency-testing provider to release all information necessary for the state to assess the certified laboratory's compliance with this rule.

16.4) SYSTEM AUDITS AND MANAGEMENT REVIEW

In order to insure that the Quality Assurance program at the laboratory maintains a high profile, there are several mechanisms in place which insure that QA information is routinely conveyed to laboratory management. This includes an annual QA report, reports on internal and external PE samples, and verbal transmittal of QA information to the Laboratory Director and group supervisors during a weekly staff meeting.

16.4.1) System Audits

System audits are performed both by external agencies, and by the laboratory Quality Assurance Group. The focus of these audits is the overall analytical "system", from login to delivery of the finished reports. The purpose of the audits is to document compliance with specified methodology contained in the SOPs.

All audit and review findings and any corrective actions that arise from them shall be documented. The laboratory shall ensure that these actions are discharged within the agreed time frame.

16.4.2) Management Review

16.4.2.1) The Quality Manager prepares and submits an annual QA/QC report for the President, Laboratory Director, and Technical Director. EEA is implementing corporate Eurofins' AMR template. This report describes all the quality assurance activities conducted during the year, including proficiency test sample results, holding time exceedances, de-briefing from external and internal systems audits, and a summary of all out of control events that required corrective action/preventive measures and the effectiveness of the initiated corrective action. Whenever any such quality assurance information impacts a specific analytical project, the events are immediately related to the Client Services Group, who is responsible for informing the client.

16.4.2.2) The annual QC report includes the outcome of recent internal audits, assessments by external bodies, the results of inter-laboratory comparisons of proficiency tests and corrective actions. The annual QC report also

include a discussion of the lab certifications, the laboratory SOPs generated for the year including SOP updates, control charts, acceptance limits updates, Quality Manual updates and data review results.

16.4.2.3) The President, Laboratory Director, and Quality Manager perform an annual managerial review (AMR) of the laboratory quality system and its testing and calibration activities to ensure its continuing suitability and effectiveness, and signs the AMR if effective or not. Any necessary changes or improvements in the quality system and laboratory operations are introduced during the annual managerial review. Thus, the President, Laboratory Director, Technical Director, Quality Manager, CSM, and Technical Managers review the annual QC report, provide an overall assessment of all the QC activities stated in the annual QC report, and introduce any necessary changes or improvements in the quality system and laboratory operations. The annual managerial review also takes into account changes in the volume and type of work undertaken for the previous year and feedback from clients (both positive and negative), complaints and other relevant factors, such as resources and staff training [TNI-EL-V1M2-2009-4.15.1][ISO/IEC 17025:2005(E)-4.15.1]. The annual management review is due on June 30th of each year.

16.4.2.4) The QA Group conducts performance audits of the laboratory and also maintains a program of external blind proficiency testing samples. Results of these external blind performance samples are scored according to the external methods criteria. In addition a debriefing to group leaders and the Laboratory Director is prepared by the QA group following each set of PT samples. Evaluations of any failures on external PT samples are prepared by Group Supervisors and summarized by the Quality Assurance Group for the certifying agencies, with copies conveyed to the Laboratory Director.

16.5) IMPROVEMENT

As per TNI-EL-V1M2-2009-4.10 (ISO/IEC 17025:2005(E)-4.10), improvement in the overall effectiveness of the laboratory management system is a result of the implementation of the various aspects of the laboratory's management system: quality policy (Section 3.2 – "Quality Policy") and objectives (Section 5.0 – "Quality Assurance Objectives"), internal audit practices (Section 16.1 – "Internal Audits"), the review and analysis of data (Section 6.0 – "Quality of Test Results"), the corrective and preventive action process (Section 15.0 – "Control of Non-Conforming Work, Corrective Action, and Preventive Measures"), and the annual management review of the quality management system (Section 16.4.2 – "Management Review") where the various aspects of the management/quality are summarized, and evaluated and plans for improvement are developed. See Figure 15-2 for the Preventive Action Form which is used to document actions required for improvement, name of requestor, responsible personnel to carry out implementation, and estimated completion date.

Attachment:
D4. QM v40 07.25.16 attachment _FINAL.pdf
QA FO 0033.1 Quality Manual Summary of Changes Rev 40 07.25.16.pdf

---

End of document

Version history

Version	Approval	Revision information
38	07.JUL.2015	
39	17.SEP.2015	See Quality Manual Summary of Changes Attachment.
40	01.AUG.2016	See Quality Manual Summary of Changes Rev 40 Attachment.

eurofins | Eaton Analytical

Proficiency Evaluations

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

WP-234 Final Report

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 07/14/14

Close Date: 08/28/14

Report Issued Date: 09/02/14

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-234**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	87.4	91.4	77.7 - 105	Acceptable	SM 2320 B-1997 1997	7/29/2014	-1.39	91.7	3.12	
1575	Chloride	mg/L	75.8	79.7	69.7 - 89.9	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-0.824	78.4	3.10	
1610	Conductivity at 25°C	µmhos/cm	480	463	417 - 509	Acceptable	SM 2510 B-1997 1997	7/29/2014	0.318	476	12.0	
1730	Fluoride	mg/L	1.79	1.90	1.51 - 2.23	Acceptable	EPA 300.0 2.1 1993	7/30/2014	-0.623	1.87	0.123	
1125	Potassium	mg/L	18.4	18.6	14.9 - 22.3	Acceptable	EPA 200.7 4.4 1994	7/29/2014	0.344	18.1	0.832	
1155	Sodium	mg/L	92.6	92.3	73.8 - 111	Acceptable	EPA 200.7 4.4 1994	7/29/2014	0.321	91.2	4.38	
2000	Sulfate	mg/L	17.1	18.1	14.1 - 21.2	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-0.0769	17.2	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	366	383	338 - 428	Acceptable	SM 2540 C-1997 1997	8/6/2014	0.345	360	16.5	
1950	Total Solids at 105°C	mg/L	373	380	335 - 425	Acceptable	SM 2540 B-1997 1997	8/4/2014	-0.126	375	15.6	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	87.4	91.4	77.7 - 105	Acceptable	SM 2320 B-2011 2011	7/29/2014	-1.39	91.7	3.12	
1575	Chloride	mg/L	75.8	79.7	69.7 - 89.9	Acceptable	EPA 9056 1994	7/29/2014	-0.824	78.4	3.10	
1610	Conductivity at 25°C	µmhos/cm	480	463	417 - 509	Acceptable	SM 2510 B-2011 2011	7/29/2014	0.318	476	12.0	
1730	Fluoride	mg/L	1.79	1.90	1.51 - 2.23	Acceptable	EPA 9056 1994	7/30/2014	-0.623	1.87	0.123	
1125	Potassium	mg/L	18.4	18.6	14.9 - 22.3	Acceptable	EPA 6010B 2 1996	7/29/2014	0.344	18.1	0.832	
1155	Sodium	mg/L	92.6	92.3	73.8 - 111	Acceptable	EPA 6010B 2 1996	7/29/2014	0.321	91.2	4.38	
2000	Sulfate	mg/L	17.1	18.1	14.1 - 21.2	Acceptable	EPA 9056 1994	7/29/2014	-0.0769	17.2	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	366	383	338 - 428	Acceptable	SM 2540 C-2011 2011	8/6/2014	0.345	360	16.5	
1950	Total Solids at 105°C	mg/L	373	380	335 - 425	Acceptable	SM 2540 B-2011 2011	8/4/2014	-0.126	375	15.6	

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	87.4	91.4	77.7 - 105	Acceptable	SM2320B 22nd ED 2011	7/29/2014	-1.39	91.7	3.12	
1575	Chloride	mg/L		79.7	69.7 - 89.9	Not Reported				78.4	3.10	
1610	Conductivity at 25°C	µmhos/cm	480	463	417 - 509	Acceptable	EPA 120.1 1982	7/29/2014	0.318	476	12.0	
1730	Fluoride	mg/L	1.87	1.90	1.51 - 2.23	Acceptable	SM 4500-F C-2011 2011	7/29/2014	0.0277	1.87	0.123	
1125	Potassium	mg/L		18.6	14.9 - 22.3	Not Reported				18.1	0.832	
1155	Sodium	mg/L		92.3	73.8 - 111	Not Reported				91.2	4.38	
2000	Sulfate	mg/L		18.1	14.1 - 21.2	Not Reported				17.2	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	366	383	338 - 428	Acceptable	SM2540C 22nd ED 2011	8/6/2014	0.345	360	16.5	
1950	Total Solids at 105°C	mg/L	373	380	335 - 425	Acceptable	SM2540B 22nd ED 2011	8/4/2014	-0.126	375	15.6	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		91.4	77.7 - 105	Not Reported				91.7	3.12	
1575	Chloride	mg/L		79.7	69.7 - 89.9	Not Reported				78.4	3.10	
1610	Conductivity at 25°C	µmhos/cm	480	463	417 - 509	Acceptable	SM2510B 22nd ED 2011	7/29/2014	0.318	476	12.0	
1730	Fluoride	mg/L	1.87	1.90	1.51 - 2.23	Acceptable	SM 4500-F C-1997 1997	7/29/2014	0.0277	1.87	0.123	
1125	Potassium	mg/L		18.6	14.9 - 22.3	Not Reported				18.1	0.832	
1155	Sodium	mg/L		92.3	73.8 - 111	Not Reported				91.2	4.38	
2000	Sulfate	mg/L		18.1	14.1 - 21.2	Not Reported				17.2	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	366	383	338 - 428	Acceptable	SM2540C 20th ED 1997	8/6/2014	0.345	360	16.5	
1950	Total Solids at 105°C	mg/L	373	380	335 - 425	Acceptable	SM2540B 20th ED 1997	8/4/2014	-0.126	375	15.6	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		91.4	77.7 - 105	Not Reported				91.7	3.12	
1575	Chloride	mg/L		79.7	69.7 - 89.9	Not Reported				78.4	3.10	
1610	Conductivity at 25°C	µmhos/cm	480	463	417 - 509	Acceptable	EPA 9050A 1 1996	7/29/2014	0.318	476	12.0	
1730	Fluoride	mg/L	1.87	1.90	1.51 - 2.23	Acceptable	SM4500F- C 22nd ED 2011	7/29/2014	0.0277	1.87	0.123	
1125	Potassium	mg/L		18.6	14.9 - 22.3	Not Reported				18.1	0.832	
1155	Sodium	mg/L		92.3	73.8 - 111	Not Reported				91.2	4.38	
2000	Sulfate	mg/L		18.1	14.1 - 21.2	Not Reported				17.2	1.14	
1955	Total Dissolved Solids at 180°C	mg/L		383	338 - 428	Not Reported				360	16.5	
1950	Total Solids at 105°C	mg/L		380	335 - 425	Not Reported				375	15.6	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	34.0	34.7	25.3 - 41.0	Acceptable	SM 2540 D-1997 1997	8/5/2014	0.636	32.3	2.71	
1035	Calcium	mg/L	29.2	30.1	25.6 - 34.6	Acceptable	EPA 200.7 4.4 1994	8/7/2014	-0.322	29.7	1.67	
1085	Magnesium	mg/L	16.0	16.0	13.6 - 18.4	Acceptable	EPA 200.7 4.4 1994	8/7/2014	0.212	15.8	0.799	
1550	Calcium Hardness as CaCO3	mg/L	72.9	75.3	64.0 - 86.6	Acceptable	EPA 200.7 4.4 1994	8/7/2014	-0.560	74.8	3.47	
1755	Total Hardness as CaCO3	mg/L	139	141	120 - 162	Acceptable	EPA 200.7 4.4 1994	8/7/2014	0.121	138	5.54	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	34.0	34.7	25.3 - 41.0	Acceptable	SM 2540 D-2011 2011	8/5/2014	0.636	32.3	2.71	
1035	Calcium	mg/L	29.2	30.1	25.6 - 34.6	Acceptable	EPA 6010B 2 1996	8/7/2014	-0.322	29.7	1.67	
1085	Magnesium	mg/L	16.0	16.0	13.6 - 18.4	Acceptable	EPA 6010B 2 1996	8/7/2014	0.212	15.8	0.799	
1550	Calcium Hardness as CaCO3	mg/L	72.9	75.3	64.0 - 86.6	Acceptable	EPA 6010B 2 1996	8/7/2014	-0.560	74.8	3.47	
1755	Total Hardness as CaCO3	mg/L	139	141	120 - 162	Acceptable	EPA 6010B 2 1996	8/7/2014	0.121	138	5.54	

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		34.7	25.3 - 41.0	Not Reported				32.3	2.71	
1035	Calcium	mg/L		30.1	25.6 - 34.6	Not Reported				29.7	1.67	
1085	Magnesium	mg/L		16.0	13.6 - 18.4	Not Reported				15.8	0.799	
1550	Calcium Hardness as CaCO3	mg/L	72.9	75.3	64.0 - 86.6	Acceptable	SM 2340 B-1997 1997	8/7/2014	-0.560	74.8	3.47	
1755	Total Hardness as CaCO3	mg/L	139	141	120 - 162	Acceptable	SM 2340 B-1997 1997	8/7/2014	0.121	138	5.54	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		34.7	25.3 - 41.0	Not Reported				32.3	2.71	
1035	Calcium	mg/L		30.1	25.6 - 34.6	Not Reported				29.7	1.67	
1085	Magnesium	mg/L		16.0	13.6 - 18.4	Not Reported				15.8	0.799	
1550	Calcium Hardness as CaCO3	mg/L	72.9	75.3	64.0 - 86.6	Acceptable	SM 2340 B-2011 2011	8/7/2014	-0.560	74.8	3.47	
1755	Total Hardness as CaCO3	mg/L	139	141	120 - 162	Acceptable	SM 2340 B-2011 2011	8/7/2014	0.121	138	5.54	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	34.0	34.7	25.3 - 41.0	Acceptable	SM2540D 22nd ED 2011	8/5/2014	0.636	32.3	2.71	
1035	Calcium	mg/L		30.1	25.6 - 34.6	Not Reported				29.7	1.67	
1085	Magnesium	mg/L		16.0	13.6 - 18.4	Not Reported				15.8	0.799	
1550	Calcium Hardness as CaCO3	mg/L	72.9	75.3	64.0 - 86.6	Acceptable	SM2340B 22nd ED 2011	8/7/2014	-0.560	74.8	3.47	
1755	Total Hardness as CaCO3	mg/L	139	141	120 - 162	Acceptable	SM2340B 22nd ED 2011	8/7/2014	0.121	138	5.54	
WP pH (cat# 577)												
1900	pH	S.U.	5.96	5.93	5.73 - 6.13	Acceptable	SM 4500-H+ B-2011 2011	7/29/2014	0.396	5.94	0.0533	
WP pH (cat# 577)												
1900	pH	S.U.	5.96	5.93	5.73 - 6.13	Acceptable	SM4500H+ B 22nd ED 2011	7/29/2014	0.396	5.94	0.0533	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP pH (cat# 577)												
1900	pH	S.U.	5.96	5.93	5.73 - 6.13	Acceptable	SM 4500-H+ B-2000 2000	7/29/2014	0.396	5.94	0.0533	
WP pH (cat# 577)												
1900	pH	S.U.	5.96	5.93	5.73 - 6.13	Acceptable	EPA 9040B 2 1995	7/29/2014	0.396	5.94	0.0533	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	30.0	28.8	23.5 - 36.6	Acceptable	SM 2540 F-2011 2011	8/4/2014	-0.385	30.7	1.78	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	30.0	28.8	23.5 - 36.6	Acceptable	SM 2540 F-1997 1997	8/4/2014	-0.385	30.7	1.78	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	30.0	28.8	23.5 - 36.6	Acceptable	SM2540F 22nd ED 2011	8/4/2014	-0.385	30.7	1.78	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	314	314	236 - 360	Acceptable	SM 2540 E-1997 1997	8/4/2014	0.428	303	24.7	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	314	314	236 - 360	Acceptable	SM 2540 E-2011 2011	8/4/2014	0.428	303	24.7	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	314	314	236 - 360	Acceptable	SM2540E 22nd ED 2011	8/4/2014	0.428	303	24.7	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	314	314	236 - 360	Acceptable	EPA 160.4 1979	8/4/2014	0.428	303	24.7	

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	4.64	4.76	3.67 - 5.89	Acceptable	EPA 350.1 2 1993	7/29/2014	-0.373	4.79	0.394	
1820	Nitrate + Nitrite as N	mg/L	17.6	17.7	14.8 - 20.4	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-0.279	17.9	1.02	
1810	Nitrate as N	mg/L	17.6	17.7	14.8 - 20.5	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-0.269	17.9	0.938	
1870	ortho-Phosphate as P	mg/L	4.69	4.66	3.96 - 5.36	Acceptable	EPA 365.1 2 1993	7/29/2014	0.0749	4.68	0.189	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	4.64	4.76	3.67 - 5.89	Acceptable	SM4500NH3 H 20th ED 1997	7/29/2014	-0.373	4.79	0.394	
1820	Nitrate + Nitrite as N	mg/L	17.6	17.7	14.8 - 20.4	Acceptable	EPA 9056 1994	7/29/2014	-0.279	17.9	1.02	
1810	Nitrate as N	mg/L	17.6	17.7	14.8 - 20.5	Acceptable	EPA 9056 1994	7/29/2014	-0.269	17.9	0.938	
1870	ortho-Phosphate as P	mg/L	4.69	4.66	3.96 - 5.36	Acceptable	SM 4500-P E-1999 1999	7/29/2014	0.0749	4.68	0.189	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	4.64	4.76	3.67 - 5.89	Acceptable	SM 4500-NH3 H-2011 2011	7/29/2014	-0.373	4.79	0.394	
1820	Nitrate + Nitrite as N	mg/L	18.8	17.7	14.8 - 20.4	Acceptable	EPA 353.2 2 1993	7/29/2014	0.899	17.9	1.02	
1810	Nitrate as N	mg/L	18.8	17.7	14.8 - 20.5	Acceptable	EPA 353.2 2 1993	7/29/2014	1.01	17.9	0.938	
1870	ortho-Phosphate as P	mg/L	4.69	4.66	3.96 - 5.36	Acceptable	SM 4500-P E-2011 2011	7/29/2014	0.0749	4.68	0.189	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	4.64	4.76	3.67 - 5.89	Acceptable	SM4500NH3 H 22nd ED 2011	7/29/2014	-0.373	4.79	0.394	
1820	Nitrate + Nitrite as N	mg/L		17.7	14.8 - 20.4	Not Reported				17.9	1.02	
1810	Nitrate as N	mg/L		17.7	14.8 - 20.5	Not Reported				17.9	0.938	
1870	ortho-Phosphate as P	mg/L	4.69	4.66	3.96 - 5.36	Acceptable	SM4500P E 22nd ED 2011	7/29/2014	0.0749	4.68	0.189	

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L	11.3	12.4	9.16 - 15.4	Acceptable	EPA 351.2 2 1993	7/31/2014	-1.24	12.3	0.845	
1910	Total phosphorus as P	mg/L	2.97	2.95	2.41 - 3.46	Acceptable	EPA 365.1 2 1993	7/25/2014	-0.254	3.02	0.178	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		12.4	9.16 - 15.4	Not Reported				12.3	0.845	
1910	Total phosphorus as P	mg/L	2.97	2.95	2.41 - 3.46	Acceptable	SM 4500-P E-1999 1999	7/25/2014	-0.254	3.02	0.178	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		12.4	9.16 - 15.4	Not Reported				12.3	0.845	
1910	Total phosphorus as P	mg/L	2.97	2.95	2.41 - 3.46	Acceptable	SM4500P E 20th ED 1997	7/25/2014	-0.254	3.02	0.178	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		12.4	9.16 - 15.4	Not Reported				12.3	0.845	
1910	Total phosphorus as P	mg/L	2.97	2.95	2.41 - 3.46	Acceptable	SM4500P E 22nd ED 2011	7/25/2014	-0.254	3.02	0.178	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.65	2.58	2.21 - 2.95	Acceptable	EPA 300.0 2.1 1993	7/29/2014	0.407	2.60	0.134	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.51	2.58	2.21 - 2.95	Acceptable	EPA 353.2 2 1993	7/29/2014	-0.639	2.60	0.134	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.65	2.58	2.21 - 2.95	Acceptable	EPA 300.1 1 2000	7/30/2014	0.407	2.60	0.134	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.65	2.58	2.21 - 2.95	Acceptable	EPA 9056 1994	7/29/2014	0.407	2.60	0.134	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L	38.1	40.7	20.9 - 60.6	Acceptable	SM 5210 B-2001 2001	7/25/2014	-0.379	40.8	7.01	
1555	CBOD	mg/L	40.0	36.9	15.9 - 58.0	Acceptable	SM 5210 B-2001 2001	7/25/2014	0.222	38.4	7.32	
1565	COD	mg/L	68.0	65.6	46.7 - 81.8	Acceptable	SM 5220 D-1997 1997	7/25/2014	0.533	64.9	5.84	
2040	TOC	mg/L	28.8	25.9	21.1 - 30.6	Acceptable	SM 5310 C-2000 2000	8/4/2014	1.34	26.3	1.87	
WP Demand (cat# 578)												
1530	BOD	mg/L	38.1	40.7	20.9 - 60.6	Acceptable	SM 5210 B-2011 2011	7/25/2014	-0.379	40.8	7.01	
1555	CBOD	mg/L	40.0	36.9	15.9 - 58.0	Acceptable	SM 5210 B-2011 2011	7/25/2014	0.222	38.4	7.32	
1565	COD	mg/L	68.0	65.6	46.7 - 81.8	Acceptable	SM 5220 D-2011 2011	7/25/2014	0.533	64.9	5.84	
2040	TOC	mg/L	28.8	25.9	21.1 - 30.6	Acceptable	SM 5310 C-2011 2011	8/4/2014	1.34	26.3	1.87	
WP Demand (cat# 578)												
1530	BOD	mg/L	38.1	40.7	20.9 - 60.6	Acceptable	SM5210B 22nd ED 2011	7/25/2014	-0.379	40.8	7.01	
1555	CBOD	mg/L	40.0	36.9	15.9 - 58.0	Acceptable	SM5210B 22nd ED 2011	7/25/2014	0.222	38.4	7.32	
1565	COD	mg/L	68.0	65.6	46.7 - 81.8	Acceptable	SM5220D 22nd ED 2011	7/25/2014	0.533	64.9	5.84	
2040	TOC	mg/L	28.8	25.9	21.1 - 30.6	Acceptable	SM5310C 22nd ED 2011	8/4/2014	1.34	26.3	1.87	
WP Demand (cat# 578)												
1530	BOD	mg/L	38.1	40.7	20.9 - 60.6	Acceptable	SM5210B 21st ED 2001	7/25/2014	-0.379	40.8	7.01	
1555	CBOD	mg/L	40.0	36.9	15.9 - 58.0	Acceptable	SM5210B 21st ED 2001	7/25/2014	0.222	38.4	7.32	
1565	COD	mg/L	68.0	65.6	46.7 - 81.8	Acceptable	SM5220D 21st ED 1997	7/25/2014	0.533	64.9	5.84	
2040	TOC	mg/L	28.8	25.9	21.1 - 30.6	Acceptable	SM5310C 20th ED 1996	8/4/2014	1.34	26.3	1.87	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L		40.7	20.9 - 60.6	Not Reported				40.8	7.01	
1555	CBOD	mg/L		36.9	15.9 - 58.0	Not Reported				38.4	7.32	
1565	COD	mg/L	68.0	65.6	46.7 - 81.8	Acceptable	EPA 410.4 2 1993	7/25/2014	0.533	64.9	5.84	
2040	TOC	mg/L	28.8	25.9	21.1 - 30.6	Acceptable	EPA 9060A 2004	8/4/2014	1.34	26.3	1.87	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	517	517	411 - 624	Acceptable	EPA 200.7 4.4 1994	7/28/2014	-0.493	532	30.2	
1005	Antimony	µg/L	746	784	643 - 901	Acceptable	EPA 200.7 4.4 1994	8/6/2014	-0.704	774	40.2	
1010	Arsenic	µg/L		135	103 - 168	Not Reported				133	8.34	
1015	Barium	µg/L	791	791	672 - 910	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.0248	792	33.1	
1020	Beryllium	µg/L	320	312	265 - 359	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.0957	319	14.4	
1025	Boron	µg/L	897	944	802 - 1090	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-1.03	956	56.7	
1030	Cadmium	µg/L	132	136	116 - 156	Acceptable	EPA 200.7 4.4 1994	7/28/2014	-0.405	134	5.35	
1040	Chromium	µg/L	640	634	539 - 729	Acceptable	EPA 200.7 4.4 1994	7/28/2014	0.209	634	26.7	
1050	Cobalt	µg/L	606	550	468 - 632	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.990	577	28.9	
1055	Copper	µg/L	834	816	694 - 938	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.323	821	39.6	
1070	Iron	µg/L	880	840	714 - 966	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.654	852	42.7	
1075	Lead	µg/L	679	649	552 - 746	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.862	653	29.7	
1090	Manganese	µg/L	830	772	656 - 888	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.892	797	36.9	
1100	Molybdenum	µg/L	257	273	233 - 310	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-1.09	271	12.5	
1105	Nickel	µg/L	742	716	628 - 809	Acceptable	EPA 200.7 4.4 1994	8/20/2014	0.876	713	33.3	
1140	Selenium	µg/L		660	561 - 759	Not Reported				651	35.4	
1150	Silver	µg/L	778	772	656 - 888	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.241	768	41.9	
1160	Strontium	µg/L	239	237	201 - 273	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.0491	238	10.5	
1165	Thallium	µg/L	653	606	501 - 701	Acceptable	EPA 200.7 4.4 1994	7/24/2014	1.33	607	34.4	
1185	Vanadium	µg/L	867	888	755 - 1020	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.322	880	39.0	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	911	895	761 - 1030	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.375	894	45.0	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	532	517	411 - 624	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.00291	532	30.2	
1005	Antimony	µg/L	771	784	643 - 901	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.0822	774	40.2	
1010	Arsenic	µg/L	130	135	103 - 168	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.418	133	8.34	
1015	Barium	µg/L	800	791	672 - 910	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.247	792	33.1	
1020	Beryllium	µg/L	321	312	265 - 359	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.165	319	14.4	
1025	Boron	µg/L		944	802 - 1090	Not Reported				956	56.7	
1030	Cadmium	µg/L	133	136	116 - 156	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.218	134	5.35	
1040	Chromium	µg/L	647	634	539 - 729	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.471	634	26.7	
1050	Cobalt	µg/L	598	550	468 - 632	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.713	577	28.9	
1055	Copper	µg/L	807	816	694 - 938	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.359	821	39.6	
1070	Iron	µg/L		840	714 - 966	Not Reported				852	42.7	
1075	Lead	µg/L	666	649	552 - 746	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.424	653	29.7	
1090	Manganese	µg/L	798	772	656 - 888	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.0256	797	36.9	
1100	Molybdenum	µg/L	269	273	233 - 310	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.129	271	12.5	
1105	Nickel	µg/L	697	716	628 - 809	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.476	713	33.3	
1140	Selenium	µg/L	616	660	561 - 759	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.988	651	35.4	
1150	Silver	µg/L	748	772	656 - 888	Acceptable	EPA 200.8 5.4 1994	8/18/2014	-0.475	768	41.9	
1160	Strontium	µg/L		237	201 - 273	Not Reported				238	10.5	
1165	Thallium	µg/L	657	606	501 - 701	Acceptable	EPA 200.8 5.4 1994	8/4/2014	1.44	607	34.4	
1185	Vanadium	µg/L	872	888	755 - 1020	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.194	880	39.0	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	903	895	761 - 1030	Acceptable	EPA 200.8 5.4 1994	7/25/2014	0.197	894	45.0	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	517	517	411 - 624	Acceptable	EPA 6010B 2 1996	7/28/2014	-0.493	532	30.2	
1005	Antimony	µg/L	746	784	643 - 901	Acceptable	EPA 6010B 2 1996	8/6/2014	-0.704	774	40.2	
1010	Arsenic	µg/L		135	103 - 168	Not Reported				133	8.34	
1015	Barium	µg/L	791	791	672 - 910	Acceptable	EPA 6010B 2 1996	7/24/2014	-0.0248	792	33.1	
1020	Beryllium	µg/L	320	312	265 - 359	Acceptable	EPA 6010B 2 1996	7/24/2014	0.0957	319	14.4	
1025	Boron	µg/L	897	944	802 - 1090	Acceptable	EPA 6010B 2 1996	7/24/2014	-1.03	956	56.7	
1030	Cadmium	µg/L	132	136	116 - 156	Acceptable	EPA 6010B 2 1996	7/28/2014	-0.405	134	5.35	
1040	Chromium	µg/L	640	634	539 - 729	Acceptable	EPA 6010B 2 1996	7/28/2014	0.209	634	26.7	
1050	Cobalt	µg/L	606	550	468 - 632	Acceptable	EPA 6010B 2 1996	7/24/2014	0.990	577	28.9	
1055	Copper	µg/L	834	816	694 - 938	Acceptable	EPA 6010B 2 1996	7/24/2014	0.323	821	39.6	
1070	Iron	µg/L	880	840	714 - 966	Acceptable	EPA 6010B 2 1996	7/24/2014	0.654	852	42.7	
1075	Lead	µg/L	679	649	552 - 746	Acceptable	EPA 6010B 2 1996	7/24/2014	0.862	653	29.7	
1090	Manganese	µg/L	830	772	656 - 888	Acceptable	EPA 6010B 2 1996	7/24/2014	0.892	797	36.9	
1100	Molybdenum	µg/L	257	273	233 - 310	Acceptable	EPA 6010B 2 1996	7/24/2014	-1.09	271	12.5	
1105	Nickel	µg/L	742	716	628 - 809	Acceptable	EPA 6010B 2 1996	8/20/2014	0.876	713	33.3	
1140	Selenium	µg/L		660	561 - 759	Not Reported				651	35.4	
1150	Silver	µg/L	778	772	656 - 888	Acceptable	EPA 6010B 2 1996	7/24/2014	0.241	768	41.9	
1160	Strontium	µg/L	239	237	201 - 273	Acceptable	EPA 6010B 2 1996	7/24/2014	0.0491	238	10.5	
1165	Thallium	µg/L	653	606	501 - 701	Acceptable	EPA 6010B 2 1996	7/24/2014	1.33	607	34.4	
1185	Vanadium	µg/L	867	888	755 - 1020	Acceptable	EPA 6010B 2 1996	7/24/2014	-0.322	880	39.0	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	911	895	761 - 1030	Acceptable	EPA 6010B 2 1996	7/24/2014	0.375	894	45.0	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	532	517	411 - 624	Acceptable	EPA 6020 0 1994	8/4/2014	0.00291	532	30.2	
1005	Antimony	µg/L	771	784	643 - 901	Acceptable	EPA 6020 0 1994	8/4/2014	-0.0822	774	40.2	
1010	Arsenic	µg/L	130	135	103 - 168	Acceptable	EPA 6020 0 1994	8/4/2014	-0.418	133	8.34	
1015	Barium	µg/L	800	791	672 - 910	Acceptable	EPA 6020 0 1994	8/4/2014	0.247	792	33.1	
1020	Beryllium	µg/L	321	312	265 - 359	Acceptable	EPA 6020 0 1994	8/4/2014	0.165	319	14.4	
1025	Boron	µg/L		944	802 - 1090	Not Reported				956	56.7	
1030	Cadmium	µg/L	133	136	116 - 156	Acceptable	EPA 6020 0 1994	8/4/2014	-0.218	134	5.35	
1040	Chromium	µg/L	647	634	539 - 729	Acceptable	EPA 6020 0 1994	8/4/2014	0.471	634	26.7	
1050	Cobalt	µg/L	598	550	468 - 632	Acceptable	EPA 6020 0 1994	8/4/2014	0.713	577	28.9	
1055	Copper	µg/L	807	816	694 - 938	Acceptable	EPA 6020 0 1994	8/4/2014	-0.359	821	39.6	
1070	Iron	µg/L		840	714 - 966	Not Reported				852	42.7	
1075	Lead	µg/L	666	649	552 - 746	Acceptable	EPA 6020 0 1994	8/4/2014	0.424	653	29.7	
1090	Manganese	µg/L	798	772	656 - 888	Acceptable	EPA 6020 0 1994	8/4/2014	0.0256	797	36.9	
1100	Molybdenum	µg/L	269	273	233 - 310	Acceptable	EPA 6020 0 1994	8/4/2014	-0.129	271	12.5	
1105	Nickel	µg/L	697	716	628 - 809	Acceptable	EPA 6020 0 1994	8/4/2014	-0.476	713	33.3	
1140	Selenium	µg/L	616	660	561 - 759	Acceptable	EPA 6020 0 1994	8/4/2014	-0.988	651	35.4	
1150	Silver	µg/L	748	772	656 - 888	Acceptable	EPA 6020 0 1994	8/18/2014	-0.475	768	41.9	
1160	Strontium	µg/L		237	201 - 273	Not Reported				238	10.5	
1165	Thallium	µg/L	657	606	501 - 701	Acceptable	EPA 6020 0 1994	8/4/2014	1.44	607	34.4	
1185	Vanadium	µg/L	872	888	755 - 1020	Acceptable	EPA 6020 0 1994	8/4/2014	-0.194	880	39.0	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	903	895	761 - 1030	Acceptable	EPA 6020 0 1994	7/25/2014	0.197	894	45.0	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	532	517	411 - 624	Acceptable	EPA 6020A 1 2007	8/4/2014	0.00291	532	30.2	
1005	Antimony	µg/L	771	784	643 - 901	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.0822	774	40.2	
1010	Arsenic	µg/L	130	135	103 - 168	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.418	133	8.34	
1015	Barium	µg/L	800	791	672 - 910	Acceptable	EPA 6020A 1 2007	8/4/2014	0.247	792	33.1	
1020	Beryllium	µg/L	321	312	265 - 359	Acceptable	EPA 6020A 1 2007	8/4/2014	0.165	319	14.4	
1025	Boron	µg/L		944	802 - 1090	Not Reported				956	56.7	
1030	Cadmium	µg/L	133	136	116 - 156	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.218	134	5.35	
1040	Chromium	µg/L	647	634	539 - 729	Acceptable	EPA 6020A 1 2007	8/4/2014	0.471	634	26.7	
1050	Cobalt	µg/L	598	550	468 - 632	Acceptable	EPA 6020A 1 2007	8/4/2014	0.713	577	28.9	
1055	Copper	µg/L	807	816	694 - 938	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.359	821	39.6	
1070	Iron	µg/L		840	714 - 966	Not Reported				852	42.7	
1075	Lead	µg/L	666	649	552 - 746	Acceptable	EPA 6020A 1 2007	8/4/2014	0.424	653	29.7	
1090	Manganese	µg/L	798	772	656 - 888	Acceptable	EPA 6020A 1 2007	8/4/2014	0.0256	797	36.9	
1100	Molybdenum	µg/L	269	273	233 - 310	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.129	271	12.5	
1105	Nickel	µg/L	697	716	628 - 809	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.476	713	33.3	
1140	Selenium	µg/L	616	660	561 - 759	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.988	651	35.4	
1150	Silver	µg/L	748	772	656 - 888	Acceptable	EPA 6020A 1 2007	8/18/2014	-0.475	768	41.9	
1160	Strontium	µg/L		237	201 - 273	Not Reported				238	10.5	
1165	Thallium	µg/L	657	606	501 - 701	Acceptable	EPA 6020A 1 2007	8/4/2014	1.44	607	34.4	
1185	Vanadium	µg/L	872	888	755 - 1020	Acceptable	EPA 6020A 1 2007	8/4/2014	-0.194	880	39.0	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	903	895	761 - 1030	Acceptable	EPA 6020A 1 2007	7/25/2014	0.197	894	45.0	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	7.47	12.2	8.54 - 15.9	Not Acceptable	EPA 245.1 3 1994	7/24/2014	-3.95	12.1	1.17	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	7.47	12.2	8.54 - 15.9	Not Acceptable	EPA 7470A 1 1994	7/24/2014	-3.95	12.1	1.17	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	220	231	191 - 270	Acceptable	EPA 218.6 3.3 1994	7/28/2014	-0.625	229	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	220	231	191 - 270	Acceptable	SM 3500-Cr C-2009 2009	7/28/2014	-0.625	229	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	220	231	191 - 270	Acceptable	SM 3500-Cr C-2011 2011	7/28/2014	-0.625	229	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	220	231	191 - 270	Acceptable	EPA 7199 1996	7/28/2014	-0.625	229	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	235	231	191 - 270	Acceptable	SM 3500-Cr B-2009 2009	7/25/2014	0.414	229	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	235	231	191 - 270	Acceptable	SM 3500-Cr B-2011 2011	7/25/2014	0.414	229	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	235	231	191 - 270	Acceptable	EPA 7196A 1 1992	7/25/2014	0.414	229	14.4	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	594	559	391 - 727	Acceptable	EPA 200.8 5.4 1994	7/29/2014	0.896	567	30.4	
1180	Titanium	µg/L	206	199	169 - 229	Acceptable	EPA 200.8 5.4 1994	7/29/2014	1.05	199	7.02	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	545	559	391 - 727	Acceptable	EPA 200.7 4.4 1994	7/28/2014	-0.715	567	30.4	
1180	Titanium	µg/L	192	199	169 - 229	Acceptable	EPA 200.7 4.4 1994	7/28/2014	-0.944	199	7.02	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	594	559	391 - 727	Acceptable	EPA 6020 1994	7/29/2014	0.896	567	30.4	
1180	Titanium	µg/L	206	199	169 - 229	Acceptable	EPA 6020 1994	7/29/2014	1.05	199	7.02	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	594	559	391 - 727	Acceptable	EPA 6020A 1 2007	7/29/2014	0.896	567	30.4	
1180	Titanium	µg/L	206	199	169 - 229	Acceptable	EPA 6020A 1 2007	7/29/2014	1.05	199	7.02	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	545	559	391 - 727	Acceptable	EPA 6010B 2 1996	7/28/2014	-0.715	567	30.4	
1180	Titanium	µg/L	192	199	169 - 229	Acceptable	EPA 6010B 2 1996	7/28/2014	-0.944	199	7.02	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM 2120 B-2001 2001	7/21/2014	-0.725	32.9	3.99	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM 2120 B-2011 2011	7/21/2014	-0.725	32.9	3.99	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM2120B 22nd ED 2011	7/21/2014	-0.725	32.9	3.99	

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.51	3.79	2.76 - 4.78	Acceptable	EPA 180.1 2 1993	7/25/2014	-0.677	3.69	0.269	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.51	3.79	2.76 - 4.78	Acceptable	SM 2130 B-2001 2001	7/25/2014	-0.677	3.69	0.269	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.51	3.79	2.76 - 4.78	Acceptable	SM 2130 B-2011 2011	7/25/2014	-0.677	3.69	0.269	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.51	3.79	2.76 - 4.78	Acceptable	SM2130B 22nd ED 2011	7/25/2014	-0.677	3.69	0.269	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.882	0.963	0.626 - 1.30	Acceptable	EPA 335.4 1993	7/31/2014	-0.894	0.948	0.0744	
1510	Amenable Cyanide	mg/L		0.367	0.239 - 0.495	Not Reported				0.350	0.0748	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.882	0.963	0.626 - 1.30	Acceptable	SM 4500-CN F-2011 2011	7/31/2014	-0.894	0.948	0.0744	
1510	Amenable Cyanide	mg/L		0.367	0.239 - 0.495	Not Reported				0.350	0.0748	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.882	0.963	0.626 - 1.30	Acceptable	SM4500CN F 22nd ED 2011	7/31/2014	-0.894	0.948	0.0744	
1510	Amenable Cyanide	mg/L		0.367	0.239 - 0.495	Not Reported				0.350	0.0748	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.882	0.963	0.626 - 1.30	Acceptable	EPA 9012A 1996	7/31/2014	-0.894	0.948	0.0744	
1510	Amenable Cyanide	mg/L		0.367	0.239 - 0.495	Not Reported				0.350	0.0748	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.882	0.963	0.626 - 1.30	Acceptable	SM 4500 CN F 1999 1999	7/31/2014	-0.894	0.948	0.0744	
1510	Amenable Cyanide	mg/L		0.367	0.239 - 0.495	Not Reported				0.350	0.0748	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	4.80	0.576	0.284 - 0.868	Not Acceptable	EPA 420.4 1 1993	8/6/2014	48.7	0.590	0.0865	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	4.80	0.576	0.284 - 0.868	Not Acceptable	EPA 420.1 1978	8/6/2014	48.7	0.590	0.0865	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	4.80	0.576	0.284 - 0.868	Not Acceptable	EPA 9066 1986	8/6/2014	48.7	0.590	0.0865	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	71.2	63.7	47.8 - 79.6	Acceptable	EPA 200.7 4.4 1994	7/24/2014	2.00	64.5	3.33	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	71.2	63.7	47.8 - 79.6	Acceptable	EPA 6010B 2 1996	7/24/2014	2.00	64.5	3.33	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	65.0	63.7	47.8 - 79.6	Acceptable	SM 4500-SiO2 C-2011 2011	7/25/2014	0.145	64.5	3.33	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	65.0	63.7	47.8 - 79.6	Acceptable	SM 4500-SiO2 C-1997 1997	7/25/2014	0.145	64.5	3.33	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	65.0	63.7	47.8 - 79.6	Acceptable	SM4500SiO2 C 22nd ED 2011	7/25/2014	0.145	64.5	3.33	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.00	5.17	2.15 - 7.58	Acceptable	EPA 376.2 1978	8/12/2014	-0.667	4.49	0.738	

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.00	5.17	2.15 - 7.58	Acceptable	SM 4500-S2 D-2000 2000	8/12/2014	-0.667	4.49	0.738	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.00	5.17	2.15 - 7.58	Acceptable	SM 4500-S2 D-2011 2011	8/12/2014	-0.667	4.49	0.738	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.00	5.17	2.15 - 7.58	Acceptable	SM4500S2- D 22nd ED 2011	8/12/2014	-0.667	4.49	0.738	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.00	5.17	2.15 - 7.58	Acceptable	EPA 9034 1996	8/12/2014	-0.667	4.49	0.738	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.582	0.557	0.338 - 0.809	Acceptable	SM 5540 C-2000 2000	7/22/2014	-0.00592	0.582	0.0752	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.582	0.557	0.338 - 0.809	Acceptable	SM 5540 C-2011 2011	7/22/2014	-0.00592	0.582	0.0752	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.582	0.557	0.338 - 0.809	Acceptable	SM5540C 22nd ED 2011	7/22/2014	-0.00592	0.582	0.0752	
WP Boron (cat# 886)												
1025	Boron	µg/L	1650	1760	1500 - 2020	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.165	1660	73.4	
WP Boron (cat# 886)												
1025	Boron	µg/L	1650	1760	1500 - 2020	Acceptable	EPA 6010B 2 1996	7/24/2014	-0.165	1660	73.4	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	2.66	2.59	1.98 - 3.15	Acceptable	EPA 300.1 1 2000	7/31/2014	0.662	2.55	0.165	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	2.61	2.59	1.98 - 3.15	Acceptable	EPA 300.0 2.1 1993	7/29/2014	0.359	2.55	0.165	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Bromide (cat# 887)												
1540	Bromide	mg/L	2.61	2.59	1.98 - 3.15	Acceptable	EPA 9056 1994	7/29/2014	0.359	2.55	0.165	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.04	0.996	0.742 - 1.20	Acceptable	SM 4500-Cl G-2000 2000	7/28/2014	0.772	0.975	0.0842	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.04	0.996	0.742 - 1.20	Acceptable	SM 4500-Cl G-2011 2011	7/28/2014	0.772	0.975	0.0842	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.04	0.996	0.742 - 1.20	Acceptable	SM4500Cl G 22nd ED 2011	7/28/2014	0.772	0.975	0.0842	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-234**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	230	239	73.8 - 511	Acceptable	SM9223B MPN online	7/29/2014	0.493	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	230	239	79.1 - 462	Acceptable	SM9223B MPN online	7/29/2014	0.610	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	230	239	73.8 - 511	Acceptable	SM 9223 B-2004 2004	7/29/2014	0.493	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	230	239	79.1 - 462	Acceptable	SM 9223 B-2004 2004	7/29/2014	0.610	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	230	239	73.8 - 511	Acceptable	SM9223B MPN 22nd ED 2004	7/29/2014	0.493	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	230	239	79.1 - 462	Acceptable	SM9223B MPN 22nd ED 1997	7/29/2014	0.610	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	156	239	73.8 - 511	Acceptable	SM9223 COLertQT online	7/29/2014	-0.524	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	156	239	79.1 - 462	Acceptable	SM9223 COLertQT online	7/29/2014	-0.550	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	156	239	73.8 - 511	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	7/29/2014	-0.524	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	156	239	79.1 - 462	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	7/29/2014	-0.550	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	230	239	73.8 - 511	Acceptable	SM9223 COLert18 online	8/20/2014	0.493	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	230	239	79.1 - 462	Acceptable	SM9223 COLert18 online	8/20/2014	0.610	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	230	239	73.8 - 511	Acceptable	SM9223 COLert18 21st ED 1997	8/20/2014	0.493	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	230	239	79.1 - 462	Acceptable	SM9223 COLert18 21st ED 1997	8/20/2014	0.610	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	194	239	73.8 - 511	Acceptable	SM9223 COLt18QT online	7/30/2014	-0.00187	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	194	239	79.1 - 462	Acceptable	SM9223 COLt18QT online	7/30/2014	0.0457	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	194	239	73.8 - 511	Acceptable	SM9223 COLt18QT 21st ED 2005	7/30/2014	-0.00187	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		239	25.7 - 838	Not Reported				147	135	
2525	E.coli (MPN)	MPN/100mL	194	239	79.1 - 462	Acceptable	SM9223 COLt18QT 21st ED 2005	7/30/2014	0.0457	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	110	239	73.8 - 511	Acceptable	SM9221B LTB online	8/12/2014	-1.16	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL	110	239	25.7 - 838	Acceptable	SM9221B+E LTBEC online	8/12/2014	-0.272	147	135	
2525	E.coli (MPN)	MPN/100mL	110	239	79.1 - 462	Acceptable	SM9221B+E LTBEC online	8/12/2014	-1.27	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	110	239	73.8 - 511	Acceptable	SM 9221 B-2006 2006	8/12/2014	-1.16	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL	110	239	25.7 - 838	Acceptable	SM 9221 E + C-2006 2006	8/12/2014	-0.272	147	135	
2525	E.coli (MPN)	MPN/100mL	110	239	79.1 - 462	Acceptable	SM 9221 B.1 + F-2006 2006	8/12/2014	-1.27	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		188	56.0 - 436	Not Reported				157	63.2	
2530	Fecal Coliforms (MF)	CFU/100mL		188	8.00 - 618	Not Reported				71.0	102	
2525	E.coli (MF)	CFU/100mL		188	44.0 - 327	Not Reported				121	47.1	
2500	Total Coliforms (MPN)	MPN/100mL	110	239	73.8 - 511	Acceptable	SM9221B 22nd ED 2006	8/12/2014	-1.16	194	72.8	
2530	Fecal Coliforms (MPN)	MPN/100mL	110	239	25.7 - 838	Acceptable	SM9221C 22nd ED 2006	8/12/2014	-0.272	147	135	
2525	E.coli (MPN)	MPN/100mL	110	239	79.1 - 462	Acceptable	SM9221F 22nd ED 2006	8/12/2014	-1.27	191	63.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		395	192 - 511	Not Reported				313	53.3	
2520	Enterococci (MPN)	MPN/100mL	330	390	131 - 635	Acceptable	SM 9230 B-2007 2007	7/28/2014	0.490	289	84.0	
2540	Fecal Streptococci (MF)	CFU/100mL		395	200 - 570	Not Reported				338	61.6	
2540	Fecal Streptococci (MPN)	MPN/100mL	330	390	173 - 578	Acceptable	SM 9230 B-2007 2007	7/28/2014	0.208	316	67.6	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)

2520	Enterococci (MF)	CFU/100mL		395	192 - 511	Not Reported				313	53.3	
2520	Enterococci (MPN)	MPN/100mL	330	390	131 - 635	Acceptable	SM9230B NaCl online	7/28/2014	0.490	289	84.0	
2540	Fecal Streptococci (MF)	CFU/100mL		395	200 - 570	Not Reported				338	61.6	
2540	Fecal Streptococci (MPN)	MPN/100mL	330	390	173 - 578	Acceptable	SM9230B NaCl online	7/28/2014	0.208	316	67.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)

2520	Enterococci (MF)	CFU/100mL		395	192 - 511	Not Reported				313	53.3	
2520	Enterococci (MPN)	MPN/100mL	308	390	131 - 635	Acceptable	SM 9230 D Enterolert®	7/31/2014	0.229	289	84.0	
2540	Fecal Streptococci (MF)	CFU/100mL		395	200 - 570	Not Reported				338	61.6	
2540	Fecal Streptococci (MPN)	MPN/100mL	308	390	173 - 578	Acceptable	SM 9230 D Enterolert®	7/31/2014	-0.118	316	67.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-234**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	58.8	58.8	14.6 - 96.7	Acceptable	EPA 624 Appendix A 1982	8/4/2014	0.247	56.1	10.8	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/23/2014				
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/23/2014				
4375	Benzene	µg/L	18.6	19.4	13.6 - 25.2	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.431	19.5	2.16	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4395	Bromodichloromethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4400	Bromoform	µg/L	45.0	42.7	25.6 - 59.8	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.144	44.2	5.30	
4950	Bromomethane	µg/L	25.4	25.0	10.0 - 40.0	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.620	20.7	7.55	
4410	2-Butanone (MEK)	µg/L	< 5.0	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2014				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	39.2	40.1	26.4 - 55.0	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.420	41.1	4.48	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4455	Carbon tetrachloride	µg/L	83.7	82.1	46.4 - 111	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.159	81.6	13.2	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4575	Chlorodibromomethane	µg/L	112	92.0	55.2 - 129	Acceptable	EPA 624 Appendix A 1982	7/25/2014	2.16	93.8	8.41	
4485	Chloroethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/24/2014				
4505	Chloroform	µg/L	75.5	73.1	51.2 - 95.0	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.0832	74.8	7.95	
4960	Chloromethane	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		43.2	25.9 - 60.5	Not Reported				43.7	6.96	
4585	1,2-Dibromoethane (EDB)	µg/L		< 6.50	0.00 - 6.50	Not Reported						
4595	Dibromomethane	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4610	1,2-Dichlorobenzene	µg/L	64.8	66.4	46.5 - 86.3	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.0923	64.0	8.14	
4615	1,3-Dichlorobenzene	µg/L	113	103	72.1 - 134	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.964	98.8	14.7	
4620	1,4-Dichlorobenzene	µg/L	46.0	45.3	31.7 - 58.9	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.366	44.1	5.32	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4630	1,1-Dichloroethane	µg/L	42.1	42.9	27.2 - 58.9	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.551	44.8	4.95	
4635	1,2-Dichloroethane	µg/L	147	131	93.1 - 168	Acceptable	EPA 624 Appendix A 1982	7/25/2014	1.18	132	12.3	
4640	1,1-Dichloroethylene	µg/L	32.6	34.6	20.2 - 50.6	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.603	36.1	5.86	
4645	cis-1,2-Dichloroethylene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
4700	trans-1,2-Dichloroethylene	µg/L	34.7	34.1	20.5 - 47.7	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.124	35.2	4.22	
4655	1,2-Dichloropropane	µg/L	138	124	86.8 - 161	Acceptable	EPA 624 Appendix A 1982	7/25/2014	1.04	124	13.1	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	58.8	55.5	36.1 - 74.9	Acceptable	EPA 624 Appendix A 1982	7/25/2014	1.43	50.7	5.68	
4685	trans-1,3-Dichloropropylene	µg/L	101	98.0	63.7 - 132	Acceptable	EPA 624 Appendix A 1982	7/25/2014	1.13	90.5	9.25	
4765	Ethylbenzene	µg/L	36.1	36.3	25.4 - 47.2	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.150	35.4	4.70	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 624 Appendix A 1982	8/4/2014				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	66.8	53.4	32.0 - 74.8	Acceptable	EPA 624 Appendix A 1982	7/25/2014	1.89	54.5	6.50	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 624 Appendix A 1982	8/4/2014				
5005	Naphthalene	µg/L		16.6	7.10 - 24.9	Not Reported				16.1	2.22	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	40.0	35.5	23.1 - 47.9	Acceptable	EPA 624 Appendix A 1982	7/25/2014	1.33	34.3	4.25	
5105	1,1,1,2-Tetrachloroethane	µg/L	44.1	39.7	25.8 - 53.6	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.798	40.9	3.96	
5110	1,1,2,2-Tetrachloroethane	µg/L	53.8	55.2	35.9 - 74.5	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.532	57.1	6.25	
5115	Tetrachloroethylene	µg/L	28.8	31.2	16.7 - 41.0	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.0420	29.0	4.65	
5140	Toluene	µg/L	50.6	51.6	36.1 - 67.1	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.0787	51.0	5.04	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		113	50.7 - 154	Not Reported				102	19.0	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
5165	1,1,2-Trichloroethane	µg/L	135	121	84.7 - 157	Acceptable	EPA 624 Appendix A 1982	7/25/2014	0.994	123	11.9	
5170	Trichloroethylene	µg/L	57.5	60.5	38.4 - 79.0	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.194	58.9	6.97	
5175	Trichlorofluoromethane	µg/L	26.0	28.9	11.6 - 46.2	Acceptable	EPA 624 Appendix A 1982	7/25/2014	-0.752	30.5	5.95	
5180	1,2,3-Trichloropropane (TCP)	µg/L	116	90.4	41.6 - 136	Acceptable	EPA 624 Appendix A 1982	7/25/2014	2.17	90.4	11.8	
5210	1,2,4-Trimethylbenzene	µg/L		18.0	11.7 - 24.3	Not Reported				17.0	2.85	
5215	1,3,5-Trimethylbenzene	µg/L		30.4	19.8 - 41.0	Not Reported				28.0	4.96	
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
5240	m&p-Xylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
5250	o-Xylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	7/25/2014				
5260	Xylenes, total	µg/L	< 0.50	< 12.0	0.00 - 12.0	Acceptable	EPA 624 Appendix A 1982	7/25/2014				

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	58.8	58.8	14.6 - 96.7	Acceptable	EPA 8260B 2 1996	8/4/2014	0.247	56.1	10.8	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/23/2014				
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/23/2014				
4375	Benzene	µg/L	18.6	19.4	13.6 - 25.2	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.431	19.5	2.16	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
4395	Bromodichloromethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
4400	Bromoform	µg/L	45.0	42.7	25.6 - 59.8	Acceptable	EPA 8260B 2 1996	7/25/2014	0.144	44.2	5.30	
4950	Bromomethane	µg/L	25.4	25.0	10.0 - 40.0	Acceptable	EPA 8260B 2 1996	7/25/2014	0.620	20.7	7.55	
4410	2-Butanone (MEK)	µg/L	< 5.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2014				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	39.2	40.1	26.4 - 55.0	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.420	41.1	4.48	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
4455	Carbon tetrachloride	µg/L	83.7	82.1	46.4 - 111	Acceptable	EPA 8260B 2 1996	7/25/2014	0.159	81.6	13.2	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
4575	Chlorodibromomethane	µg/L	112	92.0	55.2 - 129	Acceptable	EPA 8260B 2 1996	7/25/2014	2.16	93.8	8.41	
4485	Chloroethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	7/25/2014				

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/24/2014				
4505	Chloroform	µg/L	75.5	73.1	51.2 - 95.0	Acceptable	EPA 8260B 2 1996	7/25/2014	0.0832	74.8	7.95	
4960	Chloromethane	µg/L	< 8.00	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		43.2	25.9 - 60.5	Not Reported				43.7	6.96	
4585	1,2-Dibromoethane (EDB)	µg/L		< 6.50	0.00 - 6.50	Not Reported						
4595	Dibromomethane	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	7/25/2014				
4610	1,2-Dichlorobenzene	µg/L	64.8	66.4	46.5 - 86.3	Acceptable	EPA 8260B 2 1996	7/25/2014	0.0923	64.0	8.14	
4615	1,3-Dichlorobenzene	µg/L	113	103	72.1 - 134	Acceptable	EPA 8260B 2 1996	7/25/2014	0.964	98.8	14.7	
4620	1,4-Dichlorobenzene	µg/L	46.0	45.3	31.7 - 58.9	Acceptable	EPA 8260B 2 1996	7/25/2014	0.366	44.1	5.32	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
4630	1,1-Dichloroethane	µg/L	42.1	42.9	27.2 - 58.9	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.551	44.8	4.95	
4635	1,2-Dichloroethane	µg/L	147	131	93.1 - 168	Acceptable	EPA 8260B 2 1996	7/25/2014	1.18	132	12.3	
4640	1,1-Dichloroethylene	µg/L	32.6	34.6	20.2 - 50.6	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.603	36.1	5.86	
4645	cis-1,2-Dichloroethylene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
4700	trans-1,2-Dichloroethylene	µg/L	34.7	34.1	20.5 - 47.7	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.124	35.2	4.22	
4655	1,2-Dichloropropane	µg/L	138	124	86.8 - 161	Acceptable	EPA 8260B 2 1996	7/25/2014	1.04	124	13.1	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	58.8	55.5	36.1 - 74.9	Acceptable	EPA 8260B 2 1996	7/25/2014	1.43	50.7	5.68	
4685	trans-1,3-Dichloropropylene	µg/L	101	98.0	63.7 - 132	Acceptable	EPA 8260B 2 1996	7/25/2014	1.13	90.5	9.25	
4765	Ethylbenzene	µg/L	36.1	36.3	25.4 - 47.2	Acceptable	EPA 8260B 2 1996	7/25/2014	0.150	35.4	4.70	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 8260B 2 1996	8/4/2014				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	66.8	53.4	32.0 - 74.8	Acceptable	EPA 8260B 2 1996	7/25/2014	1.89	54.5	6.50	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 8260B 2 1996	8/4/2014				
5005	Naphthalene	µg/L		16.6	7.10 - 24.9	Not Reported				16.1	2.22	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	40.0	35.5	23.1 - 47.9	Acceptable	EPA 8260B 2 1996	7/25/2014	1.33	34.3	4.25	
5105	1,1,1,2-Tetrachloroethane	µg/L	44.1	39.7	25.8 - 53.6	Acceptable	EPA 8260B 2 1996	7/25/2014	0.798	40.9	3.96	
5110	1,1,2,2-Tetrachloroethane	µg/L	53.8	55.2	35.9 - 74.5	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.532	57.1	6.25	
5115	Tetrachloroethylene	µg/L	28.8	31.2	16.7 - 41.0	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.0420	29.0	4.65	
5140	Toluene	µg/L	50.6	51.6	36.1 - 67.1	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.0787	51.0	5.04	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		113	50.7 - 154	Not Reported				102	19.0	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
5165	1,1,2-Trichloroethane	µg/L	135	121	84.7 - 157	Acceptable	EPA 8260B 2 1996	7/25/2014	0.994	123	11.9	
5170	Trichloroethylene	µg/L	57.5	60.5	38.4 - 79.0	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.194	58.9	6.97	
5175	Trichlorofluoromethane	µg/L	26.0	28.9	11.6 - 46.2	Acceptable	EPA 8260B 2 1996	7/25/2014	-0.752	30.5	5.95	
5180	1,2,3-Trichloropropane (TCP)	µg/L	116	90.4	41.6 - 136	Acceptable	EPA 8260B 2 1996	7/25/2014	2.17	90.4	11.8	
5210	1,2,4-Trimethylbenzene	µg/L		18.0	11.7 - 24.3	Not Reported				17.0	2.85	
5215	1,3,5-Trimethylbenzene	µg/L		30.4	19.8 - 41.0	Not Reported				28.0	4.96	
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
5240	m&p-Xylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
5250	o-Xylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	7/25/2014				
5260	Xylenes, total	µg/L	< 0.50	< 12.0	0.00 - 12.0	Acceptable	EPA 8260B 2 1996	7/25/2014				

WP-234 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	29.8	38.6	13.9 - 47.6	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.163	30.6	5.15	
5505	Acenaphthylene	µg/L	39.4	49.6	17.1 - 62.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.258	41.1	6.57	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5555	Anthracene	µg/L	< 5.00	< 3.90	0.00 - 3.90	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5575	Benzo(a)anthracene	µg/L	39.0	46.2	21.4 - 57.2	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.174	38.3	4.12	
5585	Benzo(b)fluoranthene	µg/L	25.6	28.8	10.9 - 37.4	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.297	24.7	3.10	
5600	Benzo(k)fluoranthene	µg/L	26.1	28.9	6.24 - 45.3	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.134	25.6	3.70	
5590	Benzo(g,h,i)perylene	µg/L	24.4	26.7	11.1 - 36.1	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.184	23.8	3.27	
5580	Benzo(a)pyrene	µg/L	10.6	14.2	3.97 - 19.2	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.374	11.2	1.73	
5630	Benzyl alcohol	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5660	4-Bromophenyl-phenylether	µg/L	46.9	57.7	24.1 - 75.3	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.0538	47.2	6.47	
5670	Butylbenzylphthalate	µg/L	< 5.00	< 13.4	0.00 - 13.4	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5760	bis(2-Chloroethoxy)methane	µg/L	67.9	83.2	29.4 - 98.3	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.237	65.6	9.90	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5780	bis(2-Chloroisopropyl)ether	µg/L	41.2	58.9	12.9 - 76.3	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.286	43.6	8.49	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	64.8	88.5	24.6 - 106	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.0683	64.0	11.9	
5825	4-Chlorophenyl-phenylether	µg/L	62.9	72.0	27.7 - 90.3	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.106	61.9	9.48	
5855	Chrysene	µg/L	15.0	15.2	7.96 - 21.6	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.353	14.3	2.02	
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5905	Dibenzofuran	µg/L	94.0	123	47.9 - 140	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.145	91.7	16.0	
5925	Di-n-butylphthalate	µg/L	65.3	77.0	28.1 - 102	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.0340	65.0	7.41	
4610	1,2-Dichlorobenzene	µg/L		80.1	8.67 - 94.9	Not Reported				47.9	16.8	
4615	1,3-Dichlorobenzene	µg/L		67.6	6.76 - 80.3	Not Reported				38.1	16.3	
4620	1,4-Dichlorobenzene	µg/L		139	13.9 - 153	Not Reported				76.7	31.1	
5945	3,3'-Dichlorobenzidine	µg/L	< 50.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6070	Diethylphthalate	µg/L	91.6	109	19.9 - 150	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.319	87.4	13.1	
6135	Dimethylphthalate	µg/L	< 5.00	< 11.5	0.00 - 11.5	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6185	2,4-Dinitrotoluene	µg/L	32.6	43.2	15.4 - 56.5	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.01	37.8	5.12	
6190	2,6-Dinitrotoluene	µg/L	67.9	93.7	38.0 - 113	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.878	78.9	12.5	
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6065	bis(2-Ethylhexyl)phthalate	µg/L	35.2	41.1	12.7 - 58.7	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.0683	34.9	4.54	
6265	Fluoranthene	µg/L	67.4	78.3	36.2 - 96.4	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.0397	67.1	8.31	
6270	Fluorene	µg/L	68.8	84.3	35.4 - 101	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.00659	68.7	10.2	
6275	Hexachlorobenzene	µg/L	< 5.00	< 8.80	0.00 - 8.80	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
4835	Hexachlorobutadiene	µg/L	< 10.0	< 4.30	0.00 - 4.30	Acceptable	EPA 625 Appendix A 1982	7/28/2014				

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	59.6	83.6	8.36 - 112	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.0000268	59.6	23.7	
4840	Hexachloroethane	µg/L	57.2	103	10.3 - 113	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.0246	56.6	26.4	
6315	Indeno(1,2,3-cd)pyrene	µg/L	< 10.0	< 9.20	0.00 - 9.20	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6320	Isophorone	µg/L	< 5.00	< 7.10	0.00 - 7.10	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6385	2-Methylnaphthalene	µg/L	< 5.00	< 2.00	0.00 - 2.00	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5005	Naphthalene	µg/L	89.5	123	29.5 - 144	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.121	86.7	23.0	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5015	Nitrobenzene	µg/L	< 5.00	< 6.20	0.00 - 6.20	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	88.2	116	11.6 - 131	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.815	65.9	27.4	
6535	N-Nitrosodiphenylamine	µg/L	< 5.00	< 5.60	0.00 - 5.60	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6545	N-Nitroso-di-n-propylamine	µg/L	53.3	72.0	23.2 - 90.6	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.686	58.8	7.98	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	< 5.00	< 4.70	0.00 - 4.70	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
6665	Pyrene	µg/L	< 5.00	< 4.90	0.00 - 4.90	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	37.9	53.9	8.02 - 67.2	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.0711	37.0	12.5	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	29.8	38.6	13.9 - 47.6	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.163	30.6	5.15	
5505	Acenaphthylene	µg/L	39.4	49.6	17.1 - 62.0	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.258	41.1	6.57	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	7/28/2014				
5555	Anthracene	µg/L	< 5.00	< 3.90	0.00 - 3.90	Acceptable	EPA 8270C 3 1996	7/28/2014				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 8270C 3 1996	7/28/2014				
5575	Benzo(a)anthracene	µg/L	39.0	46.2	21.4 - 57.2	Acceptable	EPA 8270C 3 1996	7/28/2014	0.174	38.3	4.12	
5585	Benzo(b)fluoranthene	µg/L	25.6	28.8	10.9 - 37.4	Acceptable	EPA 8270C 3 1996	7/28/2014	0.297	24.7	3.10	
5600	Benzo(k)fluoranthene	µg/L	26.1	28.9	6.24 - 45.3	Acceptable	EPA 8270C 3 1996	7/28/2014	0.134	25.6	3.70	
5590	Benzo(g,h,i)perylene	µg/L	24.4	26.7	11.1 - 36.1	Acceptable	EPA 8270C 3 1996	7/28/2014	0.184	23.8	3.27	
5580	Benzo(a)pyrene	µg/L	10.6	14.2	3.97 - 19.2	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.374	11.2	1.73	
5630	Benzyl alcohol	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	7/28/2014				
5660	4-Bromophenyl-phenylether	µg/L	46.9	57.7	24.1 - 75.3	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.0538	47.2	6.47	
5670	Butylbenzylphthalate	µg/L	< 5.00	< 13.4	0.00 - 13.4	Acceptable	EPA 8270C 3 1996	7/28/2014				
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	7/28/2014				
5760	bis(2-Chloroethoxy)methane	µg/L	67.9	83.2	29.4 - 98.3	Acceptable	EPA 8270C 3 1996	7/28/2014	0.237	65.6	9.90	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 8270C 3 1996	7/28/2014				
5780	bis(2-Chloroisopropyl)ether	µg/L	41.2	58.9	12.9 - 76.3	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.286	43.6	8.49	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	64.8	88.5	24.6 - 106	Acceptable	EPA 8270C 3 1996	7/28/2014	0.0683	64.0	11.9	
5825	4-Chlorophenyl-phenylether	µg/L	62.9	72.0	27.7 - 90.3	Acceptable	EPA 8270C 3 1996	7/28/2014	0.106	61.9	9.48	
5855	Chrysene	µg/L	15.0	15.2	7.96 - 21.6	Acceptable	EPA 8270C 3 1996	7/28/2014	0.353	14.3	2.02	
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 8270C 3 1996	7/28/2014				
5905	Dibenzofuran	µg/L	94.0	123	47.9 - 140	Acceptable	EPA 8270C 3 1996	7/28/2014	0.145	91.7	16.0	
5925	Di-n-butylphthalate	µg/L	65.3	77.0	28.1 - 102	Acceptable	EPA 8270C 3 1996	7/28/2014	0.0340	65.0	7.41	
4610	1,2-Dichlorobenzene	µg/L		80.1	8.67 - 94.9	Not Reported				47.9	16.8	
4615	1,3-Dichlorobenzene	µg/L		67.6	6.76 - 80.3	Not Reported				38.1	16.3	
4620	1,4-Dichlorobenzene	µg/L		139	13.9 - 153	Not Reported				76.7	31.1	
5945	3,3'-Dichlorobenzidine	µg/L	< 50.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	7/28/2014				
6070	Diethylphthalate	µg/L	91.6	109	19.9 - 150	Acceptable	EPA 8270C 3 1996	7/28/2014	0.319	87.4	13.1	
6135	Dimethylphthalate	µg/L	< 5.00	< 11.5	0.00 - 11.5	Acceptable	EPA 8270C 3 1996	7/28/2014				
6185	2,4-Dinitrotoluene	µg/L	32.6	43.2	15.4 - 56.5	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.01	37.8	5.12	
6190	2,6-Dinitrotoluene	µg/L	67.9	93.7	38.0 - 113	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.878	78.9	12.5	
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 8270C 3 1996	7/28/2014				
6065	bis(2-Ethylhexyl)phthalate	µg/L	35.2	41.1	12.7 - 58.7	Acceptable	EPA 8270C 3 1996	7/28/2014	0.0683	34.9	4.54	
6265	Fluoranthene	µg/L	67.4	78.3	36.2 - 96.4	Acceptable	EPA 8270C 3 1996	7/28/2014	0.0397	67.1	8.31	
6270	Fluorene	µg/L	68.8	84.3	35.4 - 101	Acceptable	EPA 8270C 3 1996	7/28/2014	0.00659	68.7	10.2	
6275	Hexachlorobenzene	µg/L	< 5.00	< 8.80	0.00 - 8.80	Acceptable	EPA 8270C 3 1996	7/28/2014				
4835	Hexachlorobutadiene	µg/L	< 10.0	< 4.30	0.00 - 4.30	Acceptable	EPA 8270C 3 1996	7/28/2014				

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	59.6	83.6	8.36 - 112	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.0000268	59.6	23.7	
4840	Hexachloroethane	µg/L	57.2	103	10.3 - 113	Acceptable	EPA 8270C 3 1996	7/28/2014	0.0246	56.6	26.4	
6315	Indeno(1,2,3-cd)pyrene	µg/L	< 10.0	< 9.20	0.00 - 9.20	Acceptable	EPA 8270C 3 1996	7/28/2014				
6320	Isophorone	µg/L	< 5.00	< 7.10	0.00 - 7.10	Acceptable	EPA 8270C 3 1996	7/28/2014				
6385	2-Methylnaphthalene	µg/L	< 5.00	< 2.00	0.00 - 2.00	Acceptable	EPA 8270C 3 1996	7/28/2014				
5005	Naphthalene	µg/L	89.5	123	29.5 - 144	Acceptable	EPA 8270C 3 1996	7/28/2014	0.121	86.7	23.0	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	7/28/2014				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	7/28/2014				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	7/28/2014				
5015	Nitrobenzene	µg/L	< 5.00	< 6.20	0.00 - 6.20	Acceptable	EPA 8270C 3 1996	7/28/2014				
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	88.2	116	11.6 - 131	Acceptable	EPA 8270C 3 1996	7/28/2014	0.815	65.9	27.4	
6535	N-Nitrosodiphenylamine	µg/L	< 5.00	< 5.60	0.00 - 5.60	Acceptable	EPA 8270C 3 1996	7/28/2014				
6545	N-Nitroso-di-n-propylamine	µg/L	53.3	72.0	23.2 - 90.6	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.686	58.8	7.98	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	< 5.00	< 4.70	0.00 - 4.70	Acceptable	EPA 8270C 3 1996	7/28/2014				
6665	Pyrene	µg/L	< 5.00	< 4.90	0.00 - 4.90	Acceptable	EPA 8270C 3 1996	7/28/2014				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	37.9	53.9	8.02 - 67.2	Acceptable	EPA 8270C 3 1996	7/28/2014	0.0711	37.0	12.5	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 50.0	< 30.0	0.00 - 30.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014				
5700	4-Chloro-3-methylphenol	µg/L	77.2	118	44.6 - 145	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.17	98.1	17.9	
5800	2-Chlorophenol	µg/L	69.8	108	31.0 - 129	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.711	82.8	18.4	
6000	2,4-Dichlorophenol	µg/L	105	166	53.5 - 197	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.09	135	27.6	
6005	2,6-Dichlorophenol	µg/L		191	57.5 - 237	Not Reported				164	39.8	
6130	2,4-Dimethylphenol	µg/L	36.2	57.1	16.5 - 72.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.737	43.4	9.76	
6360	4,6-Dinitro-2-methylphenol	µg/L	33.6	46.7	13.0 - 70.0	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.20	41.8	6.81	
6175	2,4-Dinitrophenol	µg/L	86.5	161	16.1 - 216	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.05	120	31.5	
6400	2-Methylphenol	µg/L	102	172	39.0 - 200	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.667	124	33.4	
6410	4-Methylphenol	µg/L	88.8	158	15.8 - 203	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.445	102	30.1	
6490	2-Nitrophenol	µg/L	81.0	141	47.6 - 170	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.40	115	24.4	
6500	4-Nitrophenol	µg/L	97.4	150	15.0 - 202	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.641	72.7	38.6	
6605	Pentachlorophenol	µg/L	113	177	61.7 - 237	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.47	145	21.9	
6625	Phenol	µg/L	69.6	121	12.1 - 163	Acceptable	EPA 625 Appendix A 1982	7/28/2014	0.201	62.2	36.7	
6735	2,3,4,6-Tetrachlorophenol	µg/L		40.5	14.1 - 53.6	Not Reported				35.9	5.72	
6835	2,4,5-Trichlorophenol	µg/L	61.0	85.7	31.4 - 107	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-0.920	72.3	12.3	
6840	2,4,6-Trichlorophenol	µg/L	70.1	101	37.7 - 123	Acceptable	EPA 625 Appendix A 1982	7/28/2014	-1.33	89.6	14.7	

WP-234 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 09/02/14
Study Dates: 07/14/14 - 08/28/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 50.0	< 30.0	0.00 - 30.0	Acceptable	EPA 8270C 3 1996	7/28/2014				
5700	4-Chloro-3-methylphenol	µg/L	77.2	118	44.6 - 145	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.17	98.1	17.9	
5800	2-Chlorophenol	µg/L	69.8	108	31.0 - 129	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.711	82.8	18.4	
6000	2,4-Dichlorophenol	µg/L	105	166	53.5 - 197	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.09	135	27.6	
6005	2,6-Dichlorophenol	µg/L		191	57.5 - 237	Not Reported				164	39.8	
6130	2,4-Dimethylphenol	µg/L	36.2	57.1	16.5 - 72.0	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.737	43.4	9.76	
6360	4,6-Dinitro-2-methylphenol	µg/L	33.6	46.7	13.0 - 70.0	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.20	41.8	6.81	
6175	2,4-Dinitrophenol	µg/L	86.5	161	16.1 - 216	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.05	120	31.5	
6400	2-Methylphenol	µg/L	102	172	39.0 - 200	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.667	124	33.4	
6410	4-Methylphenol	µg/L	88.8	158	15.8 - 203	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.445	102	30.1	
6490	2-Nitrophenol	µg/L	81.0	141	47.6 - 170	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.40	115	24.4	
6500	4-Nitrophenol	µg/L	97.4	150	15.0 - 202	Acceptable	EPA 8270C 3 1996	7/28/2014	0.641	72.7	38.6	
6605	Pentachlorophenol	µg/L	113	177	61.7 - 237	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.47	145	21.9	
6625	Phenol	µg/L	69.6	121	12.1 - 163	Acceptable	EPA 8270C 3 1996	7/28/2014	0.201	62.2	36.7	
6735	2,3,4,6-Tetrachlorophenol	µg/L		40.5	14.1 - 53.6	Not Reported				35.9	5.72	
6835	2,4,5-Trichlorophenol	µg/L	61.0	85.7	31.4 - 107	Acceptable	EPA 8270C 3 1996	7/28/2014	-0.920	72.3	12.3	
6840	2,4,6-Trichlorophenol	µg/L	70.1	101	37.7 - 123	Acceptable	EPA 8270C 3 1996	7/28/2014	-1.33	89.6	14.7	

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

090514F3 Final Report

QuiK™ Response Proficiency Testing

Project # :090514F3

ERA
A Waters Company

2009 TNI Evaluation Report

Project Number: **090514F3**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

090514F3 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Mercury (cat# 514) Study Dates: 09/05/14 - 10/09/14												
1095	Mercury	µg/L	3.92	3.61	2.53 - 4.69	Acceptable	EPA 245.1 3 1994	10/7/2014	0.929	3.63	0.313	
WP Mercury (cat# 514) Study Dates: 09/05/14 - 10/09/14												
1095	Mercury	µg/L	3.92	3.61	2.53 - 4.69	Acceptable	EPA 7470A 1 1994	10/7/2014	0.929	3.63	0.313	
WP Total Phenolics (4-AAP) (cat# 515) Study Dates: 09/05/14 - 10/09/14												
1905	Phenolics, total	mg/L	1.47	1.31	0.659 - 1.95	Acceptable	EPA 420.4 1 1993	10/4/2014	0.456	1.35	0.256	
WP Total Phenolics (4-AAP) (cat# 515) Study Dates: 09/05/14 - 10/09/14												
1905	Phenolics, total	mg/L	1.47	1.31	0.659 - 1.95	Acceptable	EPA 420.1 1978	10/4/2014	0.456	1.35	0.256	
WP Total Phenolics (4-AAP) (cat# 515) Study Dates: 09/05/14 - 10/09/14												
1905	Phenolics, total	mg/L	1.47	1.31	0.659 - 1.95	Acceptable	EPA 9066 1986	10/4/2014	0.456	1.35	0.256	

Corrective Action Report

For Not Acceptable Value Reported

PT Study: **ERA WP-234 July 2014 PT Study**

Corrective Action Report No.: 1

eurofins | Eaton Analytical

Sample Information

Department:	Metals	
Method(s):	EPA 245.1	
Analyte(s):	Mercury	
Sample ID:	WP Mercury	
Sample No.:	201407170304	
Group No.:	489978	
Date Analyzed:	7/24/2014	
Analyst:	Michael Hu	
Reported Value:	7.47	ug/L
True Value:	12.2	ug/L
% Recovery:	61%	
Acceptance Limits:		8.54 -15.9 ug/L (70-130%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	107%
LCS2	100%
RPD_LCS	7%
MS	95%
MSD	95%
RPD_MS	0%

Problem Identification (Root Cause Analysis)

- ____ Dilution Error
- ____ QC Limits not met
- ____ SOP not followed
- ____ Calculation Error
- ____ Lab Contamination
- ____ Log in Error
- ____ Training
- ____ Reporting Error
- ____ Instrument Problems
- ____ Standards Problems
- **X** Other

Multiple dilutions were prepared and digested due to wide PT range. Dilutions were mixed up for analysis and incorrect dilution factor was applied.

Internal QC Check

Result =	20.1	ug/L
Spike Value =	19.7	ug/L
% Recovery =	102%	
Acceptance Limits	15.7-23.8	
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Until analyst shows a greater attention to detail, multiple dilutions will not be prepared for PT samples based on expected concentration. This will prevent the accidental usage of incorrect dilutions for sample analysis, and more closely mimic real samples, in which expected concentrations are not known. Because of this change, and the possiblilty of PT reruns, the analyst will need to run the PT sample as soon as it arrives in the event another dilution and digestion is needed.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 090514F3 as make up study. Result of the make up PT was acceptable.

Analyst : _____ Date: 10/10/14
Michael Hu

Technical Manager: Ken M. Hamming for Walter Hsieh Date: 10 Oct 14
Walter Hsieh

Quality Manager: Nilda Cox Date: 10/10/2014
Nilda Cox

Laboratory Director: M Haley Date: 10/10/2014
Fred Haley

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WP-234 July 2014 PT Study**

Corrective Action Report No.: 2

eurofins | Eaton Analytical

Sample Information

Department:	Inorganics	
Method(s):	EPA 420.4 / 420.1 / 9066	
Analyte(s):	Total Phenolics	
Sample ID:	WP Total Phenolics	
Sample No.:	201407170310	
Group No.:	489978	
Date Analyzed:	8/6/2014	
Analyst:	Kenny Siu	
Reported Value:	4.80	mg/L
True Value:	0.576	mg/L
% Recovery:	833%	
Acceptance Limits:		0.284 - 0.868 mg/L
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	100%
LCS2	102%
RPD_LCS	2.47%
MS	25.1%
MSD	20.1%
RPD_MS	3.51%

Problem Identification (Root Cause Analysis)

	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed	X	Other
	Calculation Error		*See attached*
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check

Result =	0.862	mg/L
Spike Value =	1.14	mg/L
% Recovery =	76%	
Limits:	0.412-1.1	mg/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

When re-running samples due to the results exceeding the calibration range of the instrument, analysts will compare results to the original run(s) and document the comparison on the reported data package. The comparison and subsequent documentation must be explicit, stating original values, injection numbers, and/or anything else necessary to show a reviewer that the comparison has been made.

Follow-up Schedule / Track Progress:

Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 090514F3 as make up study. Result of the make up PT was acceptable.

Analyst : Kenny Siu — Date: 10/10/14

Technical Manager: Walter Hsieh — Date: 10 Oct 14

Quality Manager: Nilda Cox — Date: 10/10/2014

Laboratory Director: Fred Haley — Date: 10/10/2014

Phenolic PT failure Cause:

Analyst prepared the PT sample per PT preparation instructions provided by ERA. Analyst's plan was to distill the sample at a 10x dilution, based on the expected range and the original result from a 7.22.14 analysis of the PT sample, which produced results which were beyond the calibration range of the instrument .

Analyst prepped the 10x dilution sample, but he used the original stock solution by accident for distillation instead. An additional 5x dilution was made during the analysis after the raw result was over the calibration range, also from the original stock.

The raw result for the supposed 10x distilled sample was 0.472 mg/L. The calibration limit is 0.2 mg/L. Analyst reran the sample with additional 5X dilution (for a supposed total of 50x) which had the raw result of 0.0959 mg/L and final result of 4.795 mg/L. The final result of 4.795 mg/L was reported.

Prevention

When re-running samples due to the results exceeding the calibration range of the instrument, analysts will compare results to the original run(s) and document the comparison on the reported data package. The comparison and subsequent documentation must be explicit, stating original values, injection numbers, and/or anything else necessary to show a reviewer that the comparison has been made.

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016

WS-210 Final Report

WatR™ Supply Proficiency Testing

WatR™ Supply Study

Open Date: 01/06/14

Close Date: 02/20/14

Report Issued Date: 02/24/14

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-210**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hardness (cat# 555)												
1035	Calcium	mg/L	63.4	64.5	54.8 - 74.2	Acceptable	EPA 200.7 4.4 1994	1/22/2014	-0.593	65.1	2.88	
1085	Magnesium	mg/L	17.6	17.7	15.0 - 20.4	Acceptable	EPA 200.7 4.4 1994	1/22/2014	-0.131	17.7	0.845	
1155	Sodium	mg/L	26.6	26.1	22.2 - 30.0	Acceptable	EPA 200.7 4.4 1994	1/22/2014	0.0554	26.5	1.37	
1550	Calcium Hardness as CaCO3	mg/L	158	161	137 - 185	Acceptable	EPA 200.7 4.4 1994	1/23/2014	-0.552	162	6.81	
1755	Total Hardness as CaCO3	mg/L	231	234	199 - 269	Acceptable	EPA 200.7 4.4 1994	1/23/2014	-0.358	234	7.90	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		64.5	54.8 - 74.2	Not Reported				65.1	2.88	
1085	Magnesium	mg/L		17.7	15.0 - 20.4	Not Reported				17.7	0.845	
1155	Sodium	mg/L		26.1	22.2 - 30.0	Not Reported				26.5	1.37	
1550	Calcium Hardness as CaCO3	mg/L	158	161	137 - 185	Acceptable	SM2340B 22nd ED 2011	1/23/2014	-0.552	162	6.81	
1755	Total Hardness as CaCO3	mg/L	231	234	199 - 269	Acceptable	SM2340B 22nd ED 2011	1/23/2014	-0.358	234	7.90	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		64.5	54.8 - 74.2	Not Reported				65.1	2.88	
1085	Magnesium	mg/L		17.7	15.0 - 20.4	Not Reported				17.7	0.845	
1155	Sodium	mg/L		26.1	22.2 - 30.0	Not Reported				26.5	1.37	
1550	Calcium Hardness as CaCO3	mg/L	158	161	137 - 185	Acceptable	SM2340B 20th ED 1997	1/23/2014	-0.552	162	6.81	
1755	Total Hardness as CaCO3	mg/L	231	234	199 - 269	Acceptable	SM2340B 20th ED 1997	1/23/2014	-0.358	234	7.90	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	67.0	69.9	62.9 - 76.9	Acceptable	SM2320B 22nd ED 2011	1/23/2014	-1.24	70.3	2.69	
1575	Chloride	mg/L	45.3	45.9	39.0 - 52.8	Acceptable	EPA 300.0 2.1 1993	1/22/2014	0.0658	45.2	1.76	
1610	Conductivity at 25°C	µmhos/cm	454	437	393 - 481	Acceptable	SM2510B 22nd ED 2011	1/22/2014	0.193	452	9.40	
1730	Fluoride	mg/L	1.88	2.00	1.80 - 2.20	Acceptable	EPA 300.0 2.1 1993	2/18/2014	-0.448	1.93	0.116	
1820	Nitrate + Nitrite as N	mg/L	4.41	4.54	3.86 - 5.22	Acceptable	EPA 300.0 2.1 1993	1/22/2014	-0.188	4.46	0.250	
1810	Nitrate as N	mg/L	4.41	4.54	4.09 - 4.99	Acceptable	EPA 300.0 2.1 1993	1/22/2014	-0.0936	4.43	0.248	
1125	Potassium	mg/L	16.6	16.8	14.3 - 19.3	Acceptable	EPA 200.7 4.4 1994	1/23/2014	-0.154	16.8	1.20	
2000	Sulfate	mg/L	52.6	53.3	45.3 - 61.3	Acceptable	EPA 300.0 2.1 1993	1/22/2014	0.00655	52.6	2.18	
1955	Total Dissolved Solids at 180°C	mg/L	312	330	264 - 396	Acceptable	SM2540C 22nd ED 2011	1/23/2014	-1.05	332	18.8	
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	67.0	69.9	62.9 - 76.9	Acceptable	SM2320B 20th ED 1997	1/23/2014	-1.24	70.3	2.69	
1575	Chloride	mg/L		45.9	39.0 - 52.8	Not Reported				45.2	1.76	
1610	Conductivity at 25°C	µmhos/cm	454	437	393 - 481	Acceptable	SM2510B 20th ED 1997	1/22/2014	0.193	452	9.40	
1730	Fluoride	mg/L	1.94	2.00	1.80 - 2.20	Acceptable	SM4500F- C 22nd ED 2011	1/23/2014	0.0700	1.93	0.116	
1820	Nitrate + Nitrite as N	mg/L	4.59	4.54	3.86 - 5.22	Acceptable	EPA 353.2 2 1993	1/23/2014	0.531	4.46	0.250	
1810	Nitrate as N	mg/L	4.59	4.54	4.09 - 4.99	Acceptable	EPA 353.2 2 1993	1/23/2014	0.631	4.43	0.248	
1125	Potassium	mg/L		16.8	14.3 - 19.3	Not Reported				16.8	1.20	
2000	Sulfate	mg/L		53.3	45.3 - 61.3	Not Reported				52.6	2.18	
1955	Total Dissolved Solids at 180°C	mg/L	312	330	264 - 396	Acceptable	SM2540C 20th ED 1997	1/23/2014	-1.05	332	18.8	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L		69.9	62.9 - 76.9	Not Reported				70.3	2.69	
1575	Chloride	mg/L		45.9	39.0 - 52.8	Not Reported				45.2	1.76	
1610	Conductivity at 25°C	µmhos/cm		437	393 - 481	Not Reported				452	9.40	
1730	Fluoride	mg/L	1.94	2.00	1.80 - 2.20	Acceptable	SM4500F- C 20th ED 1997	1/23/2014	0.0700	1.93	0.116	
1820	Nitrate + Nitrite as N	mg/L		4.54	3.86 - 5.22	Not Reported				4.46	0.250	
1810	Nitrate as N	mg/L		4.54	4.09 - 4.99	Not Reported				4.43	0.248	
1125	Potassium	mg/L		16.8	14.3 - 19.3	Not Reported				16.8	1.20	
2000	Sulfate	mg/L		53.3	45.3 - 61.3	Not Reported				52.6	2.18	
1955	Total Dissolved Solids at 180°C	mg/L		330	264 - 396	Not Reported				332	18.8	
WS pH (cat# 552)												
1900	pH	S.U.	5.72	5.75	5.55 - 5.95	Acceptable	EPA 150.1 1983	1/30/2014	-0.0816	5.72	0.0457	
WS pH (cat# 552)												
1900	pH	S.U.	5.72	5.75	5.55 - 5.95	Acceptable	SM4500H+ B 22nd ED 2011	1/30/2014	-0.0816	5.72	0.0457	
WS pH (cat# 552)												
1900	pH	S.U.	5.72	5.75	5.55 - 5.95	Acceptable	SM4500H+ B 20th ED 1996	1/30/2014	-0.0816	5.72	0.0457	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	570	611	519 - 703	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.15	614	37.8	
1005	Antimony	µg/L		30.8	21.6 - 40.0	Not Reported				30.6	2.15	
1010	Arsenic	µg/L		31.4	22.0 - 40.8	Not Reported				31.1	1.81	
1015	Barium	µg/L	2400	2460	2090 - 2830	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.514	2460	115	
1020	Beryllium	µg/L	12.7	13.2	11.2 - 15.2	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.06	13.6	0.880	
1025	Boron	µg/L	746	801	681 - 921	Acceptable	EPA 200.7 4.4 1994	2/14/2014	-1.39	808	44.5	
1030	Cadmium	µg/L	5.02	5.16	4.13 - 6.19	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.857	5.34	0.374	
1040	Chromium	µg/L	49.0	51.5	43.8 - 59.2	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.862	51.4	2.77	
1055	Copper	µg/L	180	190	171 - 209	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.26	191	8.79	
1070	Iron	µg/L	536	545	463 - 627	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.473	549	27.8	
1075	Lead	µg/L		32.4	22.7 - 42.1	Not Reported				32.3	2.17	
1090	Manganese	µg/L	404	395	336 - 454	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.0898	406	18.0	
1100	Molybdenum	µg/L	25.3	26.9	22.9 - 30.9	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.845	26.7	1.63	
1105	Nickel	µg/L	406	410	348 - 472	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.0989	408	20.8	
1140	Selenium	µg/L		46.2	37.0 - 55.4	Not Reported				45.5	3.94	
1150	Silver	µg/L	23.5	23.5	16.4 - 30.6	Acceptable	EPA 200.7 4.4 1994	1/27/2014	0.0956	23.4	1.56	
1165	Thallium	µg/L		5.10	3.57 - 6.63	Not Reported				5.02	0.372	
1185	Vanadium	µg/L	634	693	589 - 797	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.80	691	31.6	
1190	Zinc	µg/L	970	1040	884 - 1200	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.18	1040	56.9	

WS-210 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	550	611	519 - 703	Acceptable	EPA 200.8 5.4 1994	2/13/2014	-1.68	614	37.8	
1005	Antimony	µg/L	27.6	30.8	21.6 - 40.0	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-1.41	30.6	2.15	
1010	Arsenic	µg/L	27.5	31.4	22.0 - 40.8	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-1.97	31.1	1.81	
1015	Barium	µg/L	2400	2460	2090 - 2830	Acceptable	EPA 200.8 5.4 1994	2/13/2014	-0.514	2460	115	
1020	Beryllium	µg/L	12.8	13.2	11.2 - 15.2	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-0.948	13.6	0.880	
1025	Boron	µg/L		801	681 - 921	Not Reported				808	44.5	
1030	Cadmium	µg/L	4.91	5.16	4.13 - 6.19	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-1.15	5.34	0.374	
1040	Chromium	µg/L	44.1	51.5	43.8 - 59.2	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-2.63	51.4	2.77	
1055	Copper	µg/L	165	190	171 - 209	Not Acceptable	EPA 200.8 5.4 1994	1/27/2014	-2.97	191	8.79	
1070	Iron	µg/L		545	463 - 627	Not Reported				549	27.8	
1075	Lead	µg/L	28.1	32.4	22.7 - 42.1	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-1.95	32.3	2.17	
1090	Manganese	µg/L	392	395	336 - 454	Acceptable	EPA 200.8 5.4 1994	2/13/2014	-0.755	406	18.0	
1100	Molybdenum	µg/L	23.6	26.9	22.9 - 30.9	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-1.89	26.7	1.63	
1105	Nickel	µg/L	387	410	348 - 472	Acceptable	EPA 200.8 5.4 1994	2/13/2014	-1.01	408	20.8	
1140	Selenium	µg/L	42.7	46.2	37.0 - 55.4	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-0.714	45.5	3.94	
1150	Silver	µg/L	24.5	23.5	16.4 - 30.6	Acceptable	EPA 200.8 5.4 1994	2/13/2014	0.736	23.4	1.56	
1165	Thallium	µg/L	4.69	5.10	3.57 - 6.63	Acceptable	EPA 200.8 5.4 1994	1/27/2014	-0.888	5.02	0.372	
1185	Vanadium	µg/L	688	693	589 - 797	Acceptable	EPA 200.8 5.4 1994	2/13/2014	-0.0921	691	31.6	
1190	Zinc	µg/L	970	1040	884 - 1200	Acceptable	EPA 200.8 5.4 1994	2/13/2014	-1.18	1040	56.9	
WS Mercury (cat# 551)												
1095	Mercury	µg/L	2.53	2.43	1.70 - 3.16	Acceptable	EPA 245.1 3 1994	1/17/2014	0.566	2.41	0.213	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	14.1	14.8	11.8 - 17.8	Acceptable	EPA 218.6 3.3 1994	1/24/2014	-0.0223	14.1	1.10	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	14.1	14.8	11.8 - 17.8	Acceptable	EPA 218.7 1 2011	1/24/2014	-0.0223	14.1	1.10	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	13.0	14.8	11.8 - 17.8	Acceptable	SM3500Cr B 22nd ED 2011	1/21/2014	-1.03	14.1	1.10	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	13.0	14.8	11.8 - 17.8	Acceptable	SM3500Cr B 20th ED 1997	1/21/2014	-1.03	14.1	1.10	
WS Vanadium (cat# 856)												
1185	Vanadium	µg/L	11.2	12.9	11.3 - 14.4	Not Acceptable	EPA 200.8 5.4 1994	1/27/2014	-1.78	13.2	1.14	
WS Vanadium (cat# 856)												
1185	Vanadium	µg/L	12.1	12.9	11.3 - 14.4	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.988	13.2	1.14	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	170	172	120 - 224	Acceptable	EPA 300.1 1 2000	1/29/2014	0.0428	170	5.89	
1595	Chlorite	µg/L	629	614	430 - 798	Acceptable	EPA 300.1 1 2000	1/29/2014	-0.149	635	43.2	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	174	172	120 - 224	Acceptable	EPA 300.0 2.1 1993	1/27/2014	0.722	170	5.89	
1595	Chlorite	µg/L	648	614	430 - 798	Acceptable	EPA 300.0 2.1 1993	1/27/2014	0.292	635	43.2	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	170	172	120 - 224	Acceptable	EPA 300.1 1997	1/29/2014	0.0428	170	5.89	
1595	Chlorite	µg/L	629	614	430 - 798	Acceptable	EPA 300.1 1997	1/29/2014	-0.149	635	43.2	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	174	172	120 - 224	Acceptable	EPA 9056 1996	1/27/2014	0.722	170	5.89	
1595	Chlorite	µg/L		614	430 - 798	Not Reported				635	43.2	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	45.7	47.0	32.9 - 61.1	Acceptable	EPA 300.1 1 2000	1/29/2014	-0.349	46.6	2.50	
1540	Bromide	µg/L	273	270	230 - 310	Acceptable	EPA 300.1 1 2000	1/29/2014	-0.00328	273	18.3	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	45.7	47.0	32.9 - 61.1	Acceptable	EPA 300.1 1997	1/29/2014	-0.349	46.6	2.50	
1540	Bromide	µg/L	273	270	230 - 310	Acceptable	EPA 300.1 1997	1/29/2014	-0.00328	273	18.3	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L		47.0	32.9 - 61.1	Not Reported				46.6	2.50	
1540	Bromide	µg/L	275	270	230 - 310	Acceptable	EPA 300.0 2.1 1993	1/27/2014	0.106	273	18.3	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	48.5	47.0	32.9 - 61.1	Acceptable	EPA 317.0 2	1/29/2014	0.769	46.6	2.50	
1540	Bromide	µg/L		270	230 - 310	Not Reported				273	18.3	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	1.91	1.87	1.59 - 2.15	Acceptable	EPA 300.0 2.1 1993	1/14/2014	0.380	1.88	0.0857	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	1.82	1.87	1.59 - 2.15	Acceptable	EPA 300.1 1 2000	1/14/2014	-0.670	1.88	0.0857	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	1.82	1.87	1.59 - 2.15	Acceptable	EPA 300.1 1997	1/14/2014	-0.670	1.88	0.0857	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	1.86	1.87	1.59 - 2.15	Acceptable	EPA 353.2 2 1993	1/14/2014	-0.203	1.88	0.0857	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.10	2.11	1.79 - 2.43	Acceptable	EPA 365.1 2 1993	1/24/2014	-0.282	2.13	0.113	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.10	2.11	1.79 - 2.43	Acceptable	SM4500P E 22nd ED 2011	1/24/2014	-0.282	2.13	0.113	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.10	2.11	1.79 - 2.43	Acceptable	SM4500P E 20th ED 1997	1/24/2014	-0.282	2.13	0.113	
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	0.780	0.818	0.642 - 0.995	Acceptable	SM4500Cl G 22nd ED 2011	1/20/2014	-0.142	0.790	0.0693	
1940	Total Residual Chlorine	mg/L	0.830	0.818	0.682 - 0.944	Acceptable	SM4500Cl G 22nd ED 2011	1/20/2014	0.271	0.816	0.0529	
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	0.780	0.818	0.642 - 0.995	Acceptable	SM4500Cl G 20th ED 1993	1/20/2014	-0.142	0.790	0.0693	
1940	Total Residual Chlorine	mg/L	0.830	0.818	0.682 - 0.944	Acceptable	SM4500Cl G 20th ED 1993	1/20/2014	0.271	0.816	0.0529	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.232	0.251	0.188 - 0.314	Acceptable	EPA 335.4 1993	1/29/2014	-0.643	0.247	0.0239	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.330	0.251	0.188 - 0.314	Not Acceptable	SM4500CN F 22nd ED 2011	1/20/2014	3.45	0.247	0.0239	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.330	0.251	0.188 - 0.314	Not Acceptable	SM4500CN F 20th ED 1997	1/20/2014	3.45	0.247	0.0239	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.227	0.251	0.188 - 0.314	Acceptable	SM4500CN G 20th ED 1997	1/29/2014	-0.852	0.247	0.0239	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.227	0.251	0.188 - 0.314	Acceptable	SM4500CN G 22nd ED 2011	1/29/2014	-0.852	0.247	0.0239	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	5.42	10.4	9.25 - 11.4	Not Acceptable	SM5310C 22nd ED 2011	1/27/2014	-10.3	10.4	0.485	
2040	Total Organic Carbon (TOC)	mg/L	5.34	10.4	8.32 - 12.5	Not Acceptable	SM5310C 22nd ED 2011	1/27/2014	-10.2	10.5	0.504	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	5.42	10.4	9.25 - 11.4	Not Acceptable	SM5310C 20th ED 1996	1/27/2014	-10.3	10.4	0.485	
2040	Total Organic Carbon (TOC)	mg/L	5.34	10.4	8.32 - 12.5	Not Acceptable	SM5310C 20th ED 1996	1/27/2014	-10.2	10.5	0.504	
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	18.3	17.9	14.3 - 21.5	Acceptable	EPA 314.0 1 1999	1/29/2014	0.449	17.8	1.07	
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	17.7	17.9	14.3 - 21.5	Acceptable	EPA 331.0 1.0 2005	2/3/2014	-0.110	17.8	1.07	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	18.2	17.3	14.7 - 19.9	Acceptable	EPA 200.7 4.4 1994	1/22/2014	0.766	17.5	0.906	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	17.2	17.3	14.7 - 19.9	Acceptable	SM4500SiO2 C 22nd ED 2011	1/21/2014	-0.337	17.5	0.906	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	17.2	17.3	14.7 - 19.9	Acceptable	SM4500SiO2 C 20th ED 1997	1/21/2014	-0.337	17.5	0.906	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	17.2	17.3	14.7 - 19.9	Acceptable	SM4500Si D 19th ED 1993	1/21/2014	-0.337	17.5	0.906	
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.388	0.408	0.281 - 0.530	Acceptable	SM5540C 22nd ED 2011	1/23/2014	-0.428	0.415	0.0634	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.388	0.408	0.281 - 0.530	Acceptable	SM5540C 20th ED 1993	1/23/2014	-0.428	0.415	0.0634	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	2.24	2.03	1.63 - 2.43	Acceptable	SM2330B 21st ED 2000	1/23/2014	1.07	2.03	0.197	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	2.24	2.03	1.63 - 2.43	Acceptable	SM2330B 20th ED 1993	1/23/2014	1.07	2.03	0.197	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	2.24	2.03	1.63 - 2.43	Acceptable	EPA 9040C 2002	1/23/2014	1.07	2.03	0.197	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	3.45	3.35	2.82 - 3.84	Acceptable	EPA 180.1 2 1993	1/28/2014	0.428	3.36	0.203	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	3.45	3.35	2.82 - 3.84	Acceptable	SM2130B 22nd ED 2011	1/28/2014	0.428	3.36	0.203	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	3.45	3.35	2.82 - 3.84	Acceptable	SM2130B 20th ED 1994	1/28/2014	0.428	3.36	0.203	
WS Color (cat# 859)												
1605	Color	PC units	30.0	30.0	20.0 - 40.0	Acceptable	SM2120B 22nd ED 2011	1/15/2014	0.453	28.3	3.84	
WS Color (cat# 859)												
1605	Color	PC units	30.0	30.0	20.0 - 40.0	Acceptable	SM2120B 20th ED 1993	1/15/2014	0.453	28.3	3.84	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.0985	0.0874	0.0689 - 0.113	Acceptable	SM5910B 22nd ED 2011	1/16/2014	0.824	0.0899	0.0104	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.0985	0.0874	0.0689 - 0.113	Acceptable	SM5910B 20th ED 1994	1/16/2014	0.824	0.0899	0.0104	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-210**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/7/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/7/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 3, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 6 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/7/2014	0			
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/7/2014	0			
2530	Fecal Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2530	Fecal Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2530	Fecal Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2530	Fecal Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2530	Fecal Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/5/2014	0			
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	2/5/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 3, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 6 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 3, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 6 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/7/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/7/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 3, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 6 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/7/2014	0			
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/7/2014	0			
2530	Fecal Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2530	Fecal Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2530	Fecal Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2530	Fecal Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2530	Fecal Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	2/5/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 3, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 6 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 3, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 6 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 5, 6 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 2, 7 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 4
Blank - No Organism, Samples 1 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 5, 6 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 2, 7 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 4
Blank - No Organism, Samples 1 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/10/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 5, 6 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 2, 7 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 4
Blank - No Organism, Samples 1 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 5, 6 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 2, 7 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 4
Blank - No Organism, Samples 1 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 5, 6 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 2, 7 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 4
Blank - No Organism, Samples 1 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 5, 6 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 2, 7 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 4
Blank - No Organism, Samples 1 and 8

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 9

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 9

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 9

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 9

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 9

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 9

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 8
Total Coliform Organism - Enterobacter cloacae, Samples 2, 4 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 8
Total Coliform Organism - Enterobacter cloacae, Samples 2, 4 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 8
Total Coliform Organism - Enterobacter cloacae, Samples 2, 4 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 8
Total Coliform Organism - Enterobacter cloacae, Samples 2, 4 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 8
Total Coliform Organism - Enterobacter cloacae, Samples 2, 4 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/10/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 8
Total Coliform Organism - Enterobacter cloacae, Samples 2, 4 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	49.0	58.0	26.7 - 86.2	Acceptable	SM9223B MPN online	1/23/2014	0.0713	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	49.0	58.0	25.9 - 85.5	Acceptable	SM9223B MPN online	1/23/2014	0.130	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	49.0	58.0	26.7 - 86.2	Acceptable	SM9223B MPN 20th ED 1997	1/23/2014	0.0713	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	49.0	58.0	25.9 - 85.5	Acceptable	SM9223B MPN 20th ED 1997	1/23/2014	0.130	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	49.0	58.0	26.7 - 86.2	Acceptable	SM9223 COLert18 online	1/23/2014	0.0713	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	49.0	58.0	25.9 - 85.5	Acceptable	SM9223 COLert18 online	1/23/2014	0.130	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	49.0	58.0	26.7 - 86.2	Acceptable	SM9223 COLert18 20th ED 1997	1/23/2014	0.0713	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	49.0	58.0	25.9 - 85.5	Acceptable	SM9223 COLert18 20th ED 1997	1/23/2014	0.130	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	45.0	58.0	26.7 - 86.2	Acceptable	SM9223 COLertQT online	1/23/2014	-0.198	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	45.0	58.0	25.9 - 85.5	Acceptable	SM9223 COLertQT online	1/23/2014	-0.138	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	45.0	58.0	26.7 - 86.2	Acceptable	SM9223 COLertQT 20th ED 1998	1/23/2014	-0.198	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	45.0	58.0	25.9 - 85.5	Acceptable	SM9223 COLertQT 20th ED 1998	1/23/2014	-0.138	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	46.4	58.0	26.7 - 86.2	Acceptable	SM9223 COLt18QT online	1/23/2014	-0.104	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	46.4	58.0	25.9 - 85.5	Acceptable	SM9223 COLt18QT online	1/23/2014	-0.0441	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		50.0	17.0 - 62.0	Not Reported				32.6	11.4	
2530	Fecal Coliforms (MF)	CFU/100mL		50.0	5.00 - 48.0	Not Reported				16.0	10.7	
2525	E.coli (MF)	CFU/100mL		50.0	14.0 - 67.0	Not Reported				30.3	13.4	
2500	Total Coliforms (MPN)	MPN/100mL	46.4	58.0	26.7 - 86.2	Acceptable	SM9223 COLt18QT 20th ED 1998	1/23/2014	-0.104	47.9	14.9	
2530	Fecal Coliforms (MPN)	MPN/100mL		58.0	13.6 - 118	Not Reported				39.9	26.0	
2525	E.coli (MPN)	MPN/100mL	46.4	58.0	25.9 - 85.5	Acceptable	SM9223 COLt18QT 20th ED 1998	1/23/2014	-0.0441	47.1	14.9	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	130	155	84.0 - 155	Acceptable	SM9215B PCA 21st ED 2000	1/23/2014	0.902	114	17.5	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		152	55.2 - 193	Not Reported				103	34.5	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	130	155	84.0 - 155	Acceptable	SM9215B PCA 20th ED 1998	1/23/2014	0.902	114	17.5	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		152	55.2 - 193	Not Reported				103	34.5	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-210**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chloral Hydrate (cat# 853)												
4460	Chloral Hydrate	µg/L	9.57	7.40	0.963 - 12.0	Acceptable	EPA 551.1 1 1992	1/24/2014	0.707	8.48	1.54	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	13.6	13.0	7.80 - 18.2	Acceptable	SM 6251 B 22nd ED 2007	1/10/2014	0.459	13.0	1.23	
9315	Bromochloroacetic acid	µg/L	7.47	7.19	4.31 - 10.1	Acceptable	SM 6251 B 22nd ED 2007	1/10/2014	0.586	7.06	0.707	
9336	Chloroacetic acid	µg/L	42.4	39.0	23.4 - 54.6	Acceptable	SM 6251 B 22nd ED 2007	1/10/2014	1.19	36.7	4.83	
9357	Dibromoacetic acid	µg/L	28.9	28.9	17.3 - 40.5	Acceptable	SM 6251 B 22nd ED 2007	1/10/2014	0.353	27.5	4.07	
9360	Dichloroacetic acid	µg/L	29.8	30.1	18.1 - 42.1	Acceptable	SM 6251 B 22nd ED 2007	1/10/2014	0.620	28.0	2.97	
9642	Trichloroacetic acid	µg/L	15.2	14.7	8.82 - 20.6	Acceptable	SM 6251 B 22nd ED 2007	1/10/2014	0.431	14.4	1.94	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	13.6	13.0	7.80 - 18.2	Acceptable	SM 6251 B 21st ED 1994	1/10/2014	0.459	13.0	1.23	
9315	Bromochloroacetic acid	µg/L	7.47	7.19	4.31 - 10.1	Acceptable	SM 6251 B 21st ED 1994	1/10/2014	0.586	7.06	0.707	
9336	Chloroacetic acid	µg/L	42.4	39.0	23.4 - 54.6	Acceptable	SM 6251 B 21st ED 1994	1/10/2014	1.19	36.7	4.83	
9357	Dibromoacetic acid	µg/L	28.9	28.9	17.3 - 40.5	Acceptable	SM 6251 B 21st ED 1994	1/10/2014	0.353	27.5	4.07	
9360	Dichloroacetic acid	µg/L	29.8	30.1	18.1 - 42.1	Acceptable	SM 6251 B 21st ED 1994	1/10/2014	0.620	28.0	2.97	
9642	Trichloroacetic acid	µg/L	15.2	14.7	8.82 - 20.6	Acceptable	SM 6251 B 21st ED 1994	1/10/2014	0.431	14.4	1.94	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	34.3	40.0	29.9 - 50.9	Acceptable	EPA 524.3 1 2009	2/6/2014	-1.57	39.8	3.49	
4420	Tert-Butyl Alcohol	µg/L		43.5	25.9 - 60.6	Not Reported				37.5	8.07	
5000	tert-Butyl methyl ether (MTBE)	µg/L	20.0	18.6	14.9 - 22.3	Acceptable	EPA 524.3 1 2009	2/6/2014	0.806	18.5	1.82	
9375	Di-isopropylether (DIPE)	µg/L	38.5	42.0	34.1 - 52.4	Acceptable	EPA 524.3 1 2009	2/6/2014	-0.743	41.0	3.31	
4770	Ethyl-t-butylether (ETBE)	µg/L	44.0	47.9	37.8 - 61.8	Acceptable	EPA 524.3 1 2009	2/6/2014	-0.672	48.0	5.91	
5175	Trichlorofluoromethane (Freon 11)	µg/L	42.0	49.5	29.7 - 69.3	Acceptable	EPA 524.3 1 2009	2/6/2014	-1.11	50.2	7.46	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	26.6	31.3	20.9 - 41.7	Acceptable	EPA 524.3 1 2009	2/6/2014	-1.94	33.9	3.77	
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	42.0	40.0	29.9 - 50.9	Acceptable	EPA 524.2 4.1 1995	2/13/2014	0.632	39.8	3.49	
4420	Tert-Butyl Alcohol	µg/L	67.5	43.5	25.9 - 60.6	Not Acceptable	EPA 524.2 4.1 1995	2/14/2014	3.72	37.5	8.07	
5000	tert-Butyl methyl ether (MTBE)	µg/L	17.7	18.6	14.9 - 22.3	Acceptable	EPA 524.2 4.1 1995	2/13/2014	-0.460	18.5	1.82	
9375	Di-isopropylether (DIPE)	µg/L	41.6	42.0	34.1 - 52.4	Acceptable	EPA 524.2 4.1 1995	2/13/2014	0.194	41.0	3.31	
4770	Ethyl-t-butylether (ETBE)	µg/L	50.0	47.9	37.8 - 61.8	Acceptable	EPA 524.2 4.1 1995	2/13/2014	0.343	48.0	5.91	
5175	Trichlorofluoromethane (Freon 11)	µg/L	44.9	49.5	29.7 - 69.3	Acceptable	EPA 524.2 4.1 1995	2/13/2014	-0.717	50.2	7.46	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	29.1	31.3	20.9 - 41.7	Acceptable	EPA 524.2 4.1 1995	2/13/2014	-1.27	33.9	3.77	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	19.9	25.9	20.7 - 31.1	Not Acceptable	EPA 551.1 1 1992	1/16/2014	-2.77	25.8	2.12	
4400	Bromoform	µg/L	16.6	18.3	14.6 - 22.0	Acceptable	EPA 551.1 1 1992	1/16/2014	-0.777	18.0	1.79	
4575	Chlorodibromomethane	µg/L	32.8	39.1	31.3 - 46.9	Acceptable	EPA 551.1 1 1992	1/16/2014	-1.40	38.4	4.01	
4505	Chloroform	µg/L	15.6	22.7	18.2 - 27.2	Not Acceptable	EPA 551.1 1 1992	1/16/2014	-3.56	22.4	1.90	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	23.9	25.9	20.7 - 31.1	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.886	25.8	2.12	
4400	Bromoform	µg/L	15.7	18.3	14.6 - 22.0	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.28	18.0	1.79	
4575	Chlorodibromomethane	µg/L	28.4	39.1	31.3 - 46.9	Not Acceptable	EPA 524.3 1 2009	2/7/2014	-2.49	38.4	4.01	
4505	Chloroform	µg/L	22.3	22.7	18.2 - 27.2	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.0314	22.4	1.90	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	28.5	25.9	20.7 - 31.1	Acceptable	EPA 524.2 4.1 1995	2/19/2014	1.29	25.8	2.12	
4400	Bromoform	µg/L	18.2	18.3	14.6 - 22.0	Acceptable	EPA 524.2 4.1 1995	2/19/2014	0.119	18.0	1.79	
4575	Chlorodibromomethane	µg/L	42.4	39.1	31.3 - 46.9	Acceptable	EPA 524.2 4.1 1995	2/19/2014	1.00	38.4	4.01	
4505	Chloroform	µg/L	24.4	22.7	18.2 - 27.2	Acceptable	EPA 524.2 4.1 1995	2/19/2014	1.08	22.4	1.90	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	8.50	9.73	5.84 - 13.6	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.55	9.65	0.741	
4455	Carbon tetrachloride	µg/L	4.68	4.46	2.68 - 6.24	Acceptable	EPA 524.3 1 2009	2/8/2014	0.579	4.39	0.507	
4475	Chlorobenzene	µg/L	7.12	7.95	4.77 - 11.1	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.46	8.02	0.618	
4610	1,2-Dichlorobenzene	µg/L	17.2	18.2	14.6 - 21.8	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.386	17.8	1.58	
4620	1,4-Dichlorobenzene	µg/L	10.2	11.4	9.12 - 13.7	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.981	11.1	0.966	
4635	1,2-Dichloroethane	µg/L	5.44	5.87	3.52 - 8.22	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.985	5.98	0.544	
4640	1,1-Dichloroethylene	µg/L	9.90	11.1	8.88 - 13.3	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.14	11.5	1.43	
4645	cis-1,2-Dichloroethylene	µg/L	6.69	7.07	4.24 - 9.90	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.586	7.03	0.581	
4700	trans-1,2-Dichloroethylene	µg/L	6.95	7.69	4.61 - 10.8	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.35	7.92	0.721	
4655	1,2-Dichloropropane	µg/L	11.4	12.9	10.3 - 15.5	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.51	12.8	0.897	
4765	Ethylbenzene	µg/L	7.99	9.19	5.51 - 12.9	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.32	9.21	0.926	
4975	Methylene chloride (Dichloromethane)	µg/L	17.3	19.0	15.2 - 22.8	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.724	18.5	1.62	
5100	Styrene	µg/L	7.85	9.47	5.68 - 13.3	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.59	9.28	0.904	
5115	Tetrachloroethylene	µg/L	8.22	9.74	5.84 - 13.6	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.10	9.35	1.03	
5140	Toluene	µg/L	14.2	17.6	14.1 - 21.1	Acceptable	EPA 524.3 1 2009	2/7/2014	-2.16	17.2	1.40	
5155	1,2,4-Trichlorobenzene	µg/L	11.7	12.0	9.60 - 14.4	Acceptable	EPA 524.3 1 2009	2/7/2014	0.197	11.4	1.46	
5160	1,1,1-Trichloroethane	µg/L	2.10	2.28	1.37 - 3.19	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.327	2.18	0.240	
5165	1,1,2-Trichloroethane	µg/L	5.64	6.66	4.00 - 9.32	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.62	6.56	0.571	
5170	Trichloroethylene	µg/L	6.54	7.53	4.52 - 10.5	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.35	7.37	0.621	
5235	Vinyl chloride	µg/L	7.89	9.67	5.80 - 13.5	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.79	11.1	1.81	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	19.4	22.8	18.2 - 27.4	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.66	23.0	2.16	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	10.5	9.73	5.84 - 13.6	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.15	9.65	0.741	
4455	Carbon tetrachloride	µg/L	4.36	4.46	2.68 - 6.24	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.0518	4.39	0.507	
4475	Chlorobenzene	µg/L	8.57	7.95	4.77 - 11.1	Acceptable	EPA 524.2 4.1 1995	2/12/2014	0.885	8.02	0.618	
4610	1,2-Dichlorobenzene	µg/L	20.2	18.2	14.6 - 21.8	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.52	17.8	1.58	
4620	1,4-Dichlorobenzene	µg/L	10.3	11.4	9.12 - 13.7	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.878	11.1	0.966	
4635	1,2-Dichloroethane	µg/L	7.06	5.87	3.52 - 8.22	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.99	5.98	0.544	
4640	1,1-Dichloroethylene	µg/L	11.0	11.1	8.88 - 13.3	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.374	11.5	1.43	
4645	cis-1,2-Dichloroethylene	µg/L	7.75	7.07	4.24 - 9.90	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.24	7.03	0.581	
4700	trans-1,2-Dichloroethylene	µg/L	8.25	7.69	4.61 - 10.8	Acceptable	EPA 524.2 4.1 1995	2/12/2014	0.458	7.92	0.721	
4655	1,2-Dichloropropane	µg/L	15.1	12.9	10.3 - 15.5	Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.61	12.8	0.897	
4765	Ethylbenzene	µg/L	9.98	9.19	5.51 - 12.9	Acceptable	EPA 524.2 4.1 1995	2/12/2014	0.834	9.21	0.926	
4975	Methylene chloride (Dichloromethane)	µg/L	15.2	19.0	15.2 - 22.8	Acceptable	EPA 524.2 4.1 1995	2/13/2014	-2.02	18.5	1.62	
5100	Styrene	µg/L	9.13	9.47	5.68 - 13.3	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.171	9.28	0.904	
5115	Tetrachloroethylene	µg/L	9.28	9.74	5.84 - 13.6	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.0676	9.35	1.03	
5140	Toluene	µg/L	19.0	17.6	14.1 - 21.1	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.26	17.2	1.40	
5155	1,2,4-Trichlorobenzene	µg/L	11.3	12.0	9.60 - 14.4	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.0770	11.4	1.46	
5160	1,1,1-Trichloroethane	µg/L	2.08	2.28	1.37 - 3.19	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.410	2.18	0.240	
5165	1,1,2-Trichloroethane	µg/L	7.63	6.66	4.00 - 9.32	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.87	6.56	0.571	
5170	Trichloroethylene	µg/L	6.42	7.53	4.52 - 10.5	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-1.54	7.37	0.621	
5235	Vinyl chloride	µg/L	10.6	9.67	5.80 - 13.5	Acceptable	EPA 524.2 4.1 1995	2/12/2014	-0.293	11.1	1.81	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	24.8	22.8	18.2 - 27.4	Acceptable	EPA 524.2 4.1 1995	2/12/2014	0.839	23.0	2.16	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	11.3	11.8	9.44 - 14.2	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.363	11.8	1.34	
4390	Bromochloromethane	µg/L	8.89	9.61	5.77 - 13.5	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.826	9.66	0.934	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/7/2014				
5000	tert-Butyl methyl ether (MTBE)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/7/2014				
4435	n-Butylbenzene	µg/L	5.52	6.14	3.68 - 8.60	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.562	5.84	0.562	
4440	sec-Butylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/7/2014				
4445	tert-Butylbenzene	µg/L	10.9	10.8	8.64 - 13.0	Acceptable	EPA 524.3 1 2009	2/7/2014	0.146	10.7	1.14	
4485	Chloroethane	µg/L	12.6	14.0	8.40 - 19.6	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.18	15.5	2.48	
4960	Chloromethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/7/2014				
4535	2-Chlorotoluene	µg/L	4.63	4.68	2.81 - 6.55	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.0515	4.65	0.445	
4540	4-Chlorotoluene	µg/L	4.16	4.54	2.72 - 6.36	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.566	4.41	0.437	
4595	Dibromomethane	µg/L	5.32	5.98	3.59 - 8.37	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.984	5.82	0.508	
4615	1,3-Dichlorobenzene	µg/L	11.8	12.4	9.92 - 14.9	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.398	12.3	1.17	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/7/2014				
4630	1,1-Dichloroethane	µg/L	8.49	8.58	5.15 - 12.0	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.381	8.80	0.817	
4660	1,3-Dichloropropane	µg/L	12.3	13.9	11.1 - 16.7	Acceptable	EPA 524.3 1 2009	2/7/2014	-1.23	13.9	1.31	
4665	2,2-Dichloropropane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/7/2014				
4670	1,1-Dichloropropene	µg/L	5.09	5.38	3.23 - 7.53	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.867	5.55	0.528	
4680	cis-1,3-Dichloropropene	µg/L	11.4	12.4	9.92 - 14.9	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.0837	11.5	0.984	
4685	trans-1,3-Dichloropropene	µg/L	13.3	15.3	12.2 - 18.4	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.642	14.2	1.43	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	16.8	17.7	10.6 - 24.8	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.959	19.6	2.95	
4835	Hexachlorobutadiene	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/7/2014				
4900	Isopropylbenzene	µg/L	15.5	16.0	12.8 - 19.2	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.679	16.8	1.97	
4910	4-Isopropyltoluene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/7/2014				
5005	Naphthalene	µg/L	5.70	5.94	3.56 - 8.32	Acceptable	EPA 524.3 1 2009	2/7/2014	0.116	5.61	0.801	
5090	n-Propylbenzene	µg/L	8.90	9.23	5.54 - 12.9	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.491	9.26	0.743	
5105	1,1,1,2-Tetrachloroethane	µg/L	3.61	3.19	1.91 - 4.47	Acceptable	EPA 524.3 1 2009	2/7/2014	1.66	3.16	0.274	
5110	1,1,2,2-Tetrachloroethane	µg/L	3.00	3.08	1.85 - 4.31	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.214	3.08	0.387	
5150	1,2,3-Trichlorobenzene	µg/L	11.2	11.7	9.36 - 14.0	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.0857	11.3	1.46	
5180	1,2,3-Trichloropropane (TCP)	µg/L	9.69	10.3	8.24 - 12.4	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.431	10.3	1.50	
5210	1,2,4-Trimethylbenzene	µg/L	3.89	4.12	2.47 - 5.77	Acceptable	EPA 524.3 1 2009	2/7/2014	-0.575	4.10	0.368	
5215	1,3,5-Trimethylbenzene	µg/L	3.99	4.02	2.41 - 5.63	Acceptable	EPA 524.3 1 2009	2/7/2014	0.00909	3.99	0.402	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	14.3	11.8	9.44 - 14.2	Not Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.88	11.8	1.34	
4390	Bromochloromethane	µg/L	12.5	9.61	5.77 - 13.5	Acceptable	EPA 524.2 4.1 1995	2/12/2014	3.04	9.66	0.934	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
5000	tert-Butyl methyl ether (MTBE)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
4435	n-Butylbenzene	µg/L	7.89	6.14	3.68 - 8.60	Acceptable	EPA 524.2 4.1 1995	2/12/2014	3.66	5.84	0.562	
4440	sec-Butylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
4445	tert-Butylbenzene	µg/L	14.1	10.8	8.64 - 13.0	Not Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.94	10.7	1.14	
4485	Chloroethane	µg/L	19.4	14.0	8.40 - 19.6	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.56	15.5	2.48	
4960	Chloromethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
4535	2-Chlorotoluene	µg/L	5.78	4.68	2.81 - 6.55	Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.53	4.65	0.445	
4540	4-Chlorotoluene	µg/L	5.45	4.54	2.72 - 6.36	Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.39	4.41	0.437	
4595	Dibromomethane	µg/L	6.95	5.98	3.59 - 8.37	Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.22	5.82	0.508	
4615	1,3-Dichlorobenzene	µg/L	15.7	12.4	9.92 - 14.9	Not Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.94	12.3	1.17	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
4630	1,1-Dichloroethane	µg/L	10.6	8.58	5.15 - 12.0	Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.20	8.80	0.817	
4660	1,3-Dichloropropane	µg/L	17.7	13.9	11.1 - 16.7	Not Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.88	13.9	1.31	
4665	2,2-Dichloropropane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
4670	1,1-Dichloropropene	µg/L	6.29	5.38	3.23 - 7.53	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.41	5.55	0.528	
4680	cis-1,3-Dichloropropene	µg/L	13.4	12.4	9.92 - 14.9	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.95	11.5	0.984	
4685	trans-1,3-Dichloropropene	µg/L	16.6	15.3	12.2 - 18.4	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.66	14.2	1.43	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	23.4	17.7	10.6 - 24.8	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.28	19.6	2.95	
4835	Hexachlorobutadiene	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
4900	Isopropylbenzene	µg/L	22.0	16.0	12.8 - 19.2	Not Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.63	16.8	1.97	
4910	4-Isopropyltoluene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/12/2014				
5005	Naphthalene	µg/L	6.02	5.94	3.56 - 8.32	Acceptable	EPA 524.2 4.1 1995	2/12/2014	0.516	5.61	0.801	
5090	n-Propylbenzene	µg/L	11.6	9.23	5.54 - 12.9	Acceptable	EPA 524.2 4.1 1995	2/12/2014	3.14	9.26	0.743	
5105	1,1,1,2-Tetrachloroethane	µg/L	3.51	3.19	1.91 - 4.47	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.29	3.16	0.274	
5110	1,1,2,2-Tetrachloroethane	µg/L	4.89	3.08	1.85 - 4.31	Not Acceptable	EPA 524.2 4.1 1995	2/12/2014	4.67	3.08	0.387	
5150	1,2,3-Trichlorobenzene	µg/L	11.7	11.7	9.36 - 14.0	Acceptable	EPA 524.2 4.1 1995	2/12/2014	0.258	11.3	1.46	
5180	1,2,3-Trichloropropane (TCP)	µg/L	13.5	10.3	8.24 - 12.4	Not Acceptable	EPA 524.2 4.1 1995	2/12/2014	2.11	10.3	1.50	
5210	1,2,4-Trimethylbenzene	µg/L	4.83	4.12	2.47 - 5.77	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.98	4.10	0.368	
5215	1,3,5-Trimethylbenzene	µg/L	4.73	4.02	2.41 - 5.63	Acceptable	EPA 524.2 4.1 1995	2/12/2014	1.85	3.99	0.402	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	2.91	2.96	1.63 - 4.29	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.159	2.97	0.400	
7025	Aldrin	µg/L	1.04	1.26	0.564 - 1.61	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.174	1.08	0.235	
7065	Atrazine	µg/L	9.84	9.68	5.32 - 14.0	Acceptable	EPA 525.2 2 1995	1/25/2014	0.264	9.42	1.61	
7120	gamma-BHC (Lindane)	µg/L	1.52	1.53	0.842 - 2.22	Acceptable	EPA 525.2 2 1995	1/25/2014	0.375	1.45	0.192	
7130	Bromacil	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	1/25/2014				
7160	Butachlor	µg/L	4.15	3.77	2.07 - 5.47	Acceptable	EPA 525.2 2 1995	1/25/2014	0.394	3.94	0.523	
7410	Diazinon	µg/L	< 0.10	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	1/25/2014				
7470	Dieldrin	µg/L	2.02	2.13	1.17 - 3.09	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.273	2.10	0.276	
7540	Endrin	µg/L	1.47	1.81	1.27 - 2.35	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.871	1.75	0.318	
7685	Heptachlor	µg/L	1.08	1.17	0.644 - 1.70	Acceptable	EPA 525.2 2 1995	1/25/2014	0.104	1.06	0.225	
7690	Heptachlor epoxide (beta)	µg/L	1.68	1.90	1.04 - 2.76	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.426	1.80	0.273	
6275	Hexachlorobenzene	µg/L	1.63	1.77	0.875 - 2.22	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.159	1.67	0.232	
6285	Hexachlorocyclopentadiene	µg/L	7.70	8.57	2.51 - 12.2	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.0480	7.84	3.00	
7810	Methoxychlor	µg/L	3.49	3.77	2.07 - 5.47	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.372	3.73	0.645	
7835	Metolachlor	µg/L	9.86	9.16	5.04 - 13.3	Acceptable	EPA 525.2 2 1995	1/25/2014	0.672	9.12	1.10	
7845	Metribuzin	µg/L	3.11	3.23	1.62 - 4.84	Acceptable	EPA 525.2 2 1995	1/25/2014	0.671	2.60	0.763	
7875	Molinate (Ordram)	µg/L	< 0.10	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	1/25/2014				
8035	Prometon	µg/L		< 2.00	0.00 - 2.00	Not Reported						
8045	Propachlor	µg/L	1.82	1.94	1.07 - 2.81	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.437	1.94	0.268	
8125	Simazine	µg/L	5.27	5.25	2.89 - 7.61	Acceptable	EPA 525.2 2 1995	1/25/2014	0.217	5.00	1.26	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	1/25/2014				
8295	Trifluralin	µg/L	1.61	1.69	0.930 - 2.45	Acceptable	EPA 525.2 2 1995	1/25/2014	0.0338	1.60	0.419	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	3.64	2.96	1.63 - 4.29	Acceptable	EPA 505 2.1 1995	1/15/2014	1.67	2.97	0.400	
7025	Aldrin	µg/L	1.55	1.26	0.564 - 1.61	Acceptable	EPA 505 2.1 1995	1/15/2014	2.00	1.08	0.235	
7065	Atrazine	µg/L		9.68	5.32 - 14.0	Not Reported				9.42	1.61	
7120	gamma-BHC (Lindane)	µg/L	1.76	1.53	0.842 - 2.22	Acceptable	EPA 505 2.1 1995	1/15/2014	1.63	1.45	0.192	
7130	Bromacil	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7160	Butachlor	µg/L		3.77	2.07 - 5.47	Not Reported				3.94	0.523	
7410	Diazinon	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7470	Dieldrin	µg/L	2.54	2.13	1.17 - 3.09	Acceptable	EPA 505 2.1 1995	1/15/2014	1.61	2.10	0.276	
7540	Endrin	µg/L	2.13	1.81	1.27 - 2.35	Acceptable	EPA 505 2.1 1995	1/15/2014	1.20	1.75	0.318	
7685	Heptachlor	µg/L	1.42	1.17	0.644 - 1.70	Acceptable	EPA 505 2.1 1995	1/15/2014	1.62	1.06	0.225	
7690	Heptachlor epoxide (beta)	µg/L	2.28	1.90	1.04 - 2.76	Acceptable	EPA 505 2.1 1995	1/15/2014	1.77	1.80	0.273	
6275	Hexachlorobenzene	µg/L		1.77	0.875 - 2.22	Not Reported				1.67	0.232	
6285	Hexachlorocyclopentadiene	µg/L		8.57	2.51 - 12.2	Not Reported				7.84	3.00	
7810	Methoxychlor	µg/L	4.73	3.77	2.07 - 5.47	Acceptable	EPA 505 2.1 1995	1/15/2014	1.55	3.73	0.645	
7835	Metolachlor	µg/L		9.16	5.04 - 13.3	Not Reported				9.12	1.10	
7845	Metribuzin	µg/L		3.23	1.62 - 4.84	Not Reported				2.60	0.763	
7875	Molinate (Ordram)	µg/L		< 2.00	0.00 - 2.00	Not Reported						
8035	Prometon	µg/L		< 2.00	0.00 - 2.00	Not Reported						
8045	Propachlor	µg/L		1.94	1.07 - 2.81	Not Reported				1.94	0.268	
8125	Simazine	µg/L		5.25	2.89 - 7.61	Not Reported				5.00	1.26	

WS-210 2009 TNI Evaluation Final Complete Report

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L		< 2.00	0.00 - 2.00	Not Reported						
8295	Trifluralin	µg/L		1.69	0.930 - 2.45	Not Reported				1.60	0.419	
WS Carbamate/Carbamoxyloxime Pesticides (cat# 846)												
7010	Aldicarb	µg/L	19.1	21.5	16.1 - 26.9	Acceptable	EPA 531.2 1 2001	1/13/2014	-1.07	21.5	2.20	
7015	Aldicarb sulfone	µg/L	27.8	28.4	21.3 - 35.5	Acceptable	EPA 531.2 1 2001	1/13/2014	-1.08	31.1	3.07	
7020	Aldicarb sulfoxide	µg/L	24.2	26.4	19.8 - 33.0	Acceptable	EPA 531.2 1 2001	1/13/2014	-0.958	26.8	2.71	
8080	Baygon	µg/L	105	105	85.4 - 124	Acceptable	EPA 531.2 1 2001	1/13/2014	0.0453	105	5.13	
7195	Carbaryl	µg/L	47.8	47.1	35.3 - 58.9	Acceptable	EPA 531.2 1 2001	1/13/2014	0.895	45.7	2.33	
7205	Carbofuran	µg/L	100	103	56.6 - 149	Acceptable	EPA 531.2 1 2001	1/13/2014	-0.164	101	6.39	
7710	3-Hydroxycarbofuran	µg/L	19.4	21.1	16.9 - 25.3	Acceptable	EPA 531.2 1 2001	1/13/2014	-0.640	20.8	2.26	
7800	Methiocarb	µg/L	81.3	76.2	59.5 - 90.9	Acceptable	EPA 531.2 1 2001	1/13/2014	1.09	74.0	6.67	
7805	Methomyl	µg/L	54.8	55.9	44.7 - 67.1	Acceptable	EPA 531.2 1 2001	1/13/2014	-0.595	57.0	3.64	
7940	Oxamyl (vydate)	µg/L	46.6	49.6	37.2 - 62.0	Acceptable	EPA 531.2 1 2001	1/13/2014	-0.480	48.5	3.89	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	4.65	4.25	2.34 - 6.16	Acceptable	EPA 525.2 2 1995	1/27/2014	1.25	3.96	0.547	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	4.05	4.25	2.34 - 6.16	Acceptable	EPA 505 2.1 1995	1/15/2014	0.158	3.96	0.547	
WS Toxaphene (cat# 844)												
8250	Toxaphene	µg/L	4.26	4.96	2.73 - 7.19	Acceptable	EPA 505 2.1 1995	1/15/2014	0.0821	4.18	1.03	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	1.50	1.51	0.906 - 2.11	Acceptable	EPA 504.1 1.1 1995	1/17/2014	0.0813	1.48	0.199	
4585	Ethylene Dibromide (EDB)	µg/L	1.24	1.23	0.738 - 1.72	Acceptable	EPA 504.1 1.1 1995	1/17/2014	0.353	1.19	0.147	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.39	1.34	0.804 - 1.88	Acceptable	EPA 504.1 1.1 1995	1/17/2014	0.186	1.34	0.245	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	1.70	1.51	0.906 - 2.11	Acceptable	EPA 551.1 1 1992	1/17/2014	1.09	1.48	0.199	
4585	Ethylene Dibromide (EDB)	µg/L	1.28	1.23	0.738 - 1.72	Acceptable	EPA 551.1 1 1992	1/17/2014	0.626	1.19	0.147	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.34	0.804 - 1.88	Not Reported				1.34	0.245	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	1.50	1.51	0.906 - 2.11	Acceptable	EPA 8011 1994	1/17/2014	0.0813	1.48	0.199	
4585	Ethylene Dibromide (EDB)	µg/L	1.24	1.23	0.738 - 1.72	Acceptable	EPA 8011 1994	1/17/2014	0.353	1.19	0.147	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.34	0.804 - 1.88	Not Reported				1.34	0.245	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L		1.51	0.906 - 2.11	Not Reported				1.48	0.199	
4585	Ethylene Dibromide (EDB)	µg/L		1.23	0.738 - 1.72	Not Reported				1.19	0.147	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.28	1.34	0.804 - 1.88	Acceptable	EPA 524.2 4.1 1995	2/19/2014	-0.264	1.34	0.245	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	52.8	61.7	35.3 - 74.3	Acceptable	EPA 1613 1994	1/28/2014	-1.33	60.2	5.55	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	52.8	61.7	35.3 - 74.3	Acceptable	EPA 1613B Appendix A 1997	1/28/2014	-1.33	60.2	5.55	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS PCBs as Decachlorobiphenyl (cat# 839)												
8880	Aroclor 1016	µg/L	< 0.08	< 0.260	0.00 - 0.260	Acceptable	EPA 505 2.1 1995	1/24/2014				
8885	Aroclor 1221	µg/L	< 0.10	< 0.190	0.00 - 0.190	Acceptable	EPA 505 2.1 1995	1/24/2014				
8890	Aroclor 1232	µg/L	< 0.10	< 0.230	0.00 - 0.230	Acceptable	EPA 505 2.1 1995	1/24/2014				
8895	Aroclor 1242	µg/L	< 0.10	< 0.260	0.00 - 0.260	Acceptable	EPA 505 2.1 1995	1/24/2014				
8900	Aroclor 1248	µg/L	3.52	2.95	1.69 - 3.62	Acceptable	EPA 505 2.1 1995	1/24/2014	0.570	3.21	0.546	
8905	Aroclor 1254	µg/L	< 0.10	< 0.330	0.00 - 0.330	Acceptable	EPA 505 2.1 1995	1/24/2014				
8910	Aroclor 1260	µg/L	< 0.10	< 0.360	0.00 - 0.360	Acceptable	EPA 505 2.1 1995	1/24/2014				
8872	PCB Aroclor Identity	Identity	1248	1248		Acceptable	EPA 505 2.1 1995	1/24/2014	0			
9105	PCB as Decachlorobiphenyl	µg/L		4.92	0.492 - 9.84	Not Reported				4.29	0.194	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848)												
5500	Acenaphthene	µg/L	8.37	8.77	4.37 - 11.0	Acceptable	EPA 525.2 2 1995	1/25/2014	0.855	7.87	0.590	
5505	Acenaphthylene	µg/L	3.15	3.47	1.63 - 4.66	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.148	3.25	0.676	
5555	Anthracene	µg/L	2.35	2.41	1.04 - 3.13	Acceptable	EPA 525.2 2 1995	1/25/2014	0.286	2.14	0.732	
5575	Benzo(a)anthracene	µg/L	4.30	4.70	2.59 - 5.95	Acceptable	EPA 525.2 2 1995	1/25/2014	0.149	4.16	0.954	
5585	Benzo(b)fluoranthene	µg/L	8.54	7.42	3.95 - 10.2	Acceptable	EPA 525.2 2 1995	1/25/2014	1.85	6.78	0.953	
5600	Benzo(k)fluoranthene	µg/L	7.27	6.72	3.64 - 9.10	Acceptable	EPA 525.2 2 1995	1/25/2014	1.33	6.16	0.833	
5590	Benzo(g,h,i)perylene	µg/L	3.31	2.78	1.26 - 3.97	Acceptable	EPA 525.2 2 1995	1/25/2014	1.25	2.61	0.564	
5580	Benzo(a)pyrene	µg/L	1.24	1.27	0.492 - 1.65	Acceptable	EPA 525.2 2 1995	1/25/2014	0.731	1.05	0.253	
5670	Butylbenzylphthalate	µg/L	36.7	33.5	18.2 - 48.6	Acceptable	EPA 525.2 2 1995	1/25/2014	0.462	33.3	7.27	
5855	Chrysene	µg/L	4.42	4.42	2.53 - 5.68	Acceptable	EPA 525.2 2 1995	1/25/2014	0.276	4.27	0.547	
5895	Dibenz(a,h)anthracene	µg/L	5.22	4.77	2.21 - 6.85	Acceptable	EPA 525.2 2 1995	1/25/2014	0.320	4.68	1.69	
6070	Diethylphthalate	µg/L	42.7	43.3	23.3 - 61.2	Acceptable	EPA 525.2 2 1995	1/25/2014	0.423	41.1	3.75	
6135	Dimethylphthalate	µg/L	30.9	30.7	14.7 - 42.2	Acceptable	EPA 525.2 2 1995	1/25/2014	0.424	29.2	4.12	
5925	Di-n-butylphthalate	µg/L	35.3	32.2	17.6 - 46.3	Acceptable	EPA 525.2 2 1995	1/25/2014	0.334	33.2	6.15	
6200	Di-n-octylphthalate	µg/L	10.7	10.2	5.06 - 14.2	Acceptable	EPA 525.2 2 1995	1/25/2014	-0.284	11.9	4.15	
6062	bis(2-Ethylhexyl)adipate	µg/L	31.4	29.0	17.9 - 38.2	Acceptable	EPA 525.2 2 1995	1/25/2014	1.26	25.9	4.39	
6065	bis(2-Ethylhexyl)phthalate	µg/L	28.1	26.2	13.2 - 37.7	Acceptable	EPA 525.2 2 1995	1/25/2014	0.938	23.7	4.68	
6265	Fluoranthene	µg/L	4.55	4.65	2.24 - 6.28	Acceptable	EPA 525.2 2 1995	1/25/2014	0.0323	4.53	0.664	
6270	Fluorene	µg/L	3.34	3.22	1.88 - 4.12	Acceptable	EPA 525.2 2 1995	1/25/2014	0.219	3.29	0.240	
6315	Indeno(1,2,3-cd)pyrene	µg/L	2.43	1.61	0.700 - 2.30	Not Acceptable	EPA 525.2 2 1995	1/25/2014	1.01	1.92	0.510	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848) (Continued)												
5005	Naphthalene	µg/L	4.13	4.27	1.73 - 5.45	Acceptable	EPA 525.2 2 1995	1/25/2014	0.373	3.91	0.597	
6615	Phenanthrene	µg/L	4.87	5.13	3.26 - 6.46	Acceptable	EPA 525.2 2 1995	1/25/2014	0.223	4.74	0.579	
6665	Pyrene	µg/L	3.44	3.26	1.95 - 4.22	Acceptable	EPA 525.2 2 1995	1/25/2014	0.132	3.38	0.461	
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L	30.1	28.4	14.2 - 42.6	Acceptable	EPA 515.4 1 2000	1/15/2014	0.914	26.1	4.41	
8530	Bentazon	µg/L	15.2	15.6	8.08 - 21.2	Acceptable	EPA 515.4 1 2000	1/14/2014	0.155	14.9	1.93	
8540	Chloramben	µg/L		58.2	15.6 - 78.9	Not Reported				52.5	7.44	
8545	2,4-D	µg/L	17.6	20.5	10.2 - 30.8	Acceptable	EPA 515.4 1 2000	1/15/2014	-0.807	19.5	2.32	
8550	Dacthal diacid (DCPA)	µg/L	35.7	25.0	9.30 - 40.5	Acceptable	EPA 515.4 1 2000	1/15/2014	1.48	27.2	5.72	
8555	Dalapon	µg/L	15.7	14.5	7.25 - 21.8	Acceptable	EPA 515.4 1 2000	1/14/2014	0.657	14.0	2.63	
8560	2,4-DB	µg/L	27.8	30.2	15.1 - 45.3	Acceptable	EPA 515.4 1 2000	1/14/2014	-0.0280	27.9	3.22	
8595	Dicamba	µg/L	42.7	41.4	20.7 - 62.1	Acceptable	EPA 515.4 1 2000	1/15/2014	0.648	40.1	4.05	
8600	3,5-Dichlorobenzoic acid	µg/L	48.5	50.6	24.1 - 67.0	Acceptable	EPA 515.4 1 2000	1/15/2014	0.453	45.4	6.82	
8605	Dichlorprop	µg/L	21.0	21.2	9.71 - 29.2	Acceptable	EPA 515.4 1 2000	1/15/2014	0.328	20.2	2.44	
8620	Dinoseb	µg/L	12.5	11.8	4.64 - 17.1	Acceptable	EPA 515.4 1 2000	1/15/2014	0.407	11.7	1.98	
6500	4-Nitrophenol	µg/L		56.8	5.68 - 76.7	Not Reported				53.6	0.00	
6605	Pentachlorophenol	µg/L	22.0	22.7	11.4 - 34.0	Acceptable	EPA 515.4 1 2000	1/15/2014	0.492	20.7	2.63	
8645	Picloram	µg/L	16.1	15.7	7.85 - 23.6	Acceptable	EPA 515.4 1 2000	1/15/2014	0.261	15.6	2.06	
8655	2,4,5-T	µg/L	22.1	24.1	12.0 - 36.2	Acceptable	EPA 515.4 1 2000	1/15/2014	-0.321	22.9	2.47	
8650	2,4,5-TP (Silvex)	µg/L	14.3	15.4	7.70 - 23.1	Acceptable	EPA 515.4 1 2000	1/15/2014	-0.214	14.6	1.26	

WS-210 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L		28.4	14.2 - 42.6	Not Reported				26.1	4.41	
8530	Bentazon	µg/L		15.6	8.08 - 21.2	Not Reported				14.9	1.93	
8540	Chloramben	µg/L		58.2	15.6 - 78.9	Not Reported				52.5	7.44	
8545	2,4-D	µg/L		20.5	10.2 - 30.8	Not Reported				19.5	2.32	
8550	Dacthal diacid (DCPA)	µg/L		25.0	9.30 - 40.5	Not Reported				27.2	5.72	
8555	Dalapon	µg/L		14.5	7.25 - 21.8	Not Reported				14.0	2.63	
8560	2,4-DB	µg/L		30.2	15.1 - 45.3	Not Reported				27.9	3.22	
8595	Dicamba	µg/L		41.4	20.7 - 62.1	Not Reported				40.1	4.05	
8600	3,5-Dichlorobenzoic acid	µg/L		50.6	24.1 - 67.0	Not Reported				45.4	6.82	
8605	Dichlorprop	µg/L		21.2	9.71 - 29.2	Not Reported				20.2	2.44	
8620	Dinoseb	µg/L		11.8	4.64 - 17.1	Not Reported				11.7	1.98	
6500	4-Nitrophenol	µg/L		56.8	5.68 - 76.7	Not Reported				53.6	0.00	
6605	Pentachlorophenol	µg/L	25.4	22.7	11.4 - 34.0	Acceptable	EPA 525.2 1995	1/27/2014	1.78	20.7	2.63	
8645	Picloram	µg/L		15.7	7.85 - 23.6	Not Reported				15.6	2.06	
8655	2,4,5-T	µg/L		24.1	12.0 - 36.2	Not Reported				22.9	2.47	
8650	2,4,5-TP (Silvex)	µg/L		15.4	7.70 - 23.1	Not Reported				14.6	1.26	
WS Regulated Semivolatiles #2 Herbicides (cat# 849)												
9390	Diquat	µg/L	18.9	26.4	13.2 - 39.6	Acceptable	EPA 549.2 1 1997	1/17/2014	-0.954	22.8	4.07	
7525	Endothall	µg/L	156	166	83.0 - 249	Acceptable	EPA 548.1 1 1992	1/16/2014	0.0752	155	19.8	
9411	Glyphosate	µg/L	442	382	306 - 458	Acceptable	EPA 547 1990	1/14/2014	1.43	392	35.2	
9528	Paraquat	µg/L	25.7	41.2	18.1 - 51.7	Acceptable	EPA 549.2 1 1997	1/17/2014	-1.01	31.0	5.25	

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016

RAD-96 Final Report

RadCheM™ Proficiency Testing

RadCheM™ Study

Reference Date: 01/06/14

Open Date: 01/06/14

Close Date: 02/20/14

Report Issued Date: 02/24/14

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **RAD-96**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

RAD Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

RAD-96 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	27.0	36.1	18.6 - 46.4	Acceptable	EPA 900.0 GPC 1980	1/23/2014	-1.02	34.2	7.11	
2840	Gross Beta	pCi/L	16.5	22.3	13.5 - 30.4	Acceptable	EPA 900.0 GPC 1980	1/23/2014	-1.07	20.1	3.36	
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	24.6	36.1	18.6 - 46.4	Acceptable	SM 7110 C (GPC)-1996 1996	1/30/2014	-1.35	34.2	7.11	
2840	Gross Beta	pCi/L		22.3	13.5 - 30.4	Not Reported				20.1	3.36	
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	24.6	36.1	18.6 - 46.4	Acceptable	SM 7110 C (GPC) 22nd ED 2011	1/30/2014	-1.35	34.2	7.11	
2840	Gross Beta	pCi/L		22.3	13.5 - 30.4	Not Reported				20.1	3.36	
RAD NaturalS™ (cat# 811)												
2965	Radium-226	pCi/L	15.4	16.8	12.5 - 19.2	Acceptable	GA Tech RA-226/228 1.2 2004	1/27/2014	-0.920	16.8	1.48	
2970	Radium-228	pCi/L	5.21	5.04	3.01 - 6.76	Acceptable	GA Tech RA-226/228 1.2 2004	1/27/2014	0.385	4.88	0.865	
3055	Uranium (Nat)	pCi/L		7.23	5.51 - 8.53	Not Reported				7.10	0.482	
3055	Uranium (Nat) mass	µg/L	10.4	10.6	8.07 - 12.5	Acceptable	EPA 200.8 5.4 1994	2/5/2014	-0.189	10.5	0.654	

ERA
A Waters Company

2003 NELAC Evaluation Report

Study: **RAD-96**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

RAD Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

RAD-96 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	27.0	36.1	18.6 - 46.4	Acceptable	EPA 900.0 GPC 1980	1/23/2014	-1.02	34.2	7.11	
2840	Gross Beta	pCi/L	16.5	22.3	13.5 - 30.4	Acceptable	EPA 900.0 GPC 1980	1/23/2014	-1.07	20.1	3.36	
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	24.6	36.1	18.6 - 46.4	Acceptable	SM 7110 C (GPC)-1996 1996	1/30/2014	-1.35	34.2	7.11	
2840	Gross Beta	pCi/L		22.3	13.5 - 30.4	Not Reported				20.1	3.36	
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	24.6	36.1	18.6 - 46.4	Acceptable	SM 7110 C (GPC) 22nd ED 2011	1/30/2014	-1.35	34.2	7.11	
2840	Gross Beta	pCi/L		22.3	13.5 - 30.4	Not Reported				20.1	3.36	
RAD NaturalS™ (cat# 811)												
2965	Radium-226	pCi/L	15.4	16.8	12.5 - 19.2	Acceptable	GA Tech RA-226/228 1.2 2004	1/27/2014	-0.920	16.8	1.48	
2970	Radium-228	pCi/L	5.21	5.04	3.01 - 6.76	Acceptable	GA Tech RA-226/228 1.2 2004	1/27/2014	0.385	4.88	0.865	
3055	Uranium (Nat)	pCi/L		7.23	5.51 - 8.53	Not Reported				7.10	0.482	
3055	Uranium (Nat) mass	µg/L	10.4	10.6	8.07 - 12.5	Acceptable	EPA 200.8 5.4 1994	2/5/2014	-0.189	10.5	0.654	

eurofins | Eaton Analytical

April 24, 2014

Fred Choske
Environmental Laboratory Accreditation Program Branch (ELAP)
850 Marina Bay Parkway, Bldg P, 1st Floor
Richmond, CA 94804

RE: Eurofins Eaton-Monrovia: ELAP Certificate No. 2813; EPA ID: CA00006
Eurofins Eaton-Folsom: ELAP Certificate No. 2820; EPA ID: CA01622
ERA WS-210, January Study Corrective Action Reports

Dear Mr. Choske,

Please find attached EEAI's corrective action reports for methods and analytes that failed ERA WS-210, January 2014 Full PT study for our Monrovia and Folsom facilities.

For our Monrovia facility, the lab participated in ERA 'Quik' response PT # 031214M1 and #031414Q as makeup PTs for Not Acceptable results. The lab will participate in ERA 'Quik' response PT 041014C as makeup PT for the Folsom facility.

Corrective actions are being implemented to eliminate the problems. Internal QC check samples were provided to the analysts to determine if corrective actions implemented are effective in eliminating the problems.

If you have any questions, please call me at 626-386-1117 or our QA Officer, Nilda Cox, at 626-386-1170. Our email addresses are NildaCox@eurofinsus.com and AlmaCapati@eurofinsus.com.

Thank you.

Sincerely,

alcapati

Alma Capati
QA Assistant

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 1

eurofins | Eaton Analytical

Sample Information		
Department:	Metals	
Method(s):	EPA 200.8	
Analyte(s):	Copper	
Sample ID:	WS Metals	
Sample No.:	201401080782	
Group No.:	463770	
Date Analyzed:	1/27/2014	
Analyst:	Sophia Khan	
Reported Value:	165	ug/L
True Value:	190	ug/L
% Recovery:	87%	
Acceptance Limits:		171-209 ug/L (90-110%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	103%
LCS2	107%
RPD_LCS	4%
MS	101%
MSD	92%
RPD_MS	9%

Problem Identification (Root Cause Analysis)			
	Dilution Error		Instrument Problems
	QC Limits not met	X	Standards Problems
	SOP not followed	X	Other
	Calculation Error		
	Lab Contamination		
	Log in Error		
x	Training		
	Reporting Error		

Possible issues with results being slightly off due to propagation of errors in standard and PT prep and narrow limits of acceptance criteria.

Internal QC Check		
Result =	1120	ug/L
Spike Value =	1080	ug/L
% Recovery =	104%	
Acceptance Limits:	972-1190	ug/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Analyst received refresher training on isobaric interference corrections for ICPMS analysis as well as standard and sample preparation technique. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Result of the makeup PT was acceptable.

Analyst : Sophia Khan — Date: 4/25/14

Technical Manager: Walter Hsieh — Date: 4/24/14

Quality Manager: Nilda Cox — Date: 04/24/2014

Laboratory Director: Fred Haley — Date: 4/25/14

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 2

eurofins | Eaton Analytical

Sample Information

Department:	Metals	
Method(s):	EPA 200.8	
Analyte(s):	Vanadium	
Sample ID:	WS Vanadium	
Sample No.:	201401080785	
Group No.:	463770	
Date Analyzed:	1/27/2014	
Analyst:	Sophia Khan	
Reported Value:	11.2	ug/L
True Value:	12.9	ug/L
% Recovery:	87%	
Acceptance Limits:		11.3-14.4 ug/L (88-112%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	107%
LCS2	109%
RPD_LCS	2%
MS	101%
MSD	95%
RPD_MS	6%

Problem Identification (Root Cause Analysis)

	Dilution Error		Instrument Problems
	QC Limits not met	x	Standards Problems
	SOP not followed	X	Other
	Calculation Error		*Possible issues with results being slightly off due to propagation of errors in standard and PT prep due to very narrow limits of vendor's acceptance criteria of 88-112%.*
	Lab Contamination		
	Log in Error		
x	Training		
	Reporting Error		

Internal QC Check

Result =	13.4	ug/L
Spike Value =	12.7	ug/L
% Recovery =	106%	

Acceptance Limits: 11.1-14.2 ug/L

Evaluation = Acceptable

Corrective Action Taken To Prevent Reoccurrence of Problem:

The analyst received additional training on PT sample and standard preparation and was reminded to pay attention to details from analysis to reporting. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Result of the makeup PT was acceptable.

Analyst :	Sophia Khan	Date:	4/25/14
Technical Manager:	Walter Hsieh	Date:	4/24/14
Quality Manager:	Nilda Cox	Date:	04/24/2014
Laboratory Director:	Fred Haley	Date:	4/25/14

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 3

eurofins | Eaton Analytical

Sample Information

Department:	Inorganics	
Method(s):	SM4500CN-F	
Analyte(s):	Cyanide, total	
Sample ID:	WS Cyanide	
Sample No.:	201401080791	
Group No.:	463770	
Date Analyzed:	1/20/2014	
Analyst:	Michael Tang	
Reported Value:	0.330	mg/L
True Value:	0.251	mg/L
% Recovery:	131%	
Acceptance Limits:		0.188-0.314 mg/L (75-125%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	99%
LCS2	109%
RPD_LCS	9%
MS	95%
MSD	98%
RPD_MS	3%

Problem Identification (Root Cause Analysis)

	Dilution Error	x	Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check

Result =	0.358	mg/L
Spike Value =	0.356	mg/L
% Recovery =	101%	

Acceptance Limits: 0.261-0.449 mg/L

Evaluation = Acceptable

Corrective Action Taken To Prevent Reoccurrence of Problem:

Switched to manual ISE system. Analyst is working with Metrohm technical support to solve the probe issue. All positive hits will be confirmed by manual distillation method. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Result of the makeup PT was acceptable.

Analyst : Michael Tang Date: 04/25/14

Technical Manager: Walter Hsieh Date: 4/24/14

Quality Manager: Nilda Cox Date: 04/24/2014

Laboratory Director: Fred Haley Date: 4/25/14

Corrective Action Report
For Not Acceptable Value Reported
ERA WS-210 January 2014 PT Study

PT Study: ERA WS-210 January 2014 PT Study

Corrective Action Report No.: 4-5

eurofins | Eaton Analytical

Sample Information

Department:	Inorganics
Method(s):	SM 5310C
Analyte(s):	Total Organic Carbon/Dissolved Organic Carbon
Sample ID:	WS Organic Carbon
Sample No.:	201401080792
Group No.:	463770
Date Analyzed:	1/27/2014
Analyst:	Kenny Siu
Reported Value:	TOC: 5.34; DOC: 5.42 mg/L
True Value:	TOC: 10.4; DOC:10.4 mg/L
% Recovery:	TOC: 51%; DOC: 52%

Acceptance Limits: TOC: 8.32-12.5 (80-120%); DOC: 9.25-11.4 mg/L (89-110%)

Performance Evaluation: Not Acceptable

Batch QC Results (% Recovery)	
LCS1	TOC/DOC: 99
LCS2	TOC/DOC: 101
RPD_LCS	TOC/DOC: 2.6
MS	TOC/DOC: 97
MSD	TOC/DOC: 99
RPD_MS	TOC/DOC: 1.8

Problem Identification (Root Cause Analysis)

x	Dilution Error		Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*PT instruction was to dilute 5ml to 500ml. Analyst diluted 5ml to 1000ml. It was documented in prep sheet but was not reviewed.*
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check

Result =	TOC: 2.24; DOC: 2.15 mg/L
Spike Value =	2.05 mg/L
% Recovery =	TOC: 109; DOC:105
Limits:	TOC:1.67-2.50; DOC:1.82-2.26
Evaluation =	Acceptable

Corrective Action Taken To Prevent Reoccurrence of Problem:

Both data package and documented PT preparation/dilution steps will be peer reviewed prior to release for reporting. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Results of the QC Standard were acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031414Q as make up study. Results of the makeup PT were acceptable.

Analyst : for Kenny Siu. Out on leave Date: 4/25/14
Kenny Siu

Technical Manager: Date: 4/25/14
Walter Hsieh

Quality Manager: for NRC Date: 4/25/14
Nilda Cox

Laboratory Director: Date: 4/25/14
Fred Haley

• will followup for signature when analyst returns from leave (late May)

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 6

eurofins | Eaton Analytical

Sample Information

Department:	GCMS	
Method(s):	EPA 524.2	
Analyte(s):	Tert-Butyl Alcohol	
Sample ID:	WS Gasoline Additives (GAD)	
Sample No.:	201401080845	
Group No.:	463770	
Date Analyzed:	2/14/2014	
Analyst:	Kipp Ramey	
Reported Value:	67.5	ug/L
True Value:	43.5	ug/L
% Recovery:	155%	
Acceptance Limits:		25.9-60.6 ug/L (60-139%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	94%
LCS2	100%
RPD_LCS	6%
MS	
MS2	
RPD_MS	

Problem Identification (Root Cause Analysis)

x	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*Integration of compound looked good. Sample required a 5x dilution to get compound close to the LCS level which is at the lower end of the curve. Possible sample preparation error which caused the high biased result.*
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check

Result =	36.2	ug/L
Spike Value	31.8	ug/L
% Recovery	114%	

Acceptance Limits: 19.0-44.2ug/L

Evaluation = Acceptable

Corrective Action Taken To Prevent Reoccurrence of Problem:

Samples will only be diluted if they exceed the linear range of the instrument. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Result of the makeup PT was acceptable. In the make-up PT, sample was not run at a dilution.

Analyst:	Kipp Ramey	Date:	4/25/14
Technical Manager:	Charles Grady	Date:	4/25/14
Quality Manager:	for NBC Nilda Cox	Date:	4/25/14
Laboratory Director:	Fred Haley	Date:	4/25/14

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 7-8

eurofins | Eaton Analytical

Sample Information	
Department:	GC
Method(s):	EPA 551.1
Analyte(s):	THMs
Sample ID:	WS Halomethanes (THMs)
Sample No.:	201401080862
Group No.:	463770
Date Analyzed:	1/16/2014
Analyst:	Amanda Henry
Reported Value:	Please see attached spreadsheet
True Value:	Please see attached spreadsheet
% Recovery:	Please see attached spreadsheet
Acceptance Limits:	See attached spreadsheet
Performance Evaluation:	Not Acceptable

Batch QC Results (% Recovery)	
LCS1	
LCS2	
RPD_LCS	
MS	
MSD	
RPD_MS	
See attached spreadsheet	

Problem Identification (Root Cause Analysis)			
x	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed	x	Other
	Calculation Error		
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

A parafilm was used to cover the flask used for dilution. More volatile compounds may have stuck to the parafilm during inversion causing low recoveries.

Internal QC Check	
Result =	ug/L
Spike Value =	ug/L
% Recovery =	
Evaluation =	
See attached spreadsheet	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Sample was reanalyzed using 2 methods: (1) It was diluted using a flask with a glass stopper, and (2) It was directly injected into 50 ml purged DI water in a sample vial. The direct inject method proved to give more accurate results. In the future, samples will be prepped using the direct inject method. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Results of the QC Standard were acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Results of the makeup PT were acceptable.

Analyst :	Amanda Henry Amanda Henry	Date:	04/25/14
Technical Manager:	Sophia Liang	Date:	04/25/2014
Quality Manager:	Nilda Cox Nilda Cox	Date:	04/14/2014
Laboratory Director:	Fred Haley	Date:	4/25/14

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 9

eurofins | Eaton Analytical

Sample Information

Department:	GCMS	
Method(s):	EPA 524.3	
Analyte(s):	Chlorodibromomethane	
Sample ID:	WS Halomethanes (THMs)	
Sample No.:	201401080863	
Group No.:	463770	
Date Analyzed:	2/7/2014	
Analyst:	Matt Bandel	
Reported Value:	28.4	ug/L
True Value:	39.1	ug/L
% Recovery:	73%	
Acceptance Limits:		31.3-46.9 (80-120%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	102%
LCS2	
RPD_LCS	
MS	107%
MSD	109%
RPD_MS	2%

Problem Identification (Root Cause Analysis)

	Dilution Error	x	Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*The GCMS system is set up to analyze UCMR3 524.3 by SIM. The VOA Lab does not run 524.3 on a regular basis. We have found thru experience that the GCMS system does not respond well switching from SIM to SCAN modes.*
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check

Result =	18.9	ug/L
Spike Value =	19.4	ug/L
% Recovery =	97%	
Acceptance Limits: 15.3-23.9 ug/L		
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

When switching from SIM to SCAN modes we will run more blanks (at least 5) to help stabilize the system prior to initial calibration. The SOP will be updated to be consistent with bench practice. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Result of the makeup PT was acceptable.

Analyst :	Matt Bandel Matt Bandel	Date: 4/25/14
Technical Manager:	Charles Grady Charles Grady	Date: 4-25-14
Quality Manager:	Nilda Cox Nilda Cox	Date: 04/24/2014
Laboratory Director:	Fred Haley Fred Haley	Date: 4/25/14

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 10-16

eurofins | Eaton Analytical

Sample Information			
Department:	GCMS		
Method(s):	EPA 524.2	**Batch QC Results (% Recovery)**	
Analyte(s):	Unregulated Volatiles	LCS1	
Sample ID:	WS Unregulated Volatiles	LCS2	
Sample No.:	201401080847	RPD_LCS	
Group No.:	463770		
Date Analyzed:	2/12/2014		
Analyst:	Kipp Phelan	MS	
Reported Value:	Please see attached spreadsheet.	MS2	
True Value:	Please see attached spreadsheet.	RPD_MS	
% Recovery:	Please see attached spreadsheet.		
Acceptance Limits:	See attached spreadsheet.	See attached spreadsheet.	
Performance Evaluation:	Not Acceptable		

Problem Identification (Root Cause Analysis)			
x	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*Majority of the compounds that passed are bias high which indicates a possible sample preparation error or not enough mixing during sample preparation. Standard, MRL and LCS recoveries were withn 80% of known value. The LCS is a 2nd source.*
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check	
Result =	ug/L
Spike Value =	ug/L
% Recovery =	
Evaluation =	Please see atached spreadsheet.

Corrective Action Taken To Prevent Reoccurrence of Problem:

The analyst diluting the PT sample needs to double check the volume used and the final volume and take more care in sample dilution to ensure there is minimal chance of accidental contamination or over spiking. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Results of the QC Standard were acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Results of the makeup PT were acceptable.

Analyst : Kipp Phelan Date: 4/25/14

Technical Manager: Charles Grady Date: 4-25-14

Quality Manager: for NAC Nilda Cox Date: 4/25/14

Laboratory Director: Fred Haley Date: 4/25/14

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 17

eurofins | Eaton Analytical

Sample Information

Department:	GCMS
Method(s):	EPA 525.2
Analyte(s):	Indeno(1,2,3-cd)pyrene
Sample ID:	WS Regulated Semivolatiles #1
Sample No.:	201401080857
Group No.:	463770
Date Analyzed:	1/25/2014
Analyst:	James Collister
Reported Value:	2.43 ug/L
True Value:	1.61 ug/L
% Recovery:	151%
Acceptance Limits:	0.700-2.30 ug/L (43-143%)
Performance Evaluation:	Not Acceptable

Batch QC Results (% Recovery)	
LCS1	111%
LCS2	128%
RPD_LCS	15%
MS	111%
MS2	
RPD_MS	

Problem Identification (Root Cause Analysis)

	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed	x	Other
	Calculation Error		
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Guard column and analytical column use a pressfit to connect together. During the calibration the pressfit could have had a slight leak causing the calibration to be slightly low in recovery. The calibration for compounds passed criteria. During the analysis of the PT sample the pressfit had a tighter fit which caused a bias high recovery for the compound.

Internal QC Check

Result =	3.53	ug/L
Spike Value	4.69	ug/L
% Recovery	75%	

Acceptance Limits: 2.04-6.71 ug/L

Evaluation = Acceptable

Corrective Action Taken To Prevent Reoccurrence of Problem:

The pressfit is changed daily to insure best possible fit is made. The SOP will be updated to reflect the daily pressfit change. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014. Staff will also be attending PT Sample Preparation, Analysis, and Corrective Action Training May 20/21 2014.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031214M1 as make up study. Result of the makeup PT was acceptable.

Analyst : James Collister Date: 04/25/14

Technical Manager: Charles Grady Date: 4/25/14

Quality Manager: Nilda Cox Date: 04/24/2014

Laboratory Director: Fred Haley Date: 4/25/14

WS-210 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
WS Metals (cat# 590)							
1055	Copper	µg/L	165	190	171 - 209	Not Acceptable	EPA 200.8 5.4 1994
WS Vanadium (cat# 856)							
1185	Vanadium	µg/L	11.2	12.9	11.3 - 14.4	Not Acceptable	EPA 200.8 5.4 1994
WS Cyanide (cat# 556)							
1645	Cyanide, total	mg/L	0.330	0.251	0.188 - 0.314	Not Acceptable	SM4500CN F 22nd ED 2011
1645	Cyanide, total	mg/L	0.330	0.251	0.188 - 0.314	Not Acceptable	SM4500CN F 20th ED 1997
WS Organic Carbon (cat# 557)							
1710	Dissolved Organic Carbon (DOC)	mg/L	5.42	10.4	9.25 - 11.4	Not Acceptable	SM5310C 22nd ED 2011
1710	Dissolved Organic Carbon (DOC)	mg/L	5.42	10.4	9.25 - 11.4	Not Acceptable	SM5310C 20th ED 1996
2040	Total Organic Carbon (TOC)	mg/L	5.34	10.4	8.32 - 12.5	Not Acceptable	SM5310C 22nd ED 2011
2040	Total Organic Carbon (TOC)	mg/L	5.34	10.4	8.32 - 12.5	Not Acceptable	SM5310C 20th ED 1996
WS Gasoline Additives (GAD) (cat# 905)							
4420	Tert-Butyl Alcohol	µg/L	67.5	43.5	25.9 - 60.6	Not Acceptable	EPA 524.2 4.1 1995
WS Halomethanes (THMs) (cat# 842)							
4395	Bromodichloromethane	µg/L	19.9	25.9	20.7 - 31.1	Not Acceptable	EPA 551.1 1 1992
4575	Chlorodibromomethane	µg/L	28.4	39.1	31.3 - 46.9	Not Acceptable	EPA 524.3 1 2009

All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

WS-210 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/24/14
Study Dates: 01/06/14 - 02/20/14

2009 TNI Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
WS Halomethanes (THMs) (cat# 842)							
4505	Chloroform	µg/L	15.6	22.7	18.2 - 27.2	Not Acceptable	EPA 551.1 1 1992
WS Unregulated Volatiles (cat# 841)							
4385	Bromobenzene	µg/L	14.3	11.8	9.44 - 14.2	Not Acceptable	EPA 524.2 4.1 1995
4445	tert-Butylbenzene	µg/L	14.1	10.8	8.64 - 13.0	Not Acceptable	EPA 524.2 4.1 1995
4615	1,3-Dichlorobenzene	µg/L	15.7	12.4	9.92 - 14.9	Not Acceptable	EPA 524.2 4.1 1995
4660	1,3-Dichloropropane	µg/L	17.7	13.9	11.1 - 16.7	Not Acceptable	EPA 524.2 4.1 1995
4900	Isopropylbenzene	µg/L	22.0	16.0	12.8 - 19.2	Not Acceptable	EPA 524.2 4.1 1995
5110	1,1,2,2-Tetrachloroethane	µg/L	4.89	3.08	1.85 - 4.31	Not Acceptable	EPA 524.2 4.1 1995
5180	1,2,3-Trichloropropane (TCP)	µg/L	13.5	10.3	8.24 - 12.4	Not Acceptable	EPA 524.2 4.1 1995
WS Regulated Semivolatiles Ampule #1 (cat# 848)							
6315	Indeno(1,2,3-cd)pyrene	µg/L	2.43	1.61	0.700 - 2.30	Not Acceptable	EPA 525.2 2 1995

eurofins

Eaton Analytical

PT Study: ERA WS 210, January 2014 Study

Description: Summary of Not Acceptable Results - LCS Data

Report Date: April 14, 2014

Department	Method	Analyte	Sample No.	Batch QC Results (% Recovery) LCS1	LCS2	RPD_LCS	Corrective Action No.
GC	EPA 551.1	Bromodichloromethane	201401080862	97	96	1	7
GC	EPA 551.1	Chloroform	201401080862	96	97	1	8
GCMS	EPA 524.2	Bromobenzene	201401080847	137	133	2.7	10
GCMS	EPA 524.2	tert-Butylbenzene	201401080847	123	125	1.1	11
GCMS	EPA 524.2	1,3-Dichlorobenzene	201401080847	133	136	2.1	12
GCMS	EPA 524.2	1,3-Dichloropropane	201401080847	108	112	3.6	13
GCMS	EPA 524.2	Isopropylbenzene	201401080847	121	122	0.66	14
GCMS	EPA 524.2	1,1,2,2-Tetrachloroethane	201401080847	123	128	4	15
GCMS	EPA 524.2	1,2,3-Trichloropropane	201401080847	107	112	4.4	16

PT Study: ERA WS-210 January 2014 PT Study

Description:

Report Date: April 14, 2014

Internal QC Check Standard Results

Department	Method	Analyte	Sample No.	Reported Value	True Value	Unit	% Rec.	Acceptance Limits	Date of Analysis	Performance Evaluation	Corrective Action No.
GC	EPA 551.1	Bromodichloromethane	201403130405	37.8	42.4	ug/L	89.2%	34.3-53.0	3/29/2014	Acceptable	7
GC	EPA 551.1	Chloroform	201403130405	21.6	24.7	ug/L	87.4%	19.7-30.1	3/29/2014	Acceptable	8
GCMS	EPA 524.2	Bromobenzene	201403130406	12.4	11.8	ug/L	105.1%	9.20-14.3	4/8/2014	Acceptable	10
GCMS	EPA 524.2	tert-Butylbenzene	201403130406	11.2	10.8	ug/L	103.7%	7.77-13.5	4/8/2014	Acceptable	11
GCMS	EPA 524.2	1,3-Dichlorobenzene	201403130406	12.8	12.4	ug/L	103.2%	9.75-15.3	4/8/2014	Acceptable	12
GCMS	EPA 524.2	1,3-Dichloropropane	201403130406	15.2	13.9	ug/L	109.4%	11.2-17.0	4/8/2014	Acceptable	13
GCMS	EPA 524.2	Isopropylbenzene	201403130406	17.6	16.0	ug/L	110.0%	12.0-20.2	4/8/2014	Acceptable	14
GCMS	EPA 524.2	1,1,2,2-Tetrachloroethane	201403130406	3.00	3.08	ug/L	97.4%	2.34-3.88	4/8/2014	Acceptable	15
GCMS	EPA 524.2	1,2,3-Trichloropropane	201403130406	10.7	10.3	ug/L	103.9%	7.13-13.6	4/8/2014	Acceptable	16

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-210 January 2014 PT Study**

Corrective Action Report No.: 1

eurofins | Eaton Analytical

Sample Information

Department:	Microbiology-Folsom
Method(s):	SM 9223B
Analyte(s):	Total Coliforms / E.coli
Sample ID:	WS Source Water Microbe
Sample No.:	201401090387
Group No.:	463924
Date Analyzed:	1/21/2014
Analyst:	Magnolia Busse
Reported Value:	Total Coliforms/ E.coli: 23.0 MPN/100ml
True Value:	Total Coliforms/ E.coli: 58.0 MPN/100ml
% Recovery:	Total Coliforms/ E.coli; 40%
Acceptance Limits:	Total: 26.7-86.2; E.coli: 25.9-85.5 MPN/100ml
Performance Evaluation:	Not Acceptable

Batch QC Results (% Recovery)

LCS1	N/A
LCS2	
RPD_LCS	
MS	N/A
MSD	
RPD_MS	

Problem Identification (Root Cause Analysis)

- ___ Dilution Error
- ___ QC Limits not met
- x SOP not followed
- ___ Calculation Error
- ___ Lab Contamination
- ___ Log in Error
- ___ Training
- ___ Reporting Error
- ___ Instrument Problems
- ___ Standards Problems
- ___ Other

Internal QC Check

Result =	33.0/ 33.0	MPN/100ml
Spike Value =	Total 75.1/ Ecoli 75.2	MPN/100ml
% Recovery =	44/ 44%	
Acceptance Limits	45.4-124/ 46.1-123	MPN/100ml
Evaluation =	Not Acceptable	MPN/100ml

Corrective Action Taken To Prevent Reoccurrence of Problem:

Give pellet proper time to acclimate on counter and in the buffer. Follow procedures outlined in the SOP and manufacturer's directions.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was not acceptable. A 2nd set of QCS/Internal PT was ordered. Also, Eurofins Eaton Analytical will participate in ERA's 'Quik' response PT 041014C as make up study.

Joline Neal for Magnolia Busse 04/22/14

Analyst: _____ Date: 04/22/14
Magnolia Busse

Technical Manager: _____ Date: 04/22/14
Joline Neal

Quality Manager: Yoon Chaffin NBC Date: 4/16/2014
Nilda Cox

Laboratory Director: _____ Date: 04/22/14
Joline Neal

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

WS-216 Final Report

WatR™ Supply Proficiency Testing

WatR™ Supply Study

Open Date: 07/07/14

Close Date: 08/21/14

Report Issued Date: 08/25/14

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-216**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hardness (cat# 555)												
1035	Calcium	mg/L	86.1	85.7	72.8 - 98.6	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.251	85.2	3.45	
1085	Magnesium	mg/L	16.3	15.8	13.4 - 18.2	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.537	15.9	0.818	
1155	Sodium	mg/L	40.0	38.4	32.6 - 44.2	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.606	38.7	2.20	
1550	Calcium Hardness as CaCO3	mg/L	215	214	182 - 246	Acceptable	EPA 200.7 4.4 1994	7/31/2014	0.380	212	8.77	
1755	Total Hardness as CaCO3	mg/L	282	279	237 - 321	Acceptable	EPA 200.7 4.4 1994	7/31/2014	0.388	278	9.75	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		85.7	72.8 - 98.6	Not Reported				85.2	3.45	
1085	Magnesium	mg/L		15.8	13.4 - 18.2	Not Reported				15.9	0.818	
1155	Sodium	mg/L		38.4	32.6 - 44.2	Not Reported				38.7	2.20	
1550	Calcium Hardness as CaCO3	mg/L	215	214	182 - 246	Acceptable	SM2340B 22nd ED 2011	7/31/2014	0.380	212	8.77	
1755	Total Hardness as CaCO3	mg/L	282	279	237 - 321	Acceptable	SM2340B 22nd ED 2011	7/31/2014	0.388	278	9.75	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		85.7	72.8 - 98.6	Not Reported				85.2	3.45	
1085	Magnesium	mg/L		15.8	13.4 - 18.2	Not Reported				15.9	0.818	
1155	Sodium	mg/L		38.4	32.6 - 44.2	Not Reported				38.7	2.20	
1550	Calcium Hardness as CaCO3	mg/L	215	214	182 - 246	Acceptable	SM2340B 20th ED 1997	7/31/2014	0.380	212	8.77	
1755	Total Hardness as CaCO3	mg/L	282	279	237 - 321	Acceptable	SM2340B 20th ED 1997	7/31/2014	0.388	278	9.75	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	59.3	65.1	58.6 - 71.6	Acceptable	SM2320B 22nd ED 2011	7/29/2014	-2.14	65.0	2.66	
1575	Chloride	mg/L	25.5	28.2	24.0 - 32.4	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-2.25	27.6	0.955	
1610	Conductivity at 25°C	µmhos/cm	472	461	415 - 507	Acceptable	SM2510B 22nd ED 2011	7/29/2014	0.121	470	14.8	
1730	Fluoride	mg/L	6.69	6.82	6.14 - 7.50	Acceptable	EPA 300.0 2.1 1993	7/30/2014	0.0538	6.68	0.267	
1820	Nitrate + Nitrite as N	mg/L	8.41	8.86	7.53 - 10.2	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-0.770	8.69	0.359	
1810	Nitrate as N	mg/L	8.41	8.86	7.97 - 9.75	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-0.820	8.69	0.341	
1125	Potassium	mg/L	38.4	38.8	33.0 - 44.6	Acceptable	EPA 200.7 4.4 1994	7/29/2014	0.449	37.7	1.63	
2000	Sulfate	mg/L	59.4	60.6	51.5 - 69.7	Acceptable	EPA 300.0 2.1 1993	7/29/2014	0.00781	59.4	2.25	
1955	Total Dissolved Solids at 180°C	mg/L	362	387	310 - 464	Acceptable	SM2540C 22nd ED 2011	8/6/2014	0.693	351	16.1	
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	59.3	65.1	58.6 - 71.6	Acceptable	SM2320B 20th ED 1997	7/29/2014	-2.14	65.0	2.66	
1575	Chloride	mg/L		28.2	24.0 - 32.4	Not Reported				27.6	0.955	
1610	Conductivity at 25°C	µmhos/cm	472	461	415 - 507	Acceptable	SM2510B 20th ED 1997	7/29/2014	0.121	470	14.8	
1730	Fluoride	mg/L	6.61	6.82	6.14 - 7.50	Acceptable	SM4500F- C 22nd ED 2011	7/29/2014	-0.245	6.68	0.267	
1820	Nitrate + Nitrite as N	mg/L	8.96	8.86	7.53 - 10.2	Acceptable	EPA 353.2 2 1993	7/29/2014	0.763	8.69	0.359	
1810	Nitrate as N	mg/L	8.96	8.86	7.97 - 9.75	Acceptable	EPA 353.2 2 1993	7/29/2014	0.791	8.69	0.341	
1125	Potassium	mg/L		38.8	33.0 - 44.6	Not Reported				37.7	1.63	
2000	Sulfate	mg/L		60.6	51.5 - 69.7	Not Reported				59.4	2.25	
1955	Total Dissolved Solids at 180°C	mg/L	362	387	310 - 464	Acceptable	SM2540C 20th ED 1997	8/6/2014	0.693	351	16.1	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L		65.1	58.6 - 71.6	Not Reported				65.0	2.66	
1575	Chloride	mg/L		28.2	24.0 - 32.4	Not Reported				27.6	0.955	
1610	Conductivity at 25°C	µmhos/cm		461	415 - 507	Not Reported				470	14.8	
1730	Fluoride	mg/L	6.61	6.82	6.14 - 7.50	Acceptable	SM4500F- C 20th ED 1997	7/29/2014	-0.245	6.68	0.267	
1820	Nitrate + Nitrite as N	mg/L		8.86	7.53 - 10.2	Not Reported				8.69	0.359	
1810	Nitrate as N	mg/L		8.86	7.97 - 9.75	Not Reported				8.69	0.341	
1125	Potassium	mg/L		38.8	33.0 - 44.6	Not Reported				37.7	1.63	
2000	Sulfate	mg/L		60.6	51.5 - 69.7	Not Reported				59.4	2.25	
1955	Total Dissolved Solids at 180°C	mg/L		387	310 - 464	Not Reported				351	16.1	
WS pH (cat# 552)												
1900	pH	S.U.	7.46	7.44	7.24 - 7.64	Acceptable	EPA 150.1 1982	7/29/2014	-0.0109	7.46	0.0492	
WS pH (cat# 552)												
1900	pH	S.U.	7.46	7.44	7.24 - 7.64	Acceptable	SM4500H+ B 22nd ED 2011	7/29/2014	-0.0109	7.46	0.0492	
WS pH (cat# 552)												
1900	pH	S.U.	7.46	7.44	7.24 - 7.64	Acceptable	SM4500H+ B 20th ED 1996	7/29/2014	-0.0109	7.46	0.0492	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	353	360	288 - 432	Acceptable	EPA 200.7 4.4 1994	7/28/2014	-0.311	360	22.2	
1005	Antimony	µg/L		11.7	8.19 - 15.2	Not Reported				11.8	0.824	
1010	Arsenic	µg/L		19.9	13.9 - 25.9	Not Reported				20.2	2.38	
1015	Barium	µg/L	696	687	584 - 790	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.413	685	25.7	
1020	Beryllium	µg/L	16.1	15.6	13.3 - 17.9	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.236	15.9	0.763	
1025	Boron	µg/L	1250	1330	1130 - 1530	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.992	1320	73.1	
1030	Cadmium	µg/L	9.69	10.1	8.08 - 12.1	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.823	10.2	0.644	
1040	Chromium	µg/L	44.3	45.0	38.2 - 51.8	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.312	45.0	2.36	
1055	Copper	µg/L	1210	1250	1120 - 1380	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.648	1250	56.3	
1070	Iron	µg/L	489	472	401 - 543	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.578	473	27.6	
1075	Lead	µg/L		11.8	8.26 - 15.3	Not Reported				12.0	1.00	
1090	Manganese	µg/L	720	667	567 - 767	Acceptable	EPA 200.7 4.4 1994	7/24/2014	1.30	682	29.4	
1100	Molybdenum	µg/L	25.3	25.4	21.6 - 29.2	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.184	25.0	1.45	
1105	Nickel	µg/L	297	281	239 - 323	Acceptable	EPA 200.7 4.4 1994	7/24/2014	1.19	278	16.0	
1140	Selenium	µg/L		87.9	70.3 - 105	Not Reported				87.6	5.43	
1150	Silver	µg/L	235	230	161 - 299	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.377	229	14.6	
1165	Thallium	µg/L		6.92	4.84 - 9.00	Not Reported				6.88	0.546	
1185	Vanadium	µg/L	717	725	616 - 834	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.100	714	30.0	
1190	Zinc	µg/L	650	647	550 - 744	Acceptable	EPA 200.7 4.4 1994	7/24/2014	0.0359	649	33.1	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	361	360	288 - 432	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.0489	360	22.2	
1005	Antimony	µg/L	12.2	11.7	8.19 - 15.2	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.476	11.8	0.824	
1010	Arsenic	µg/L	18.8	19.9	13.9 - 25.9	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.597	20.2	2.38	
1015	Barium	µg/L	693	687	584 - 790	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.296	685	25.7	
1020	Beryllium	µg/L	15.5	15.6	13.3 - 17.9	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.550	15.9	0.763	
1025	Boron	µg/L		1330	1130 - 1530	Not Reported				1320	73.1	
1030	Cadmium	µg/L	10.4	10.1	8.08 - 12.1	Acceptable	EPA 200.8 5.4 1994	8/4/2014	0.279	10.2	0.644	
1040	Chromium	µg/L	43.1	45.0	38.2 - 51.8	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.821	45.0	2.36	
1055	Copper	µg/L	1210	1250	1120 - 1380	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.648	1250	56.3	
1070	Iron	µg/L		472	401 - 543	Not Reported				473	27.6	
1075	Lead	µg/L	11.8	11.8	8.26 - 15.3	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.180	12.0	1.00	
1090	Manganese	µg/L	661	667	567 - 767	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.703	682	29.4	
1100	Molybdenum	µg/L	24.4	25.4	21.6 - 29.2	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.435	25.0	1.45	
1105	Nickel	µg/L	265	281	239 - 323	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.812	278	16.0	
1140	Selenium	µg/L	86.8	87.9	70.3 - 105	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.139	87.6	5.43	
1150	Silver	µg/L	238	230	161 - 299	Acceptable	EPA 200.8 5.4 1994	8/18/2014	0.583	229	14.6	
1165	Thallium	µg/L	6.62	6.92	4.84 - 9.00	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.474	6.88	0.546	
1185	Vanadium	µg/L	693	725	616 - 834	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.699	714	30.0	
1190	Zinc	µg/L	643	647	550 - 744	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-0.175	649	33.1	
WS Mercury (cat# 551)												
1095	Mercury	µg/L	2.04	4.45	3.12 - 5.78	Not Acceptable	EPA 245.1 3 1994	7/24/2014	-6.82	4.71	0.392	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	23.8	26.4	21.1 - 31.7	Acceptable	EPA 218.6 3.3 1994	7/28/2014	-1.09	26.1	2.10	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	28.0	26.4	21.1 - 31.7	Acceptable	SM3500Cr B 20th ED 1997	7/25/2014	0.906	26.1	2.10	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	28.0	26.4	21.1 - 31.7	Acceptable	SM 3500-Cr B 22nd ED 2011	7/25/2014	0.906	26.1	2.10	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	24.7	26.4	21.1 - 31.7	Acceptable	EPA 218.7 1 2011	7/29/2014	-0.666	26.1	2.10	
WS Vanadium (cat# 856)												
1185	Vanadium	µg/L	12.7	13.5	11.8 - 15.1	Acceptable	EPA 200.7 4.4 1994	7/24/2014	-0.865	13.2	0.529	
WS Vanadium (cat# 856)												
1185	Vanadium	µg/L	12.3	13.5	11.8 - 15.1	Acceptable	EPA 200.8 5.4 1994	8/4/2014	-1.62	13.2	0.529	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	120	122	85.4 - 159	Acceptable	EPA 300.1 1 2000	7/28/2014	0.277	117	9.87	
1595	Chlorite	µg/L	352	339	237 - 441	Acceptable	EPA 300.1 1 2000	7/28/2014	0.149	350	15.4	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	122	122	85.4 - 159	Acceptable	EPA 300.0 2.1 1993	7/28/2014	0.480	117	9.87	
1595	Chlorite	µg/L	349	339	237 - 441	Acceptable	EPA 300.0 2.1 1993	7/28/2014	-0.0462	350	15.4	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	120	122	85.4 - 159	Acceptable	EPA 300.1 1997	7/28/2014	0.277	117	9.87	
1595	Chlorite	µg/L	352	339	237 - 441	Acceptable	EPA 300.1 1997	7/28/2014	0.149	350	15.4	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	122	122	85.4 - 159	Acceptable	EPA 9056 1996	7/28/2014	0.480	117	9.87	
1595	Chlorite	µg/L		339	237 - 441	Not Reported				350	15.4	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	27.2	29.7	20.8 - 38.6	Acceptable	EPA 300.1 1 2000	7/31/2014	-0.420	28.0	1.85	
1540	Bromide	µg/L	130	127	108 - 146	Acceptable	EPA 300.1 1 2000	7/28/2014	0.566	125	9.71	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	27.2	29.7	20.8 - 38.6	Acceptable	EPA 300.1 1997	7/31/2014	-0.420	28.0	1.85	
1540	Bromide	µg/L	130	127	108 - 146	Acceptable	EPA 300.1 1997	7/28/2014	0.566	125	9.71	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L		29.7	20.8 - 38.6	Not Reported				28.0	1.85	
1540	Bromide	µg/L	128	127	108 - 146	Acceptable	EPA 300.0 2.1 1993	7/28/2014	0.360	125	9.71	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	28.9	29.7	20.8 - 38.6	Acceptable	EPA 317.0 2	7/31/2014	0.496	28.0	1.85	
1540	Bromide	µg/L		127	108 - 146	Not Reported				125	9.71	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	0.923	0.921	0.783 - 1.06	Acceptable	EPA 300.0 2.1 1993	7/29/2014	-0.0528	0.926	0.0563	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	0.915	0.921	0.783 - 1.06	Acceptable	EPA 353.2 2 1993	7/29/2014	-0.195	0.926	0.0563	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	0.944	0.921	0.783 - 1.06	Acceptable	EPA 300.1 1 2000	7/30/2014	0.320	0.926	0.0563	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	0.944	0.921	0.783 - 1.06	Acceptable	EPA 300.1 1997	7/30/2014	0.320	0.926	0.0563	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.95	2.74	2.33 - 3.15	Acceptable	EPA 365.1 2 1993	7/22/2014	1.39	2.75	0.141	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.95	2.74	2.33 - 3.15	Acceptable	SM4500P E 22nd ED 2011	7/22/2014	1.39	2.75	0.141	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.95	2.74	2.33 - 3.15	Acceptable	SM4500P E 20th ED 1997	7/22/2014	1.39	2.75	0.141	
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	1.18	1.16	0.931 - 1.39	Acceptable	SM4500Cl G 22nd ED 2011	7/16/2014	0.363	1.15	0.0849	
1940	Total Residual Chlorine	mg/L	1.18	1.16	0.974 - 1.34	Acceptable	SM4500Cl G 22nd ED 2011	7/16/2014	0.127	1.17	0.0739	
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	1.18	1.16	0.931 - 1.39	Acceptable	SM4500Cl G 20th ED 1993	7/16/2014	0.363	1.15	0.0849	
1940	Total Residual Chlorine	mg/L	1.18	1.16	0.974 - 1.34	Acceptable	SM4500Cl G 20th ED 1993	7/16/2014	0.127	1.17	0.0739	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.340	0.381	0.286 - 0.476	Acceptable	EPA 335.4 1993	7/31/2014	-1.14	0.378	0.0330	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.340	0.381	0.286 - 0.476	Acceptable	SM4500CN G 20th ED 1997	7/31/2014	-1.14	0.378	0.0330	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.340	0.381	0.286 - 0.476	Acceptable	SM4500CN G 22nd ED 2011	7/31/2014	-1.14	0.378	0.0330	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.373	0.381	0.286 - 0.476	Acceptable	SM4500CN F 22nd ED 2011	8/6/2014	-0.144	0.378	0.0330	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.373	0.381	0.286 - 0.476	Acceptable	SM4500CN F 20th ED 1997	8/6/2014	-0.144	0.378	0.0330	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	3.13	3.20	2.82 - 3.61	Acceptable	SM5310C 22nd ED 2011	7/15/2014	-0.660	3.24	0.164	
2040	Total Organic Carbon (TOC)	mg/L	3.08	3.20	2.56 - 3.84	Acceptable	SM5310C 22nd ED 2011	7/14/2014	-0.924	3.25	0.189	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	3.13	3.20	2.82 - 3.61	Acceptable	SM5310C 20th ED 1996	7/15/2014	-0.660	3.24	0.164	
2040	Total Organic Carbon (TOC)	mg/L	3.08	3.20	2.56 - 3.84	Acceptable	SM5310C 20th ED 1996	7/14/2014	-0.924	3.25	0.189	
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	15.4	14.5	11.6 - 17.4	Acceptable	EPA 314.0 1 1999	7/24/2014	0.855	14.4	1.21	
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	15.2	14.5	11.6 - 17.4	Acceptable	EPA 331.0 1.0 2005	7/22/2014	0.690	14.4	1.21	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	51.5	46.6	39.6 - 53.6	Acceptable	EPA 200.7 4.4 1994	7/24/2014	1.62	47.6	2.42	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	46.4	46.6	39.6 - 53.6	Acceptable	SM4500SiO2 C 22nd ED 2011	7/25/2014	-0.481	47.6	2.42	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	46.4	46.6	39.6 - 53.6	Acceptable	SM4500SiO2 C 20th ED 1997	7/25/2014	-0.481	47.6	2.42	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	46.4	46.6	39.6 - 53.6	Acceptable	SM4500Si D 19th ED 1993	7/25/2014	-0.481	47.6	2.42	
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.561	0.526	0.381 - 0.661	Acceptable	SM5540C 20th ED 1993	7/22/2014	0.425	0.535	0.0621	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.561	0.526	0.381 - 0.661	Acceptable	SM5540C 22nd ED 2011	7/22/2014	0.425	0.535	0.0621	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	1.97	1.82	1.42 - 2.22	Acceptable	SM2330B 21st ED 2000	7/30/2014	1.11	1.84	0.120	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	1.97	1.82	1.42 - 2.22	Acceptable	SM2330B 20th ED 1993	7/30/2014	1.11	1.84	0.120	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	1.97	1.82	1.42 - 2.22	Acceptable	EPA 9040C 2002	7/30/2014	1.11	1.84	0.120	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	5.23	5.61	4.77 - 6.30	Acceptable	EPA 180.1 2 1993	7/18/2014	-0.673	5.44	0.312	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	5.23	5.61	4.77 - 6.30	Acceptable	SM2130B 22nd ED 2011	7/18/2014	-0.673	5.44	0.312	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	5.23	5.61	4.77 - 6.30	Acceptable	SM2130B 20th ED 1994	7/18/2014	-0.673	5.44	0.312	
WS Color (cat# 859)												
1605	Color	PC units	25.0	25.0	15.0 - 35.0	Acceptable	SM2120B 22nd ED 2011	7/21/2014	0.202	24.6	2.17	
WS Color (cat# 859)												
1605	Color	PC units	25.0	25.0	15.0 - 35.0	Acceptable	SM2120B 20th ED 1993	7/21/2014	0.202	24.6	2.17	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.0575	0.0513	0.0394 - 0.0709	Acceptable	SM5910B 22nd ED 2011	8/4/2014	0.709	0.0541	0.00484	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.0575	0.0513	0.0394 - 0.0709	Acceptable	SM5910B 20th ED 1994	8/4/2014	0.709	0.0541	0.00484	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-216**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/25/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 5, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 1, 4 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 8 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/25/2014	0			
2530	Fecal Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	7/23/2014	0			
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	7/23/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 5, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 1, 4 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 8 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 5, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 1, 4 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 8 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/25/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 5, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 1, 4 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 8 and 10

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/25/2014	0			
2530	Fecal Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	7/23/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 5, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 1, 4 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 8 and 10

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 5, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 1, 4 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 3
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 8 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 5 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 1, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 2
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 4 and 9

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 5 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 1, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 2
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 4 and 9

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	7/29/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 5 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 1, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 2
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 4 and 9

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 5 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 1, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 2
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 4 and 9

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 5 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 1, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 2
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 4 and 9

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	7/29/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 5 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 1, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 2
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 4 and 9

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 9 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 3 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 6 and 8

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 9 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 3 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 6 and 8

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	7/16/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 9 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 3 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 6 and 8

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 9 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 3 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 6 and 8

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 9 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 3 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 6 and 8

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	7/16/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 9 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 3 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 6 and 8

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 5
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 1
Blank - No Organism, Samples 9 and 10

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 5
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 1
Blank - No Organism, Samples 9 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	8/2/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 5
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 1
Blank - No Organism, Samples 9 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 5
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 1
Blank - No Organism, Samples 9 and 10

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 5
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 1
Blank - No Organism, Samples 9 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/2/2014	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 2, 3 and 5
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 1
Blank - No Organism, Samples 9 and 10

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	170	158	58.2 - 198	Acceptable	SM9223B MPN online	7/16/2014	1.78	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	170	158	59.3 - 194	Acceptable	SM9223B MPN online	7/16/2014	1.87	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	170	158	58.2 - 198	Acceptable	SM9223B MPN 20th ED 1997	7/16/2014	1.78	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	170	158	59.3 - 194	Acceptable	SM9223B MPN 20th ED 1997	7/16/2014	1.87	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	104	158	58.2 - 198	Acceptable	SM9223 COLertQT online	7/16/2014	-0.0984	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	104	158	59.3 - 194	Acceptable	SM9223 COLertQT online	7/16/2014	-0.0942	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	104	158	58.2 - 198	Acceptable	SM9223 COLertQT 20th ED 1998	7/16/2014	-0.0984	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	104	158	59.3 - 194	Acceptable	SM9223 COLertQT 20th ED 1998	7/16/2014	-0.0942	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	49.0	158	58.2 - 198	Not Acceptable	SM9223 COLert18 online	7/16/2014	-1.67	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	49.0	158	59.3 - 194	Not Acceptable	SM9223 COLert18 online	7/16/2014	-1.73	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	49.0	158	58.2 - 198	Not Acceptable	SM9223 COLert18 20th ED 1997	7/16/2014	-1.67	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	49.0	158	59.3 - 194	Not Acceptable	SM9223 COLert18 20th ED 1997	7/16/2014	-1.73	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	116	158	58.2 - 198	Acceptable	SM9223 COLt18QT online	7/16/2014	0.244	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	116	158	59.3 - 194	Acceptable	SM9223 COLt18QT online	7/16/2014	0.263	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		127	42.0 - 133	Not Reported				74.7	22.7	
2530	Fecal Coliforms (MF)	CFU/100mL		127	7.00 - 191	Not Reported				36.0	46.2	
2525	E.coli (MF)	CFU/100mL		127	22.0 - 128	Not Reported				53.4	26.4	
2500	Total Coliforms (MPN)	MPN/100mL	116	158	58.2 - 198	Acceptable	SM9223 COLt18QT 20th ED 1998	7/16/2014	0.244	107	35.1	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	16.3 - 258	Not Reported				64.8	60.5	
2525	E.coli (MPN)	MPN/100mL	116	158	59.3 - 194	Acceptable	SM9223 COLt18QT 20th ED 1998	7/16/2014	0.263	107	33.6	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	110	122	81.0 - 151	Acceptable	SM9215B PCA 21st ED 2000	7/25/2014	-0.0227	110	17.7	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		111	69.9 - 201	Not Reported				119	32.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	110	122	81.0 - 151	Acceptable	SM9215B PCA 20th ED 1998	7/25/2014	-0.0227	110	17.7	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		111	69.9 - 201	Not Reported				119	32.8	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-216**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chloral Hydrate (cat# 853)												
4460	Chloral Hydrate	µg/L	12.2	19.6	4.24 - 31.4	Acceptable	EPA 551.1 1 1992	7/23/2014	0.656	9.94	3.45	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	29.8	28.6	17.2 - 40.0	Acceptable	SM 6251 B 22nd ED 2007	7/24/2014	0.522	28.5	2.48	
9315	Bromochloroacetic acid	µg/L	19.7	19.2	11.5 - 26.9	Acceptable	SM 6251 B 22nd ED 2007	7/24/2014	0.384	18.9	1.96	
9336	Chloroacetic acid	µg/L	41.5	40.5	24.3 - 56.7	Acceptable	SM 6251 B 22nd ED 2007	7/24/2014	0.349	39.5	5.84	
9357	Dibromoacetic acid	µg/L	25.2	23.5	14.1 - 32.9	Acceptable	SM 6251 B 22nd ED 2007	7/24/2014	0.517	23.9	2.45	
9360	Dichloroacetic acid	µg/L	24.5	25.1	15.1 - 35.1	Acceptable	SM 6251 B 22nd ED 2007	7/24/2014	0.127	24.2	2.54	
9642	Trichloroacetic acid	µg/L	26.4	27.1	16.3 - 37.9	Acceptable	SM 6251 B 22nd ED 2007	7/24/2014	-0.170	27.0	3.30	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	29.8	28.6	17.2 - 40.0	Acceptable	SM 6251 B 21st ED 1994	7/24/2014	0.522	28.5	2.48	
9315	Bromochloroacetic acid	µg/L	19.7	19.2	11.5 - 26.9	Acceptable	SM 6251 B 21st ED 1994	7/24/2014	0.384	18.9	1.96	
9336	Chloroacetic acid	µg/L	41.5	40.5	24.3 - 56.7	Acceptable	SM 6251 B 21st ED 1994	7/24/2014	0.349	39.5	5.84	
9357	Dibromoacetic acid	µg/L	25.2	23.5	14.1 - 32.9	Acceptable	SM 6251 B 21st ED 1994	7/24/2014	0.517	23.9	2.45	
9360	Dichloroacetic acid	µg/L	24.5	25.1	15.1 - 35.1	Acceptable	SM 6251 B 21st ED 1994	7/24/2014	0.127	24.2	2.54	
9642	Trichloroacetic acid	µg/L	26.4	27.1	16.3 - 37.9	Acceptable	SM 6251 B 21st ED 1994	7/24/2014	-0.170	27.0	3.30	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	41.6	41.7	31.2 - 53.0	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.777	43.2	2.02	
4420	Tert-Butyl Alcohol	µg/L	23.7	24.0	14.3 - 33.4	Acceptable	EPA 524.2 4.1 1995	8/8/2014	-0.239	24.7	4.21	
5000	tert-Butyl methyl ether (MTBE)	µg/L	43.2	42.7	34.2 - 51.2	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.388	44.8	4.12	
9375	Di-isopropylether (DIPE)	µg/L	15.0	16.1	13.1 - 20.1	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.70	17.0	1.17	
4770	Ethyl-t-butylether (ETBE)	µg/L	25.9	26.2	20.7 - 33.8	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.736	27.0	1.48	
5175	Trichlorofluoromethane (Freon 11)	µg/L	18.1	17.7	10.6 - 24.8	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.892	20.9	3.19	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	25.4	22.9	15.3 - 30.5	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.161	26.0	3.73	
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	42.5	41.7	31.2 - 53.0	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.331	43.2	2.02	
4420	Tert-Butyl Alcohol	µg/L	22.3	24.0	14.3 - 33.4	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.572	24.7	4.21	
5000	tert-Butyl methyl ether (MTBE)	µg/L	48.5	42.7	34.2 - 51.2	Acceptable	EPA 524.3 1 2009	8/11/2014	0.898	44.8	4.12	
9375	Di-isopropylether (DIPE)	µg/L	17.0	16.1	13.1 - 20.1	Acceptable	EPA 524.3 1 2009	8/11/2014	0.0142	17.0	1.17	
4770	Ethyl-t-butylether (ETBE)	µg/L	27.0	26.2	20.7 - 33.8	Acceptable	EPA 524.3 1 2009	8/11/2014	0.00518	27.0	1.48	
5175	Trichlorofluoromethane (Freon 11)	µg/L	20.0	17.7	10.6 - 24.8	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.296	20.9	3.19	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	25.9	22.9	15.3 - 30.5	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.0268	26.0	3.73	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	16.6	16.0	12.8 - 19.2	Acceptable	EPA 551.1 1 1992	7/18/2014	0.302	16.2	1.26	
4400	Bromoform	µg/L	10.4	9.60	7.68 - 11.5	Acceptable	EPA 551.1 1 1992	7/18/2014	1.03	9.27	1.09	
4575	Chlorodibromomethane	µg/L	10.5	9.96	7.97 - 12.0	Acceptable	EPA 551.1 1 1992	7/18/2014	0.693	9.79	1.02	
4505	Chloroform	µg/L	17.5	16.8	13.4 - 20.2	Acceptable	EPA 551.1 1 1992	7/18/2014	0.0526	17.4	1.68	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	14.9	16.0	12.8 - 19.2	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.04	16.2	1.26	
4400	Bromoform	µg/L	8.26	9.60	7.68 - 11.5	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.930	9.27	1.09	
4575	Chlorodibromomethane	µg/L	8.45	9.96	7.97 - 12.0	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.32	9.79	1.02	
4505	Chloroform	µg/L	15.4	16.8	13.4 - 20.2	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.20	17.4	1.68	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	16.2	16.0	12.8 - 19.2	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.0147	16.2	1.26	
4400	Bromoform	µg/L	9.15	9.60	7.68 - 11.5	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.113	9.27	1.09	
4575	Chlorodibromomethane	µg/L	9.36	9.96	7.97 - 12.0	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.424	9.79	1.02	
4505	Chloroform	µg/L	17.8	16.8	13.4 - 20.2	Acceptable	EPA 524.3 1 2009	8/11/2014	0.231	17.4	1.68	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	4.43	4.65	2.79 - 6.51	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.831	4.74	0.370	
4455	Carbon tetrachloride	µg/L	11.8	11.8	9.44 - 14.2	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.0112	11.8	1.38	
4475	Chlorobenzene	µg/L	15.6	15.0	12.0 - 18.0	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.432	15.1	1.09	
4610	1,2-Dichlorobenzene	µg/L	9.40	9.53	5.72 - 13.3	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.166	9.50	0.573	
4620	1,4-Dichlorobenzene	µg/L	8.28	6.04	3.62 - 8.46	Acceptable	EPA 524.2 4.1 1995	8/1/2014	4.05	5.86	0.597	
4635	1,2-Dichloroethane	µg/L	6.75	7.50	4.50 - 10.5	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.54	7.62	0.561	
4640	1,1-Dichloroethylene	µg/L	5.45	4.77	2.86 - 6.68	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.311	5.25	0.654	
4645	cis-1,2-Dichloroethylene	µg/L	9.58	10.6	8.48 - 12.7	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.05	10.5	0.842	
4700	trans-1,2-Dichloroethylene	µg/L	12.0	12.9	10.3 - 15.5	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.902	13.3	1.44	
4655	1,2-Dichloropropane	µg/L	5.22	5.71	3.43 - 7.99	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.66	5.80	0.350	
4765	Ethylbenzene	µg/L	16.6	16.4	13.1 - 19.7	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.0385	16.7	1.32	
4975	Methylene chloride (Dichloromethane)	µg/L	3.72	4.11	2.47 - 5.75	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.984	4.17	0.462	
5100	Styrene	µg/L	12.3	12.2	9.76 - 14.6	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.162	12.5	1.13	
5115	Tetrachloroethylene	µg/L	20.6	17.8	14.2 - 21.4	Acceptable	EPA 524.2 4.1 1995	8/1/2014	1.88	17.5	1.65	
5140	Toluene	µg/L	15.1	15.4	12.3 - 18.5	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.363	15.5	1.22	
5155	1,2,4-Trichlorobenzene	µg/L	10.2	9.86	5.92 - 13.8	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.810	9.45	0.927	
5160	1,1,1-Trichloroethane	µg/L	8.72	9.10	5.46 - 12.7	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.442	9.10	0.868	
5165	1,1,2-Trichloroethane	µg/L	8.91	9.38	5.63 - 13.1	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.841	9.43	0.614	
5170	Trichloroethylene	µg/L	4.00	4.20	2.52 - 5.88	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.284	4.10	0.364	
5235	Vinyl chloride	µg/L	4.61	5.00	3.00 - 7.00	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.10	5.53	0.842	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	35.8	33.2	26.6 - 39.8	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.535	34.3	2.87	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	4.59	4.65	2.79 - 6.51	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.399	4.74	0.370	
4455	Carbon tetrachloride	µg/L	11.7	11.8	9.44 - 14.2	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.0837	11.8	1.38	
4475	Chlorobenzene	µg/L	15.5	15.0	12.0 - 18.0	Acceptable	EPA 524.3 1 2009	8/11/2014	0.341	15.1	1.09	
4610	1,2-Dichlorobenzene	µg/L	10.4	9.53	5.72 - 13.3	Acceptable	EPA 524.3 1 2009	8/11/2014	1.58	9.50	0.573	
4620	1,4-Dichlorobenzene	µg/L	6.15	6.04	3.62 - 8.46	Acceptable	EPA 524.3 1 2009	8/11/2014	0.483	5.86	0.597	
4635	1,2-Dichloroethane	µg/L	8.00	7.50	4.50 - 10.5	Acceptable	EPA 524.3 1 2009	8/11/2014	0.685	7.62	0.561	
4640	1,1-Dichloroethylene	µg/L	5.01	4.77	2.86 - 6.68	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.362	5.25	0.654	
4645	cis-1,2-Dichloroethylene	µg/L	10.8	10.6	8.48 - 12.7	Acceptable	EPA 524.3 1 2009	8/11/2014	0.403	10.5	0.842	
4700	trans-1,2-Dichloroethylene	µg/L	13.3	12.9	10.3 - 15.5	Acceptable	EPA 524.3 1 2009	8/11/2014	0.000725	13.3	1.44	
4655	1,2-Dichloropropane	µg/L	6.07	5.71	3.43 - 7.99	Acceptable	EPA 524.3 1 2009	8/11/2014	0.771	5.80	0.350	
4765	Ethylbenzene	µg/L	17.1	16.4	13.1 - 19.7	Acceptable	EPA 524.3 1 2009	8/11/2014	0.340	16.7	1.32	
4975	Methylene chloride (Dichloromethane)	µg/L	4.12	4.11	2.47 - 5.75	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.118	4.17	0.462	
5100	Styrene	µg/L	13.0	12.2	9.76 - 14.6	Acceptable	EPA 524.3 1 2009	8/11/2014	0.457	12.5	1.13	
5115	Tetrachloroethylene	µg/L	18.2	17.8	14.2 - 21.4	Acceptable	EPA 524.3 1 2009	8/11/2014	0.431	17.5	1.65	
5140	Toluene	µg/L	15.2	15.4	12.3 - 18.5	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.281	15.5	1.22	
5155	1,2,4-Trichlorobenzene	µg/L	10.8	9.86	5.92 - 13.8	Acceptable	EPA 524.3 1 2009	8/11/2014	1.46	9.45	0.927	
5160	1,1,1-Trichloroethane	µg/L	9.03	9.10	5.46 - 12.7	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.0845	9.10	0.868	
5165	1,1,2-Trichloroethane	µg/L	9.78	9.38	5.63 - 13.1	Acceptable	EPA 524.3 1 2009	8/11/2014	0.577	9.43	0.614	
5170	Trichloroethylene	µg/L	4.12	4.20	2.52 - 5.88	Acceptable	EPA 524.3 1 2009	8/11/2014	0.0458	4.10	0.364	
5235	Vinyl chloride	µg/L	5.57	5.00	3.00 - 7.00	Acceptable	EPA 524.3 1 2009	8/11/2014	0.0424	5.53	0.842	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	34.8	33.2	26.6 - 39.8	Acceptable	EPA 524.3 1 2009	8/11/2014	0.186	34.3	2.87	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	12.1	11.2	8.96 - 13.4	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.881	11.2	1.04	
4390	Bromochloromethane	µg/L	9.78	10.5	8.40 - 12.6	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.03	10.7	0.876	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
5000	tert-Butyl methyl ether (MTBE)	µg/L	20.8	20.7	16.6 - 24.8	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.169	21.1	1.79	
4435	n-Butylbenzene	µg/L	9.38	9.25	5.55 - 13.0	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.300	9.11	0.885	
4440	sec-Butylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
4445	tert-Butylbenzene	µg/L	22.3	19.4	15.5 - 23.3	Acceptable	EPA 524.2 4.1 1995	8/1/2014	1.60	19.1	1.98	
4485	Chloroethane	µg/L	11.7	12.0	7.20 - 16.8	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.896	13.2	1.68	
4960	Chloromethane	µg/L	6.00	6.00	3.60 - 8.40	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.307	6.38	1.22	
4535	2-Chlorotoluene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
4540	4-Chlorotoluene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
4595	Dibromomethane	µg/L	3.58	3.62	2.17 - 5.07	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.191	3.63	0.263	
4615	1,3-Dichlorobenzene	µg/L	8.78	7.96	4.78 - 11.1	Acceptable	EPA 524.2 4.1 1995	8/1/2014	1.27	7.99	0.618	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
4630	1,1-Dichloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
4660	1,3-Dichloropropane	µg/L	5.36	5.53	3.32 - 7.74	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.223	5.47	0.507	
4665	2,2-Dichloropropane	µg/L	8.43	10.2	8.16 - 12.2	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-1.12	10.0	1.40	
4670	1,1-Dichloropropene	µg/L	4.77	4.71	2.83 - 6.59	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.124	4.72	0.406	
4680	cis-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
4685	trans-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
4835	Hexachlorobutadiene	µg/L	9.49	8.86	5.32 - 12.4	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.911	8.57	1.01	
4900	Isopropylbenzene	µg/L	10.6	9.33	5.60 - 13.1	Acceptable	EPA 524.2 4.1 1995	8/1/2014	1.07	9.42	1.10	
4910	4-Isopropyltoluene	µg/L	12.4	11.1	8.88 - 13.3	Acceptable	EPA 524.2 4.1 1995	8/1/2014	1.35	10.9	1.09	
5005	Naphthalene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
5090	n-Propylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				
5105	1,1,1,2-Tetrachloroethane	µg/L	11.0	11.7	9.36 - 14.0	Acceptable	EPA 524.2 4.1 1995	8/1/2014	-0.550	11.6	1.05	
5110	1,1,2,2-Tetrachloroethane	µg/L	6.02	5.78	3.47 - 8.09	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.118	5.95	0.573	
5150	1,2,3-Trichlorobenzene	µg/L	9.38	9.23	5.54 - 12.9	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.636	8.71	1.05	
5180	1,2,3-Trichloropropane (TCP)	µg/L	5.68	5.11	3.07 - 7.15	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.930	5.16	0.557	
5210	1,2,4-Trimethylbenzene	µg/L	11.3	10.2	8.16 - 12.2	Acceptable	EPA 524.2 4.1 1995	8/1/2014	1.06	10.3	0.936	
5215	1,3,5-Trimethylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/1/2014				

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	11.9	11.2	8.96 - 13.4	Acceptable	EPA 524.3 1 2009	8/11/2014	0.689	11.2	1.04	
4390	Bromochloromethane	µg/L	11.0	10.5	8.40 - 12.6	Acceptable	EPA 524.3 1 2009	8/11/2014	0.361	10.7	0.876	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	8/11/2014				
5000	tert-Butyl methyl ether (MTBE)	µg/L	23.6	20.7	16.6 - 24.8	Acceptable	EPA 524.3 1 2009	8/11/2014	1.40	21.1	1.79	
4435	n-Butylbenzene	µg/L	9.32	9.25	5.55 - 13.0	Acceptable	EPA 524.3 1 2009	8/11/2014	0.233	9.11	0.885	
4440	sec-Butylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				
4445	tert-Butylbenzene	µg/L	20.2	19.4	15.5 - 23.3	Acceptable	EPA 524.3 1 2009	8/11/2014	0.538	19.1	1.98	
4485	Chloroethane	µg/L	13.2	12.0	7.20 - 16.8	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.00135	13.2	1.68	
4960	Chloromethane	µg/L	7.07	6.00	3.60 - 8.40	Acceptable	EPA 524.3 1 2009	8/11/2014	0.567	6.38	1.22	
4535	2-Chlorotoluene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				
4540	4-Chlorotoluene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				
4595	Dibromomethane	µg/L	3.80	3.62	2.17 - 5.07	Acceptable	EPA 524.3 1 2009	8/11/2014	0.646	3.63	0.263	
4615	1,3-Dichlorobenzene	µg/L	8.14	7.96	4.78 - 11.1	Acceptable	EPA 524.3 1 2009	8/11/2014	0.238	7.99	0.618	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	8/11/2014				
4630	1,1-Dichloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				
4660	1,3-Dichloropropane	µg/L	5.65	5.53	3.32 - 7.74	Acceptable	EPA 524.3 1 2009	8/11/2014	0.349	5.47	0.507	
4665	2,2-Dichloropropane	µg/L	9.96	10.2	8.16 - 12.2	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.0289	10.0	1.40	
4670	1,1-Dichloropropene	µg/L	4.35	4.71	2.83 - 6.59	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.911	4.72	0.406	
4680	cis-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				
4685	trans-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	8/11/2014				
4835	Hexachlorobutadiene	µg/L	8.70	8.86	5.32 - 12.4	Acceptable	EPA 524.3 1 2009	8/11/2014	0.132	8.57	1.01	
4900	Isopropylbenzene	µg/L	9.07	9.33	5.60 - 13.1	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.322	9.42	1.10	
4910	4-Isopropyltoluene	µg/L	10.9	11.1	8.88 - 13.3	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.0216	10.9	1.09	
5005	Naphthalene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				
5090	n-Propylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				
5105	1,1,1,2-Tetrachloroethane	µg/L	11.0	11.7	9.36 - 14.0	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.550	11.6	1.05	
5110	1,1,2,2-Tetrachloroethane	µg/L	5.92	5.78	3.47 - 8.09	Acceptable	EPA 524.3 1 2009	8/11/2014	-0.0570	5.95	0.573	
5150	1,2,3-Trichlorobenzene	µg/L	9.60	9.23	5.54 - 12.9	Acceptable	EPA 524.3 1 2009	8/11/2014	0.845	8.71	1.05	
5180	1,2,3-Trichloropropane (TCP)	µg/L	5.62	5.11	3.07 - 7.15	Acceptable	EPA 524.3 1 2009	8/11/2014	0.822	5.16	0.557	
5210	1,2,4-Trimethylbenzene	µg/L	10.9	10.2	8.16 - 12.2	Acceptable	EPA 524.3 1 2009	8/11/2014	0.630	10.3	0.936	
5215	1,3,5-Trimethylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	8/11/2014				

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	12.4	12.7	6.98 - 18.4	Acceptable	EPA 505 2.1 1995	7/15/2014	-0.227	12.8	1.72	
7025	Aldrin	µg/L	2.11	1.94	0.874 - 2.47	Acceptable	EPA 505 2.1 1995	7/15/2014	1.07	1.62	0.460	
7065	Atrazine	µg/L		8.65	4.76 - 12.5	Not Reported				8.45	0.787	
7120	gamma-BHC (Lindane)	µg/L	2.06	2.29	1.26 - 3.32	Acceptable	EPA 505 2.1 1995	7/15/2014	-0.691	2.27	0.300	
7130	Bromacil	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7160	Butachlor	µg/L		3.42	1.88 - 4.96	Not Reported				3.79	0.632	
7410	Diazinon	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7470	Dieldrin	µg/L	1.64	1.79	0.984 - 2.60	Acceptable	EPA 505 2.1 1995	7/15/2014	-0.649	1.83	0.296	
7540	Endrin	µg/L	1.08	1.14	0.798 - 1.48	Acceptable	EPA 505 2.1 1995	7/15/2014	-0.635	1.22	0.217	
7685	Heptachlor	µg/L	2.61	2.40	1.32 - 3.48	Acceptable	EPA 505 2.1 1995	7/15/2014	1.14	2.27	0.295	
7690	Heptachlor epoxide (beta)	µg/L	1.42	1.47	0.808 - 2.13	Acceptable	EPA 505 2.1 1995	7/15/2014	-0.270	1.49	0.245	
6275	Hexachlorobenzene	µg/L		1.65	0.813 - 2.08	Not Reported				1.58	0.265	
6285	Hexachlorocyclopentadiene	µg/L		5.22	1.48 - 7.58	Not Reported				5.25	1.39	
7810	Methoxychlor	µg/L	3.82	4.20	2.31 - 6.09	Acceptable	EPA 505 2.1 1995	7/15/2014	-0.342	4.06	0.701	
7835	Metolachlor	µg/L		4.72	2.60 - 6.84	Not Reported				5.06	0.992	
7845	Metribuzin	µg/L		8.53	4.26 - 12.8	Not Reported				8.41	1.87	
7875	Molinate (Ordram)	µg/L		5.94	3.43 - 8.18	Not Reported				6.68	0.800	
8035	Prometon	µg/L		7.83	2.39 - 10.9	Not Reported				7.48	0.786	
8045	Propachlor	µg/L		2.16	1.19 - 3.13	Not Reported				2.26	0.342	
8125	Simazine	µg/L		4.60	2.53 - 6.67	Not Reported				4.85	1.31	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L		< 2.00	0.00 - 2.00	Not Reported						
8295	Trifluralin	µg/L		4.73	2.60 - 6.86	Not Reported				4.22	0.951	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	12.7	12.7	6.98 - 18.4	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.0527	12.8	1.72	
7025	Aldrin	µg/L	1.58	1.94	0.874 - 2.47	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.0783	1.62	0.460	
7065	Atrazine	µg/L	8.45	8.65	4.76 - 12.5	Acceptable	EPA 525.2 2 1995	8/18/2014	0.00151	8.45	0.787	
7120	gamma-BHC (Lindane)	µg/L	2.38	2.29	1.26 - 3.32	Acceptable	EPA 525.2 2 1995	8/18/2014	0.378	2.27	0.300	
7130	Bromacil	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	8/18/2014				
7160	Butachlor	µg/L	4.17	3.42	1.88 - 4.96	Acceptable	EPA 525.2 2 1995	8/18/2014	0.599	3.79	0.632	
7410	Diazinon	µg/L	< 0.10	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	8/18/2014				
7470	Dieldrin	µg/L	1.98	1.79	0.984 - 2.60	Acceptable	EPA 525.2 2 1995	8/18/2014	0.500	1.83	0.296	
7540	Endrin	µg/L	1.17	1.14	0.798 - 1.48	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.219	1.22	0.217	
7685	Heptachlor	µg/L	2.40	2.40	1.32 - 3.48	Acceptable	EPA 525.2 2 1995	8/18/2014	0.426	2.27	0.295	
7690	Heptachlor epoxide (beta)	µg/L	1.51	1.47	0.808 - 2.13	Acceptable	EPA 525.2 2 1995	8/18/2014	0.0965	1.49	0.245	
6275	Hexachlorobenzene	µg/L	1.56	1.65	0.813 - 2.08	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.0620	1.58	0.265	
6285	Hexachlorocyclopentadiene	µg/L	5.72	5.22	1.48 - 7.58	Acceptable	EPA 525.2 2 1995	8/18/2014	0.336	5.25	1.39	
7810	Methoxychlor	µg/L	4.32	4.20	2.31 - 6.09	Acceptable	EPA 525.2 2 1995	8/18/2014	0.371	4.06	0.701	
7835	Metolachlor	µg/L	5.08	4.72	2.60 - 6.84	Acceptable	EPA 525.2 2 1995	8/18/2014	0.0202	5.06	0.992	
7845	Metribuzin	µg/L	10.1	8.53	4.26 - 12.8	Acceptable	EPA 525.2 2 1995	8/18/2014	0.906	8.41	1.87	
7875	Molinate (Ordram)	µg/L	5.93	5.94	3.43 - 8.18	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.936	6.68	0.800	
8035	Prometon	µg/L		7.83	2.39 - 10.9	Not Reported				7.48	0.786	
8045	Propachlor	µg/L	2.22	2.16	1.19 - 3.13	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.122	2.26	0.342	
8125	Simazine	µg/L	4.99	4.60	2.53 - 6.67	Acceptable	EPA 525.2 2 1995	8/18/2014	0.110	4.85	1.31	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	8/18/2014				
8295	Trifluralin	µg/L	4.81	4.73	2.60 - 6.86	Acceptable	EPA 525.2 2 1995	8/18/2014	0.624	4.22	0.951	
WS Carbamate/Carbamoxyloxime Pesticides (cat# 846)												
7010	Aldicarb	µg/L	19.3	21.5	16.1 - 26.9	Acceptable	EPA 531.2 1 2001	7/16/2014	-1.31	22.3	2.29	
7015	Aldicarb sulfone	µg/L	23.6	27.6	20.7 - 34.5	Acceptable	EPA 531.2 1 2001	7/16/2014	-1.09	26.2	2.35	
7020	Aldicarb sulfoxide	µg/L	18.6	21.7	16.3 - 27.1	Acceptable	EPA 531.2 1 2001	7/16/2014	-1.03	20.6	1.99	
8080	Baygon	µg/L	60.0	58.0	47.2 - 68.8	Acceptable	EPA 531.2 1 2001	7/16/2014	0.489	58.0	4.11	
7195	Carbaryl	µg/L	24.7	25.1	18.8 - 31.4	Acceptable	EPA 531.2 1 2001	7/16/2014	0.444	23.9	1.85	
7205	Carbofuran	µg/L	24.2	25.7	14.1 - 37.3	Acceptable	EPA 531.2 1 2001	7/16/2014	-1.08	26.4	2.06	
7710	3-Hydroxycarbofuran	µg/L	20.4	22.1	17.7 - 26.5	Acceptable	EPA 531.2 1 2001	7/16/2014	-0.972	22.0	1.68	
7800	Methiocarb	µg/L	38.2	35.2	27.5 - 42.0	Acceptable	EPA 531.2 1 2001	7/16/2014	1.32	34.3	2.94	
7805	Methomyl	µg/L	49.0	48.8	39.0 - 58.6	Acceptable	EPA 531.2 1 2001	7/16/2014	-0.200	49.6	3.04	
7940	Oxamyl (vydate)	µg/L	26.4	28.4	21.3 - 35.5	Acceptable	EPA 531.2 1 2001	7/16/2014	-0.785	28.2	2.26	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	6.78	6.80	3.74 - 9.86	Acceptable	EPA 505 2.1 1995	7/15/2014	0.103	6.66	1.13	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	7.83	6.80	3.74 - 9.86	Acceptable	EPA 525.2 2 1995	8/18/2014	1.03	6.66	1.13	
WS Toxaphene (cat# 844)												
8250	Toxaphene	µg/L	6.84	6.73	3.70 - 9.76	Acceptable	EPA 505 2.1 1995	7/18/2014	0.304	6.34	1.65	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	1.09	1.01	0.606 - 1.41	Acceptable	EPA 504.1 1.1 1995	7/22/2014	0.427	1.03	0.147	
4585	Ethylene Dibromide (EDB)	µg/L	0.744	0.751	0.451 - 1.05	Acceptable	EPA 504.1 1.1 1995	7/22/2014	0.125	0.731	0.105	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.93	1.73	1.04 - 2.42	Acceptable	EPA 504.1 1.1 1995	7/22/2014	1.46	1.67	0.177	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	1.06	1.01	0.606 - 1.41	Acceptable	EPA 551.1 1 1992	7/23/2014	0.223	1.03	0.147	
4585	Ethylene Dibromide (EDB)	µg/L	0.711	0.751	0.451 - 1.05	Acceptable	EPA 551.1 1 1992	7/23/2014	-0.190	0.731	0.105	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.73	1.04 - 2.42	Not Reported				1.67	0.177	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	1.16	1.01	0.606 - 1.41	Acceptable	EPA 8011 1994	7/22/2014	0.904	1.03	0.147	
4585	Ethylene Dibromide (EDB)	µg/L	0.828	0.751	0.451 - 1.05	Acceptable	EPA 8011 1994	7/22/2014	0.928	0.731	0.105	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.73	1.04 - 2.42	Not Reported				1.67	0.177	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L		1.01	0.606 - 1.41	Not Reported				1.03	0.147	
4585	Ethylene Dibromide (EDB)	µg/L		0.751	0.451 - 1.05	Not Reported				0.731	0.105	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.83	1.73	1.04 - 2.42	Acceptable	EPA 524.2 4.1 1995	8/1/2014	0.894	1.67	0.177	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	68.6	75.4	43.4 - 89.9	Acceptable	EPA 1613B Appendix A 1997	7/22/2014	0.0367	68.3	9.18	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	68.6	75.4	43.4 - 89.9	Acceptable	EPA 1613 1994	7/22/2014	0.0367	68.3	9.18	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS PCBs as Decachlorobiphenyl (cat# 839)												
8880	Aroclor 1016	µg/L	< 0.08	< 0.260	0.00 - 0.260	Acceptable	EPA 505 2.1 1995	7/18/2014				
8885	Aroclor 1221	µg/L	< 0.10	< 0.190	0.00 - 0.190	Acceptable	EPA 505 2.1 1995	7/18/2014				
8890	Aroclor 1232	µg/L	< 0.10	< 0.230	0.00 - 0.230	Acceptable	EPA 505 2.1 1995	7/18/2014				
8895	Aroclor 1242	µg/L	< 0.10	< 0.260	0.00 - 0.260	Acceptable	EPA 505 2.1 1995	7/18/2014				
8900	Aroclor 1248	µg/L	3.42	2.81	1.61 - 3.45	Acceptable	EPA 505 2.1 1995	7/18/2014	0.788	3.12	0.385	
8905	Aroclor 1254	µg/L	< 0.10	< 0.330	0.00 - 0.330	Acceptable	EPA 505 2.1 1995	7/18/2014				
8910	Aroclor 1260	µg/L	< 0.10	< 0.360	0.00 - 0.360	Acceptable	EPA 505 2.1 1995	7/18/2014				
8872	PCB Aroclor Identity	Identity	1248	1248		Acceptable	EPA 505 2.1 1995	7/18/2014	0			
9105	PCB as Decachlorobiphenyl	µg/L		4.69	0.469 - 9.38	Not Reported				5.21	0.795	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848)												
5500	Acenaphthene	µg/L	3.09	3.29	1.64 - 4.13	Acceptable	EPA 525.2 2 1995	8/18/2014	0.0677	3.04	0.690	
5505	Acenaphthylene	µg/L	3.72	3.96	1.87 - 5.32	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.330	4.07	1.06	
5555	Anthracene	µg/L	1.79	1.85	0.803 - 2.40	Acceptable	EPA 525.2 2 1995	8/18/2014	0.0897	1.73	0.651	
5575	Benzo(a)anthracene	µg/L	5.73	6.26	3.45 - 7.93	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.0474	5.81	1.60	
5585	Benzo(b)fluoranthene	µg/L	2.49	2.50	1.33 - 3.44	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.681	2.81	0.476	
5600	Benzo(k)fluoranthene	µg/L	9.97	9.35	5.07 - 12.7	Acceptable	EPA 525.2 2 1995	8/18/2014	0.363	9.53	1.21	
5590	Benzo(g,h,i)perylene	µg/L	2.28	1.89	0.854 - 2.70	Acceptable	EPA 525.2 2 1995	8/18/2014	1.23	2.03	0.206	
5580	Benzo(a)pyrene	µg/L	1.09	1.21	0.463 - 1.58	Acceptable	EPA 525.2 2 1995	8/18/2014	0.234	1.01	0.336	
5670	Butylbenzylphthalate	µg/L	38.8	31.0	16.9 - 45.0	Acceptable	EPA 525.2 2 1995	8/18/2014	0.734	34.2	6.27	
5855	Chrysene	µg/L	6.99	6.81	3.90 - 8.74	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.113	7.20	1.88	
5895	Dibenz(a,h)anthracene	µg/L	6.35	5.77	2.68 - 8.29	Acceptable	EPA 525.2 2 1995	8/18/2014	0.409	6.11	0.586	
6070	Diethylphthalate	µg/L	44.8	40.4	21.7 - 57.1	Acceptable	EPA 525.2 2 1995	8/18/2014	0.635	40.6	6.60	
6135	Dimethylphthalate	µg/L	23.5	20.4	9.77 - 28.0	Acceptable	EPA 525.2 2 1995	8/18/2014	0.951	20.5	3.13	
5925	Di-n-butylphthalate	µg/L	24.4	20.8	11.4 - 29.9	Acceptable	EPA 525.2 2 1995	8/18/2014	0.244	23.4	4.28	
6200	Di-n-octylphthalate	µg/L	14.2	13.7	6.80 - 19.1	Acceptable	EPA 525.2 2 1995	8/18/2014	0.399	13.4	1.88	
6062	bis(2-Ethylhexyl)adipate	µg/L	40.3	39.0	25.2 - 50.5	Acceptable	EPA 525.2 2 1995	8/18/2014	0.256	37.2	11.9	
6065	bis(2-Ethylhexyl)phthalate	µg/L	21.5	19.4	9.77 - 28.6	Acceptable	EPA 525.2 2 1995	8/18/2014	0.342	19.9	4.63	
6265	Fluoranthene	µg/L	8.43	8.10	3.90 - 10.9	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.232	8.62	0.803	
6270	Fluorene	µg/L	3.05	3.29	1.92 - 4.21	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.554	3.49	0.797	
6315	Indeno(1,2,3-cd)pyrene	µg/L	4.00	3.12	1.36 - 4.46	Acceptable	EPA 525.2 2 1995	8/18/2014	1.21	3.34	0.547	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848) (Continued)												
5005	Naphthalene	µg/L	5.92	5.28	2.14 - 6.74	Acceptable	EPA 525.2 2 1995	8/18/2014	0.292	5.57	1.21	
6615	Phenanthrene	µg/L	3.04	3.28	2.09 - 4.13	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.439	3.34	0.681	
6665	Pyrene	µg/L	3.89	4.04	2.41 - 5.22	Acceptable	EPA 525.2 2 1995	8/18/2014	-0.185	4.07	0.961	
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L	60.9	61.5	30.8 - 92.2	Acceptable	EPA 515.4 1 2000	7/29/2014	0.392	57.5	8.70	
8530	Bentazon	µg/L	64.2	67.1	34.8 - 91.3	Acceptable	EPA 515.4 1 2000	7/29/2014	-0.215	67.5	15.3	
8540	Chloramben	µg/L		81.1	21.7 - 110	Not Reported				60.2	28.9	
8545	2,4-D	µg/L	94.6	92.0	46.0 - 138	Acceptable	EPA 515.4 1 2000	7/29/2014	0.726	82.3	16.9	
8550	Dacthal diacid (DCPA)	µg/L	91.6	84.5	31.4 - 137	Acceptable	EPA 515.4 1 2000	7/29/2014	0.0984	89.8	17.9	
8555	Dalapon	µg/L	48.1	47.8	23.9 - 71.7	Acceptable	EPA 515.4 1 2000	7/29/2014	0.136	46.3	13.6	
8560	2,4-DB	µg/L	63.6	48.4	24.2 - 72.6	Acceptable	EPA 515.4 1 2000	7/29/2014	1.05	49.2	13.7	
8595	Dicamba	µg/L	22.1	22.1	11.0 - 33.2	Acceptable	EPA 515.4 1 2000	7/29/2014	0.698	19.9	3.14	
8600	3,5-Dichlorobenzoic acid	µg/L	90.2	95.6	45.6 - 127	Acceptable	EPA 515.4 1 2000	7/29/2014	-0.158	92.4	13.7	
8605	Dichlorprop	µg/L	45.5	39.0	17.9 - 53.8	Acceptable	EPA 515.4 1 2000	7/29/2014	1.17	38.3	6.16	
8620	Dinoseb	µg/L	52.2	49.2	16.7 - 68.4	Acceptable	EPA 515.4 1 2000	7/29/2014	0.748	46.7	7.39	
6500	4-Nitrophenol	µg/L		69.6	6.96 - 94.0	Not Reported				0.00	0.00	
6605	Pentachlorophenol	µg/L	16.4	15.2	7.60 - 22.8	Acceptable	EPA 515.4 1 2000	7/29/2014	0.640	14.6	2.76	
8645	Picloram	µg/L	65.0	68.7	34.4 - 103	Acceptable	EPA 515.4 1 2000	7/29/2014	0.339	61.5	10.3	
8655	2,4,5-T	µg/L	19.5	18.5	9.25 - 27.8	Acceptable	EPA 515.4 1 2000	7/29/2014	0.781	17.8	2.13	
8650	2,4,5-TP (Silvex)	µg/L	37.6	40.3	20.2 - 60.4	Acceptable	EPA 515.4 1 2000	7/29/2014	0.243	36.1	6.18	

WS-216 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/14
Study Dates: 07/07/14 - 08/21/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L		61.5	30.8 - 92.2	Not Reported				57.5	8.70	
8530	Bentazon	µg/L		67.1	34.8 - 91.3	Not Reported				67.5	15.3	
8540	Chloramben	µg/L		81.1	21.7 - 110	Not Reported				60.2	28.9	
8545	2,4-D	µg/L		92.0	46.0 - 138	Not Reported				82.3	16.9	
8550	Dacthal diacid (DCPA)	µg/L		84.5	31.4 - 137	Not Reported				89.8	17.9	
8555	Dalapon	µg/L		47.8	23.9 - 71.7	Not Reported				46.3	13.6	
8560	2,4-DB	µg/L		48.4	24.2 - 72.6	Not Reported				49.2	13.7	
8595	Dicamba	µg/L		22.1	11.0 - 33.2	Not Reported				19.9	3.14	
8600	3,5-Dichlorobenzoic acid	µg/L		95.6	45.6 - 127	Not Reported				92.4	13.7	
8605	Dichlorprop	µg/L		39.0	17.9 - 53.8	Not Reported				38.3	6.16	
8620	Dinoseb	µg/L		49.2	16.7 - 68.4	Not Reported				46.7	7.39	
6500	4-Nitrophenol	µg/L		69.6	6.96 - 94.0	Not Reported				0.00	0.00	
6605	Pentachlorophenol	µg/L	18.0	15.2	7.60 - 22.8	Acceptable	EPA 525.2 2 1995	8/18/2014	1.22	14.6	2.76	
8645	Picloram	µg/L		68.7	34.4 - 103	Not Reported				61.5	10.3	
8655	2,4,5-T	µg/L		18.5	9.25 - 27.8	Not Reported				17.8	2.13	
8650	2,4,5-TP (Silvex)	µg/L		40.3	20.2 - 60.4	Not Reported				36.1	6.18	
WS Regulated Semivolatiles #2 Herbicides (cat# 849)												
9390	Diquat	µg/L	23.5	38.8	19.4 - 58.2	Acceptable	EPA 549.2 1 1997	7/22/2014	-0.927	28.8	5.73	
7525	Endothall	µg/L	370	411	206 - 616	Acceptable	EPA 548.1 1 1992	7/22/2014	0.302	358	39.4	
9411	Glyphosate	µg/L	420	383	306 - 460	Acceptable	EPA 547 1990	7/21/2014	0.439	397	53.0	
9528	Paraquat	µg/L	10.7	16.5	7.24 - 20.7	Acceptable	EPA 549.2 1 1997	7/22/2014	-0.691	12.6	2.68	

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

090514F1 Final Report

QuiK™ Response Proficiency Testing

Project # :090514F1

090514F1 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Mercury (cat# 666) Study Dates: 09/05/14 - 10/09/14												
1095	Mercury	µg/L	3.50	3.30	2.31 - 4.29	Acceptable	EPA 245.1 3 1994	10/7/2014	0.470	3.32	0.378	

eurofins | Eaton Analytical

October 13, 2014

Gary K. Ward
ORELAP Administrator
Environmental Laboratory Accreditation Program
Oregon State Public Health Laboratory
3150 NW 229th Avenue, Suite 100
Hillsboro, OR 97124

RE: Eurofins Eaton Analytical - ORELAP Certificate No. 4034
Eurofins Eaton-Monrovia: CA-ELAP Certificate No. 2813
EPA ID: CA00006
ERA WS-216 & WP-234, July Study Corrective Action Report

Dear Mr. Ward:

Please find attached EEAI's corrective action reports for methods and analytes that failed ERA's WS-216 and WP-234, July 2014 Full PT study.

The lab participated in ERA's 'Quik' response PT #090514F1 and #090514F2 as makeup PT for WS Not Acceptable results and #090514F3 as makeup PT for WP Not Acceptable results.

Corrective actions are being implemented to eliminate the problems. Internal QC check samples were provided to the analysts to determine if corrective actions implemented are effective in eliminating the problems.

If you have any questions, please call me at 626-386-1117 or our QA Officer, Nilda Cox, at 626-386-1170. Our email addresses are NildaCox@eurofinsus.com and AlmaCapati@eurofinsus.com.

Thank you.

Sincerely,

alcapati

Alma Capati
QA Assistant

Corrective Action Report
For Not Acceptable Value Reported

PT Study: ERA WS-216 July 2014 PT Study

Corrective Action Report No.: 1

eurofins | Eaton Analytical

Sample Information

Department:	Metals	
Method(s):	EPA 245.1	
Analyte(s):	Mercury	
Sample ID:	WS Mercury	
Sample No.:	201407110139	
Group No.:	489241	
Date Analyzed:	7/24/2014	
Analyst:	Michael Hu	
Reported Value:	2.04	ug/L
True Value:	4.45	ug/L
% Recovery:	46%	
Acceptance Limits:		3.12-5.78 ug/L (70-130%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	107%
LCS2	100%
RPD_LCS	7%
MS	95%
MSD	95%
RPD_MS	0%

Problem Identification (Root Cause Analysis)

____ Dilution Error	____ Instrument Problems	
____ QC Limits not met	____ Standards Problems	
____ SOP not followed	X Other	
____ Calculation Error	*Multiple dilutions were prepared and digested due to wide PT range. Dilutions were mixed up for analysis and incorrect dilution factor was applied.*	
____ Lab Contamination		
____ Log in Error		
____ Training		
____ Reporting Error		

Internal QC Check

Result =	2.56	ug/L
Spike Value =	2.43	ug/L
% Recovery =	105%	
Acceptance Limits	1.85-2.99	ug/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Until analyst shows a greater attention to detail, multiple dilutions will not be prepared for PT samples based on expected concentration. This will prevent the accidental usage of incorrect dilutions for sample analysis, and more closely mimic real samples, in which expected concentrations are not known. Because of this change, and the possiblilty of PT reruns, the analyst will need to run the PT sample as soon as it arrives in the event another dilution and digestion is needed.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 090514F1 as make up study. Result of the make up PT was acceptable.

Analyst :	Michael Hu	Date: 10/10/14
Technical Manager:	Lisa M. Romero for Walter Hsieh Walter Hsieh	Date: 10 Oct 14
Quality Manager:	Nilda Cox Nilda Cox	Date: 10/10/2014
Laboratory Director:	Fred Haley	Date: 10/10/2014

Corrective Action Report

For Not Acceptable Value Reported

PT Study: **ERA WS-216 July 2014 PT Study**

Corrective Action Report No.: 2

eurofins | Eaton Analytical

Sample Information

Department:	Microbiology	
Method(s):	SM 9223 Colilert-18 hour	
Analyte(s):	Total Coliform & E. coli	
Sample ID:	WS Source Water Microbe	
Sample No.:	201407110239	
Group No.:	489241	
Date Analyzed:	7/16/2014	
Analyst:	Polly Barrowman	
Reported Value:	49.0 / 49.0	MPN/100 ml
True Value:	158 / 158	MPN/100 ml
% Recovery:	31%	
Acceptance Limits:		Total: 58.2-198 (37-125 %) Ecoli: 59.3-194 (38-123%)
Performance Evaluation:		Not Acceptable

Internal QC Check

ERA 9/18/14

Result =	33.0/33.0	MPN/100 ml
Spike Value =	47.9/47.1	MPN/100 ml
% Recovery =	69 / 70	
Acceptance Limits: Total	28.0-82.0	MPN/100 ml
Acceptance Limits: E coli	25.9-85.5	MPN/100 ml
Evaluation =	Acceptable	

Problem Identification (Root Cause Analysis)

	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*Reported 49 when the result should be reported as >23*
	Lab Contamination		
	Log in Error		
	Training		
X	Reporting Error		

Internal QC Check

NSI 9/11/14

Result =	240	MPN/100 ml
Spike Value =	148/139	MPN/100 ml
% Recovery =	173%	
Acceptance Limits: Total Coliform	89-248	MPN/100 ml
Acceptance Limits: E coli	69-281	MPN/100 ml
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Current WS Source PT requires an enumeration test that will give overrange values for a WS study for the Coli-10 method for which EEA typically performs this test. EEA performs Coli-10 (10 tube) with an MPN maximum value of >23 MPN/100 mL. The WS Source Water study will typically always be over this maximum as Coli-10 method is designed for a drinking water source matrix. In the events the WS Source Water results are >23, the sample test results for Colilert 18 Quantitray will be reported as Idexx/Colilert.

Follow-up Schedule / Track Progress:

Internal QC Checks/QC Standards (NSI and ERA) were provided to the analyst to determine if the problem is resolved. Results of the QC standards were acceptable. The lab participated in ERA's 'Quik' response PT 090514F2 as make up study. Result of the make up PT was Not Acceptable because result was reported as a number and not >23. Another set of PT will be ordered and the corrective action on reporting will be implemented.

Analyst : Polly Barrowman Date: 10/10/14

Technical Manager: Polly Barrowman Date: 10/10/14

Quality Manager: Nilda Cox Date: 10/10/2014

Nilda Cox

Laboratory Director: M Haley Date: 10/10/2014

Fred Haley

Corrective Action Report

For Not Acceptable Value Reported

PT Study: **ERA WS-216 July 2014 PT Study**

Corrective Action Report No.: 2a

eurofins | Eaton Analytical

Sample Information

Department:	Microbiology	
Method(s):	SM 9223 Colilert-18 hour	
Analyte(s):	Total Coliform & E. coli	
Sample ID:	WS Source Water Microbe	
Sample No.:	201409090499	
Group No.:	497999	
Date Analyzed:	9/18/2014	
Analyst:	Polly Barrowman	
Reported Value:	33.0 /33.0	MPN/100 ml
True Value:	111 / 111	MPN/100 ml
% Recovery:	30 % / 30%	
Acceptance Limits:		Total: 44.7-122 (40-110 %) Ecoli: 46.1-121 (42-109%)
Performance Evaluation:		Not Acceptable

Internal QC Check

ERA

Result =		MPN/100 ml
Spike Value	47.9 / 47.1	MPN/100 ml
% Recovery =		
Acceptance Limits: Total Coliform	28.0-82.0	MPN/100 ml
Acceptance Limits: E coli	25.9-85.5	MPN/100 ml

Evaluation =

Problem Identification (Root Cause Analysis)

	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*Reported 33 when the result should be reported as >23*
	Lab Contamination		
	Log in Error		
	Training		
X	Reporting Error		

Internal QC Check

NSI 10/8/14

Result =	49.0 / 49.0	MPN/100 ml
Spike Value	148 /139	MPN/100 ml
% Recovery	33 / 35	
Acceptance Limits: Total Coliform	89-248	MPN/100 ml
Acceptance Limits: E coli	69-281	MPN/100 ml

Evaluation = Not Acceptable

Corrective Action Taken To Prevent Reoccurrence of Problem:

Current WS Source PT requires an enumeration test that will give overrange values for a WS study for the Coli-10 method for which EEA typically performs this test. EEA performs Coli-10 (10 tube) with an MPN maximum value of >23 MPN/100 mL. The WS Source Water study will typically always be over this maximum as Coli-10 method is designed for a drinking water source matrix. In the events the WS Source Water results are >23, the sample test results for Colilert 18 Quantitray will be reported as Idexx/Colilert.

Follow-up Schedule / Track Progress:

Internal QC Checks/QC Standards (NSI & ERA) were provided to the analyst to determine if the problem is resolved. Result of the make up PT was Not Acceptable because result was reported as a number and not >23. Two sets of makeup PTs will be ordered and the corrective action on reporting will be implemented.

Analyst :	Polly Barrowman	Date: 10/10/14
Technical Manager:	Polly Barrowman	Date: 10/10/14
Quality Manager:	Nilda Cox	Date: 10/10/14
Laboratory Director:	Fred Haley	Date: 10/10/14

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016

WP-228 *Final Report*

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 01/13/14

Close Date: 02/27/14

Report Issued Date: 03/03/14

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-228**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	80.4	81.1	68.9 - 93.3	Acceptable	SM 2320 B-1997 1997	1/28/2014	-0.472	81.8	2.89	
1575	Chloride	mg/L	46.4	46.5	40.2 - 52.9	Acceptable	EPA 300.0 2.1 1993	1/29/2014	0.138	46.1	1.98	
1610	Conductivity at 25°C	µmhos/cm	370	357	321 - 393	Acceptable	SM 2510 B-1997 1997	1/28/2014	-0.0862	371	12.0	
1730	Fluoride	mg/L	1.96	2.02	1.61 - 2.36	Acceptable	SM 4500-F C-1997 1997	1/28/2014	0.155	1.94	0.113	
1125	Potassium	mg/L	21.6	23.2	18.6 - 27.8	Acceptable	EPA 200.7 4.4 1994	1/29/2014	-0.911	22.7	1.22	
1155	Sodium	mg/L	66.5	66.4	53.1 - 79.7	Acceptable	EPA 200.7 4.4 1994	1/29/2014	-0.110	66.9	3.69	
2000	Sulfate	mg/L	22.0	23.4	18.6 - 27.2	Acceptable	EPA 300.0 2.1 1993	1/29/2014	-0.251	22.3	1.34	
1955	Total Dissolved Solids at 180°C	mg/L	288	314	269 - 359	Acceptable	SM 2540 C-1997 1997	1/30/2014	-0.144	291	18.1	
1950	Total Solids at 105°C	mg/L	302	313	268 - 358	Acceptable	SM 2540 B-1997 1997	2/3/2014	-0.133	304	17.6	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	80.4	81.1	68.9 - 93.3	Acceptable	SM 2320 B-2011 2011	1/28/2014	-0.472	81.8	2.89	
1575	Chloride	mg/L	46.4	46.5	40.2 - 52.9	Acceptable	EPA 9056 1994	1/29/2014	0.138	46.1	1.98	
1610	Conductivity at 25°C	µmhos/cm	370	357	321 - 393	Acceptable	SM 2510 B-2011 2011	1/28/2014	-0.0862	371	12.0	
1730	Fluoride	mg/L	1.96	2.02	1.61 - 2.36	Acceptable	SM 4500-F C-2011 2011	1/28/2014	0.155	1.94	0.113	
1125	Potassium	mg/L	21.6	23.2	18.6 - 27.8	Acceptable	EPA 6010B 2 1996	1/29/2014	-0.911	22.7	1.22	
1155	Sodium	mg/L	66.5	66.4	53.1 - 79.7	Acceptable	EPA 6010B 2 1996	1/29/2014	-0.110	66.9	3.69	
2000	Sulfate	mg/L	22.0	23.4	18.6 - 27.2	Acceptable	EPA 9056 1994	1/29/2014	-0.251	22.3	1.34	
1955	Total Dissolved Solids at 180°C	mg/L	288	314	269 - 359	Acceptable	SM 2540 C-2011 2011	1/30/2014	-0.144	291	18.1	
1950	Total Solids at 105°C	mg/L	302	313	268 - 358	Acceptable	SM 2540 B-2011 2011	2/3/2014	-0.133	304	17.6	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	80.4	81.1	68.9 - 93.3	Acceptable	SM2320B 22nd ED 2011	1/28/2014	-0.472	81.8	2.89	
1575	Chloride	mg/L		46.5	40.2 - 52.9	Not Reported				46.1	1.98	
1610	Conductivity at 25°C	µmhos/cm	370	357	321 - 393	Acceptable	EPA 120.1 1982	1/28/2014	-0.0862	371	12.0	
1730	Fluoride	mg/L	1.89	2.02	1.61 - 2.36	Acceptable	EPA 300.0 2.1 1993	2/18/2014	-0.463	1.94	0.113	
1125	Potassium	mg/L		23.2	18.6 - 27.8	Not Reported				22.7	1.22	
1155	Sodium	mg/L		66.4	53.1 - 79.7	Not Reported				66.9	3.69	
2000	Sulfate	mg/L		23.4	18.6 - 27.2	Not Reported				22.3	1.34	
1955	Total Dissolved Solids at 180°C	mg/L	288	314	269 - 359	Acceptable	SM2540C 22nd ED 2011	1/30/2014	-0.144	291	18.1	
1950	Total Solids at 105°C	mg/L	302	313	268 - 358	Acceptable	SM2540B 22nd ED 2011	2/3/2014	-0.133	304	17.6	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		81.1	68.9 - 93.3	Not Reported				81.8	2.89	
1575	Chloride	mg/L		46.5	40.2 - 52.9	Not Reported				46.1	1.98	
1610	Conductivity at 25°C	µmhos/cm	370	357	321 - 393	Acceptable	SM2510B 22nd ED 2011	1/28/2014	-0.0862	371	12.0	
1730	Fluoride	mg/L	1.89	2.02	1.61 - 2.36	Acceptable	EPA 9056 1994	2/18/2014	-0.463	1.94	0.113	
1125	Potassium	mg/L		23.2	18.6 - 27.8	Not Reported				22.7	1.22	
1155	Sodium	mg/L		66.4	53.1 - 79.7	Not Reported				66.9	3.69	
2000	Sulfate	mg/L		23.4	18.6 - 27.2	Not Reported				22.3	1.34	
1955	Total Dissolved Solids at 180°C	mg/L	288	314	269 - 359	Acceptable	SM2540C 20th ED 1997	1/30/2014	-0.144	291	18.1	
1950	Total Solids at 105°C	mg/L	302	313	268 - 358	Acceptable	SM2540B 20th ED 1997	2/3/2014	-0.133	304	17.6	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		81.1	68.9 - 93.3	Not Reported				81.8	2.89	
1575	Chloride	mg/L		46.5	40.2 - 52.9	Not Reported				46.1	1.98	
1610	Conductivity at 25°C	µmhos/cm	370	357	321 - 393	Acceptable	EPA 9050A 1 1996	1/28/2014	-0.0862	371	12.0	
1730	Fluoride	mg/L	1.96	2.02	1.61 - 2.36	Acceptable	SM4500F- C 22nd ED 2011	1/28/2014	0.155	1.94	0.113	
1125	Potassium	mg/L		23.2	18.6 - 27.8	Not Reported				22.7	1.22	
1155	Sodium	mg/L		66.4	53.1 - 79.7	Not Reported				66.9	3.69	
2000	Sulfate	mg/L		23.4	18.6 - 27.2	Not Reported				22.3	1.34	
1955	Total Dissolved Solids at 180°C	mg/L		314	269 - 359	Not Reported				291	18.1	
1950	Total Solids at 105°C	mg/L		313	268 - 358	Not Reported				304	17.6	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	35.0	39.1	29.1 - 45.7	Acceptable	SM 2540 D-1997 1997	1/22/2014	-0.241	35.6	2.56	
1035	Calcium	mg/L	92.4	94.6	80.4 - 109	Acceptable	EPA 200.7 4.4 1994	1/22/2014	-0.264	93.3	3.45	
1085	Magnesium	mg/L	26.2	26.5	22.5 - 30.5	Acceptable	EPA 200.7 4.4 1994	1/22/2014	0.125	26.1	1.19	
1550	Calcium Hardness as CaCO3	mg/L	231	236	201 - 271	Acceptable	EPA 200.7 4.4 1994	1/23/2014	-0.202	233	8.89	
1755	Total Hardness as CaCO3	mg/L	339	345	293 - 397	Acceptable	EPA 200.7 4.4 1994	1/23/2014	0.119	338	11.3	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	35.0	39.1	29.1 - 45.7	Acceptable	SM 2540 D-2011 2011	1/22/2014	-0.241	35.6	2.56	
1035	Calcium	mg/L	92.4	94.6	80.4 - 109	Acceptable	EPA 6010B 2 1996	1/22/2014	-0.264	93.3	3.45	
1085	Magnesium	mg/L	26.2	26.5	22.5 - 30.5	Acceptable	EPA 6010B 2 1996	1/22/2014	0.125	26.1	1.19	
1550	Calcium Hardness as CaCO3	mg/L	231	236	201 - 271	Acceptable	EPA 6010B 2 1996	1/23/2014	-0.202	233	8.89	
1755	Total Hardness as CaCO3	mg/L	339	345	293 - 397	Acceptable	EPA 6010B 2 1996	1/23/2014	0.119	338	11.3	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		39.1	29.1 - 45.7	Not Reported				35.6	2.56	
1035	Calcium	mg/L		94.6	80.4 - 109	Not Reported				93.3	3.45	
1085	Magnesium	mg/L		26.5	22.5 - 30.5	Not Reported				26.1	1.19	
1550	Calcium Hardness as CaCO3	mg/L	231	236	201 - 271	Acceptable	SM 2340 B-1997 1997	1/23/2014	-0.202	233	8.89	
1755	Total Hardness as CaCO3	mg/L	339	345	293 - 397	Acceptable	SM 2340 B-1997 1997	1/23/2014	0.119	338	11.3	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		39.1	29.1 - 45.7	Not Reported				35.6	2.56	
1035	Calcium	mg/L		94.6	80.4 - 109	Not Reported				93.3	3.45	
1085	Magnesium	mg/L		26.5	22.5 - 30.5	Not Reported				26.1	1.19	
1550	Calcium Hardness as CaCO3	mg/L	231	236	201 - 271	Acceptable	SM 2340 B-2011 2011	1/23/2014	-0.202	233	8.89	
1755	Total Hardness as CaCO3	mg/L	339	345	293 - 397	Acceptable	SM 2340 B-2011 2011	1/23/2014	0.119	338	11.3	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	35.0	39.1	29.1 - 45.7	Acceptable	SM2540D 22nd ED 2011	1/22/2014	-0.241	35.6	2.56	
1035	Calcium	mg/L		94.6	80.4 - 109	Not Reported				93.3	3.45	
1085	Magnesium	mg/L		26.5	22.5 - 30.5	Not Reported				26.1	1.19	
1550	Calcium Hardness as CaCO3	mg/L	231	236	201 - 271	Acceptable	SM2340B 22nd ED 2011	1/23/2014	-0.202	233	8.89	
1755	Total Hardness as CaCO3	mg/L	339	345	293 - 397	Acceptable	SM2340B 22nd ED 2011	1/23/2014	0.119	338	11.3	
WP pH (cat# 577)												
1900	pH	S.U.	5.74	5.74	5.54 - 5.94	Acceptable	SM4500H+ B 22nd ED 2011	1/28/2014	0.143	5.73	0.0471	
WP pH (cat# 577)												
1900	pH	S.U.	5.74	5.74	5.54 - 5.94	Acceptable	SM 4500-H+ B-2011 2011	1/28/2014	0.143	5.73	0.0471	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP pH (cat# 577)												
1900	pH	S.U.	5.74	5.74	5.54 - 5.94	Acceptable	SM 4500-H+ B-2000 2000	1/28/2014	0.143	5.73	0.0471	
WP pH (cat# 577)												
1900	pH	S.U.	5.74	5.74	5.54 - 5.94	Acceptable	EPA 9040B 2 1995	1/28/2014	0.143	5.73	0.0471	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	29.0	28.8	23.5 - 36.6	Acceptable	SM2540F 22nd ED 2011	2/4/2014	-0.528	30.3	2.47	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	29.0	28.8	23.5 - 36.6	Acceptable	SM 2540 F-2011 2011	2/4/2014	-0.528	30.3	2.47	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	29.0	28.8	23.5 - 36.6	Acceptable	SM 2540 F-1997 1997	2/4/2014	-0.528	30.3	2.47	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	200	226	156 - 270	Acceptable	SM 2540 E-1997 1997	1/22/2014	-0.775	216	20.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	200	226	156 - 270	Acceptable	SM 2540 E-2011 2011	1/22/2014	-0.775	216	20.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	200	226	156 - 270	Acceptable	SM2540E 22nd ED 2011	1/22/2014	-0.775	216	20.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	200	226	156 - 270	Acceptable	EPA 160.4 1979	1/22/2014	-0.775	216	20.5	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.06	5.11	3.96 - 6.30	Acceptable	EPA 350.1 2 1993	1/27/2014	2.07	5.16	0.434	
1820	Nitrate + Nitrite as N	mg/L	3.82	3.97	3.23 - 4.68	Acceptable	EPA 300.0 2.1 1993	1/23/2014	-0.594	3.97	0.251	
1810	Nitrate as N	mg/L	3.82	3.97	3.16 - 4.75	Acceptable	EPA 300.0 2.1 1993	1/23/2014	-0.631	3.97	0.237	
1870	ortho-Phosphate as P	mg/L	4.55	4.95	4.21 - 5.69	Acceptable	EPA 365.1 2 1993	1/23/2014	-1.79	4.97	0.235	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.06	5.11	3.96 - 6.30	Acceptable	SM4500NH3 H 20th ED 1997	1/27/2014	2.07	5.16	0.434	
1820	Nitrate + Nitrite as N	mg/L	3.82	3.97	3.23 - 4.68	Acceptable	EPA 9056 1994	1/23/2014	-0.594	3.97	0.251	
1810	Nitrate as N	mg/L	3.82	3.97	3.16 - 4.75	Acceptable	EPA 9056 1994	1/23/2014	-0.631	3.97	0.237	
1870	ortho-Phosphate as P	mg/L	4.55	4.95	4.21 - 5.69	Acceptable	SM 4500-P E-1999 1999	1/23/2014	-1.79	4.97	0.235	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.06	5.11	3.96 - 6.30	Acceptable	SM 4500-NH3 H-2011 2011	1/27/2014	2.07	5.16	0.434	
1820	Nitrate + Nitrite as N	mg/L	4.12	3.97	3.23 - 4.68	Acceptable	EPA 353.2 2 1993	1/23/2014	0.603	3.97	0.251	
1810	Nitrate as N	mg/L	4.12	3.97	3.16 - 4.75	Acceptable	EPA 353.2 2 1993	1/23/2014	0.635	3.97	0.237	
1870	ortho-Phosphate as P	mg/L	4.55	4.95	4.21 - 5.69	Acceptable	SM 4500-P E-2011 2011	1/23/2014	-1.79	4.97	0.235	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.06	5.11	3.96 - 6.30	Acceptable	SM4500NH3 H 22nd ED 2011	1/27/2014	2.07	5.16	0.434	
1820	Nitrate + Nitrite as N	mg/L		3.97	3.23 - 4.68	Not Reported				3.97	0.251	
1810	Nitrate as N	mg/L		3.97	3.16 - 4.75	Not Reported				3.97	0.237	
1870	ortho-Phosphate as P	mg/L	4.55	4.95	4.21 - 5.69	Acceptable	SM4500P E 22nd ED 2011	1/23/2014	-1.79	4.97	0.235	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L	19.6	18.4	13.8 - 22.4	Acceptable	EPA 351.2 2 1993	2/5/2014	1.00	18.4	1.25	
1910	Total phosphorus as P	mg/L	3.80	3.68	3.03 - 4.30	Acceptable	EPA 365.1 2 1993	2/7/2014	0.556	3.69	0.197	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		18.4	13.8 - 22.4	Not Reported				18.4	1.25	
1910	Total phosphorus as P	mg/L	3.80	3.68	3.03 - 4.30	Acceptable	SM 4500-P E-1999 1999	2/7/2014	0.556	3.69	0.197	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		18.4	13.8 - 22.4	Not Reported				18.4	1.25	
1910	Total phosphorus as P	mg/L	3.80	3.68	3.03 - 4.30	Acceptable	SM4500P E 20th ED 1997	2/7/2014	0.556	3.69	0.197	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		18.4	13.8 - 22.4	Not Reported				18.4	1.25	
1910	Total phosphorus as P	mg/L	3.80	3.68	3.03 - 4.30	Acceptable	SM4500P E 22nd ED 2011	2/7/2014	0.556	3.69	0.197	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.19	2.27	1.94 - 2.60	Acceptable	EPA 300.0 2.1 1993	2/4/2014	-0.864	2.29	0.121	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.14	2.27	1.94 - 2.60	Acceptable	EPA 353.2 2 1993	2/4/2014	-1.28	2.29	0.121	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.19	2.27	1.94 - 2.60	Acceptable	EPA 9056 1994	2/4/2014	-0.864	2.29	0.121	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.27	2.27	1.94 - 2.60	Acceptable	EPA 300.1 1997	2/4/2014	-0.205	2.29	0.121	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L	38.5	40.6	20.8 - 60.4	Acceptable	SM 5210 B-2001 2001	1/23/2014	-0.323	40.7	6.67	
1555	CBOD	mg/L	40.6	36.8	15.8 - 57.8	Acceptable	SM 5210 B-2001 2001	1/23/2014	0.387	38.0	6.71	
1565	COD	mg/L	60.8	65.4	46.5 - 81.6	Acceptable	SM 5220 D-1997 1997	1/23/2014	-0.582	64.8	6.86	
2040	TOC	mg/L	27.4	25.9	21.1 - 30.6	Acceptable	SM 5310 C-2000 2000	1/24/2014	0.689	26.2	1.73	
WP Demand (cat# 578)												
1530	BOD	mg/L	38.5	40.6	20.8 - 60.4	Acceptable	SM 5210 B-2011 2011	1/23/2014	-0.323	40.7	6.67	
1555	CBOD	mg/L	40.6	36.8	15.8 - 57.8	Acceptable	SM 5210 B-2011 2011	1/23/2014	0.387	38.0	6.71	
1565	COD	mg/L	60.8	65.4	46.5 - 81.6	Acceptable	SM 5220 D-2011 2011	1/23/2014	-0.582	64.8	6.86	
2040	TOC	mg/L	27.4	25.9	21.1 - 30.6	Acceptable	SM 5310 C-2011 2011	1/24/2014	0.689	26.2	1.73	
WP Demand (cat# 578)												
1530	BOD	mg/L	38.5	40.6	20.8 - 60.4	Acceptable	SM5210B 22nd ED 2011	1/23/2014	-0.323	40.7	6.67	
1555	CBOD	mg/L	40.6	36.8	15.8 - 57.8	Acceptable	SM5210B 22nd ED 2011	1/23/2014	0.387	38.0	6.71	
1565	COD	mg/L	60.8	65.4	46.5 - 81.6	Acceptable	SM5220D 22nd ED 2011	1/23/2014	-0.582	64.8	6.86	
2040	TOC	mg/L	27.4	25.9	21.1 - 30.6	Acceptable	SM5310C 22nd ED 2011	1/24/2014	0.689	26.2	1.73	
WP Demand (cat# 578)												
1530	BOD	mg/L	38.5	40.6	20.8 - 60.4	Acceptable	SM5210B 21st ED 2001	1/23/2014	-0.323	40.7	6.67	
1555	CBOD	mg/L	40.6	36.8	15.8 - 57.8	Acceptable	SM5210B 21st ED 2001	1/23/2014	0.387	38.0	6.71	
1565	COD	mg/L	60.8	65.4	46.5 - 81.6	Acceptable	SM5220D 21st ED 1997	1/23/2014	-0.582	64.8	6.86	
2040	TOC	mg/L	27.4	25.9	21.1 - 30.6	Acceptable	SM5310C 20th ED 1996	1/24/2014	0.689	26.2	1.73	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L		40.6	20.8 - 60.4	Not Reported				40.7	6.67	
1555	CBOD	mg/L		36.8	15.8 - 57.8	Not Reported				38.0	6.71	
1565	COD	mg/L	60.8	65.4	46.5 - 81.6	Acceptable	EPA 410.4 2 1993	1/23/2014	-0.582	64.8	6.86	
2040	TOC	mg/L	27.4	25.9	21.1 - 30.6	Acceptable	EPA 9060A 2004	1/24/2014	0.689	26.2	1.73	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1390	1510	1250 - 1740	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.11	1480	83.2	
1005	Antimony	µg/L	663	717	586 - 826	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.984	698	35.4	
1010	Arsenic	µg/L		338	278 - 395	Not Reported				327	14.7	
1015	Barium	µg/L	831	850	722 - 978	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.0284	832	33.3	
1020	Beryllium	µg/L	97.7	101	85.8 - 116	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.01	103	5.36	
1025	Boron	µg/L	1160	1340	1140 - 1540	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.97	1320	80.4	
1030	Cadmium	µg/L	418	462	393 - 531	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.72	449	17.8	
1040	Chromium	µg/L	727	759	645 - 873	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.536	744	31.1	
1050	Cobalt	µg/L	651	610	518 - 702	Acceptable	EPA 200.7 4.4 1994	1/27/2014	0.961	626	26.2	
1055	Copper	µg/L	423	418	355 - 481	Acceptable	EPA 200.7 4.4 1994	1/27/2014	0.581	413	17.5	
1070	Iron	µg/L	1620	1650	1400 - 1900	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.281	1640	79.1	
1075	Lead	µg/L	944	908	772 - 1040	Acceptable	EPA 200.7 4.4 1994	1/27/2014	1.04	899	43.5	
1090	Manganese	µg/L	1530	1500	1280 - 1720	Acceptable	EPA 200.7 4.4 1994	1/27/2014	0.470	1500	64.1	
1100	Molybdenum	µg/L	200	224	190 - 255	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.81	218	9.71	
1105	Nickel	µg/L	1550	1500	1330 - 1680	Acceptable	EPA 200.7 4.4 1994	1/27/2014	1.30	1460	66.8	
1140	Selenium	µg/L		415	353 - 477	Not Reported				401	21.3	
1150	Silver	µg/L	326	310	264 - 356	Acceptable	EPA 200.7 4.4 1994	1/27/2014	1.46	305	14.7	
1160	Strontium	µg/L	240	240	204 - 276	Acceptable	EPA 200.7 4.4 1994	1/29/2014	0.339	237	9.63	
1165	Thallium	µg/L	491	476	391 - 553	Acceptable	EPA 200.7 4.4 1994	1/27/2014	1.01	466	25.2	
1185	Vanadium	µg/L	812	897	762 - 1030	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-1.97	870	29.7	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	947	987	839 - 1140	Acceptable	EPA 200.7 4.4 1994	1/27/2014	-0.318	962	47.9	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1390	1510	1250 - 1740	Acceptable	EPA 6010B 2 1996	1/27/2014	-1.11	1480	83.2	
1005	Antimony	µg/L	663	717	586 - 826	Acceptable	EPA 6010B 2 1996	1/27/2014	-0.984	698	35.4	
1010	Arsenic	µg/L		338	278 - 395	Not Reported				327	14.7	
1015	Barium	µg/L	831	850	722 - 978	Acceptable	EPA 6010B 2 1996	1/27/2014	-0.0284	832	33.3	
1020	Beryllium	µg/L	97.7	101	85.8 - 116	Acceptable	EPA 6010B 2 1996	1/27/2014	-1.01	103	5.36	
1025	Boron	µg/L	1160	1340	1140 - 1540	Acceptable	EPA 6010B 2 1996	1/27/2014	-1.97	1320	80.4	
1030	Cadmium	µg/L	418	462	393 - 531	Acceptable	EPA 6010B 2 1996	1/27/2014	-1.72	449	17.8	
1040	Chromium	µg/L	727	759	645 - 873	Acceptable	EPA 6010B 2 1996	1/27/2014	-0.536	744	31.1	
1050	Cobalt	µg/L	651	610	518 - 702	Acceptable	EPA 6010B 2 1996	1/27/2014	0.961	626	26.2	
1055	Copper	µg/L	423	418	355 - 481	Acceptable	EPA 6010B 2 1996	1/27/2014	0.581	413	17.5	
1070	Iron	µg/L	1620	1650	1400 - 1900	Acceptable	EPA 6010B 2 1996	1/27/2014	-0.281	1640	79.1	
1075	Lead	µg/L	944	908	772 - 1040	Acceptable	EPA 6010B 2 1996	1/27/2014	1.04	899	43.5	
1090	Manganese	µg/L	1530	1500	1280 - 1720	Acceptable	EPA 6010B 2 1996	1/27/2014	0.470	1500	64.1	
1100	Molybdenum	µg/L	200	224	190 - 255	Acceptable	EPA 6010B 2 1996	1/27/2014	-1.81	218	9.71	
1105	Nickel	µg/L	1550	1500	1330 - 1680	Acceptable	EPA 6010B 2 1996	1/27/2014	1.30	1460	66.8	
1140	Selenium	µg/L		415	353 - 477	Not Reported				401	21.3	
1150	Silver	µg/L	326	310	264 - 356	Acceptable	EPA 6010B 2 1996	1/27/2014	1.46	305	14.7	
1160	Strontium	µg/L	240	240	204 - 276	Acceptable	EPA 6010B 2 1996	1/29/2014	0.339	237	9.63	
1165	Thallium	µg/L	491	476	391 - 553	Acceptable	EPA 6010B 2 1996	1/27/2014	1.01	466	25.2	
1185	Vanadium	µg/L	812	897	762 - 1030	Acceptable	EPA 6010B 2 1996	1/27/2014	-1.97	870	29.7	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	947	987	839 - 1140	Acceptable	EPA 6010B 2 1996	1/27/2014	-0.318	962	47.9	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1420	1510	1250 - 1740	Acceptable	EPA 200.8 5.4 1994	2/14/2014	-0.749	1480	83.2	
1005	Antimony	µg/L	742	717	586 - 826	Acceptable	EPA 200.8 5.4 1994	2/14/2014	1.25	698	35.4	
1010	Arsenic	µg/L	347	338	278 - 395	Acceptable	EPA 200.8 5.4 1994	2/14/2014	1.35	327	14.7	
1015	Barium	µg/L	833	850	722 - 978	Acceptable	EPA 200.8 5.4 1994	2/14/2014	0.0317	832	33.3	
1020	Beryllium	µg/L	103	101	85.8 - 116	Acceptable	EPA 200.8 5.4 1994	2/14/2014	-0.0224	103	5.36	
1025	Boron	µg/L		1340	1140 - 1540	Not Reported				1320	80.4	
1030	Cadmium	µg/L	472	462	393 - 531	Acceptable	EPA 200.8 5.4 1994	2/14/2014	1.31	449	17.8	
1040	Chromium	µg/L	741	759	645 - 873	Acceptable	EPA 200.8 5.4 1994	2/14/2014	-0.0857	744	31.1	
1050	Cobalt	µg/L	632	610	518 - 702	Acceptable	EPA 200.8 5.4 1994	2/14/2014	0.235	626	26.2	
1055	Copper	µg/L	414	418	355 - 481	Acceptable	EPA 200.8 5.4 1994	2/14/2014	0.0672	413	17.5	
1070	Iron	µg/L		1650	1400 - 1900	Not Reported				1640	79.1	
1075	Lead	µg/L	900	908	772 - 1040	Acceptable	EPA 200.8 5.4 1994	2/14/2014	0.0343	899	43.5	
1090	Manganese	µg/L	1470	1500	1280 - 1720	Acceptable	EPA 200.8 5.4 1994	2/14/2014	-0.466	1500	64.1	
1100	Molybdenum	µg/L	214	224	190 - 255	Acceptable	EPA 200.8 5.4 1994	2/14/2014	-0.366	218	9.71	
1105	Nickel	µg/L	1470	1500	1330 - 1680	Acceptable	EPA 200.8 5.4 1994	2/14/2014	0.105	1460	66.8	
1140	Selenium	µg/L	450	415	353 - 477	Acceptable	EPA 200.8 5.4 1994	2/14/2014	2.29	401	21.3	
1150	Silver	µg/L	302	310	264 - 356	Acceptable	EPA 200.8 5.4 1994	2/26/2014	-0.170	305	14.7	
1160	Strontium	µg/L		240	204 - 276	Not Reported				237	9.63	
1165	Thallium	µg/L	462	476	391 - 553	Acceptable	EPA 200.8 5.4 1994	2/27/2014	-0.141	466	25.2	
1185	Vanadium	µg/L	877	897	762 - 1030	Acceptable	EPA 200.8 5.4 1994	2/14/2014	0.223	870	29.7	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1060	987	839 - 1140	Acceptable	EPA 200.8 5.4 1994	2/14/2014	2.04	962	47.9	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1420	1510	1250 - 1740	Acceptable	EPA 6020 0 1994	2/14/2014	-0.749	1480	83.2	
1005	Antimony	µg/L	742	717	586 - 826	Acceptable	EPA 6020 0 1994	2/14/2014	1.25	698	35.4	
1010	Arsenic	µg/L	347	338	278 - 395	Acceptable	EPA 6020 0 1994	2/14/2014	1.35	327	14.7	
1015	Barium	µg/L	833	850	722 - 978	Acceptable	EPA 6020 0 1994	2/14/2014	0.0317	832	33.3	
1020	Beryllium	µg/L	103	101	85.8 - 116	Acceptable	EPA 6020 0 1994	2/14/2014	-0.0224	103	5.36	
1025	Boron	µg/L		1340	1140 - 1540	Not Reported				1320	80.4	
1030	Cadmium	µg/L	472	462	393 - 531	Acceptable	EPA 6020 0 1994	2/14/2014	1.31	449	17.8	
1040	Chromium	µg/L	741	759	645 - 873	Acceptable	EPA 6020 0 1994	2/14/2014	-0.0857	744	31.1	
1050	Cobalt	µg/L	632	610	518 - 702	Acceptable	EPA 6020 0 1994	2/14/2014	0.235	626	26.2	
1055	Copper	µg/L	414	418	355 - 481	Acceptable	EPA 6020 0 1994	2/14/2014	0.0672	413	17.5	
1070	Iron	µg/L		1650	1400 - 1900	Not Reported				1640	79.1	
1075	Lead	µg/L	900	908	772 - 1040	Acceptable	EPA 6020 0 1994	2/14/2014	0.0343	899	43.5	
1090	Manganese	µg/L	1470	1500	1280 - 1720	Acceptable	EPA 6020 0 1994	2/14/2014	-0.466	1500	64.1	
1100	Molybdenum	µg/L	214	224	190 - 255	Acceptable	EPA 6020 0 1994	2/14/2014	-0.366	218	9.71	
1105	Nickel	µg/L	1470	1500	1330 - 1680	Acceptable	EPA 6020 0 1994	2/14/2014	0.105	1460	66.8	
1140	Selenium	µg/L	450	415	353 - 477	Acceptable	EPA 6020 0 1994	2/14/2014	2.29	401	21.3	
1150	Silver	µg/L	302	310	264 - 356	Acceptable	EPA 6020 0 1994	2/26/2014	-0.170	305	14.7	
1160	Strontium	µg/L		240	204 - 276	Not Reported				237	9.63	
1165	Thallium	µg/L	462	476	391 - 553	Acceptable	EPA 6020 0 1994	2/27/2014	-0.141	466	25.2	
1185	Vanadium	µg/L	877	897	762 - 1030	Acceptable	EPA 6020 0 1994	2/14/2014	0.223	870	29.7	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1060	987	839 - 1140	Acceptable	EPA 6020 0 1994	2/14/2014	2.04	962	47.9	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1420	1510	1250 - 1740	Acceptable	EPA 6020A 1 2007	2/14/2014	-0.749	1480	83.2	
1005	Antimony	µg/L	742	717	586 - 826	Acceptable	EPA 6020A 1 2007	2/14/2014	1.25	698	35.4	
1010	Arsenic	µg/L	347	338	278 - 395	Acceptable	EPA 6020A 1 2007	2/14/2014	1.35	327	14.7	
1015	Barium	µg/L	833	850	722 - 978	Acceptable	EPA 6020A 1 2007	2/14/2014	0.0317	832	33.3	
1020	Beryllium	µg/L	103	101	85.8 - 116	Acceptable	EPA 6020A 1 2007	2/14/2014	-0.0224	103	5.36	
1025	Boron	µg/L		1340	1140 - 1540	Not Reported				1320	80.4	
1030	Cadmium	µg/L	472	462	393 - 531	Acceptable	EPA 6020A 1 2007	2/14/2014	1.31	449	17.8	
1040	Chromium	µg/L	741	759	645 - 873	Acceptable	EPA 6020A 1 2007	2/14/2014	-0.0857	744	31.1	
1050	Cobalt	µg/L	632	610	518 - 702	Acceptable	EPA 6020A 1 2007	2/14/2014	0.235	626	26.2	
1055	Copper	µg/L	414	418	355 - 481	Acceptable	EPA 6020A 1 2007	2/14/2014	0.0672	413	17.5	
1070	Iron	µg/L		1650	1400 - 1900	Not Reported				1640	79.1	
1075	Lead	µg/L	900	908	772 - 1040	Acceptable	EPA 6020A 1 2007	2/14/2014	0.0343	899	43.5	
1090	Manganese	µg/L	1470	1500	1280 - 1720	Acceptable	EPA 6020A 1 2007	2/14/2014	-0.466	1500	64.1	
1100	Molybdenum	µg/L	214	224	190 - 255	Acceptable	EPA 6020A 1 2007	2/14/2014	-0.366	218	9.71	
1105	Nickel	µg/L	1470	1500	1330 - 1680	Acceptable	EPA 6020A 1 2007	2/14/2014	0.105	1460	66.8	
1140	Selenium	µg/L	450	415	353 - 477	Acceptable	EPA 6020A 1 2007	2/14/2014	2.29	401	21.3	
1150	Silver	µg/L	302	310	264 - 356	Acceptable	EPA 6020A 1 2007	2/26/2014	-0.170	305	14.7	
1160	Strontium	µg/L		240	204 - 276	Not Reported				237	9.63	
1165	Thallium	µg/L	462	476	391 - 553	Acceptable	EPA 6020A 1 2007	2/27/2014	-0.141	466	25.2	
1185	Vanadium	µg/L	877	897	762 - 1030	Acceptable	EPA 6020A 1 2007	2/14/2014	0.223	870	29.7	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1060	987	839 - 1140	Acceptable	EPA 6020A 1 2007	2/14/2014	2.04	962	47.9	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.34	8.17	5.72 - 10.6	Acceptable	EPA 245.1 3 1994	1/24/2014	0.256	8.15	0.738	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.34	8.17	5.72 - 10.6	Acceptable	EPA 7470A 1 1994	1/24/2014	0.256	8.15	0.738	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	639	673	566 - 771	Acceptable	EPA 218.6 3.3 1994	1/24/2014	-0.846	667	33.1	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	688	673	566 - 771	Acceptable	SM 3500-Cr B-2009 2009	1/21/2014	0.636	667	33.1	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	688	673	566 - 771	Acceptable	SM 3500-Cr B-2011 2011	1/21/2014	0.636	667	33.1	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	639	673	566 - 771	Acceptable	SM 3500-Cr C-2009 2009	1/24/2014	-0.846	667	33.1	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	639	673	566 - 771	Acceptable	SM 3500-Cr C-2011 2011	1/24/2014	-0.846	667	33.1	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	639	673	566 - 771	Acceptable	EPA 7199 1996	1/24/2014	-0.846	667	33.1	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	688	673	566 - 771	Acceptable	EPA 7196A 1 1992	1/21/2014	0.636	667	33.1	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	1630	1690	1180 - 2200	Acceptable	EPA 200.7 4.4 1994	1/29/2014	-0.691	1700	97.2	
1180	Titanium	µg/L	109	114	96.9 - 131	Acceptable	EPA 200.7 4.4 1994	1/29/2014	-0.755	114	6.74	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	1630	1690	1180 - 2200	Acceptable	EPA 6010B 2 1996	1/29/2014	-0.691	1700	97.2	
1180	Titanium	µg/L	109	114	96.9 - 131	Acceptable	EPA 6010B 2 1996	1/29/2014	-0.755	114	6.74	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	1720	1690	1180 - 2200	Acceptable	EPA 200.8 5.4 1994	2/24/2014	0.236	1700	97.2	
1180	Titanium	µg/L	109	114	96.9 - 131	Acceptable	EPA 200.8 5.4 1994	2/24/2014	-0.755	114	6.74	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	1720	1690	1180 - 2200	Acceptable	EPA 6020 1994	2/24/2014	0.236	1700	97.2	
1180	Titanium	µg/L	109	114	96.9 - 131	Acceptable	EPA 6020 1994	2/24/2014	-0.755	114	6.74	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	1720	1690	1180 - 2200	Acceptable	EPA 6020A 1 2007	2/24/2014	0.236	1700	97.2	
1180	Titanium	µg/L	109	114	96.9 - 131	Acceptable	EPA 6020A 1 2007	2/24/2014	-0.755	114	6.74	
WP Color (cat# 882)												
1605	Color	PC units	50.0	50.0	35.2 - 60.8	Acceptable	SM 2120 B-2001 2001	1/24/2014	0.314	48.5	4.67	
WP Color (cat# 882)												
1605	Color	PC units	50.0	50.0	35.2 - 60.8	Acceptable	SM 2120 B-2011 2011	1/24/2014	0.314	48.5	4.67	
WP Color (cat# 882)												
1605	Color	PC units	50.0	50.0	35.2 - 60.8	Acceptable	SM2120B 22nd ED 2011	1/24/2014	0.314	48.5	4.67	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.86	3.99	2.93 - 5.01	Acceptable	EPA 180.1 2 1993	1/28/2014	-0.497	3.99	0.265	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.86	3.99	2.93 - 5.01	Acceptable	SM 2130 B-2001 2001	1/28/2014	-0.497	3.99	0.265	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.86	3.99	2.93 - 5.01	Acceptable	SM 2130 B-2011 2011	1/28/2014	-0.497	3.99	0.265	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	3.86	3.99	2.93 - 5.01	Acceptable	SM2130B 22nd ED 2011	1/28/2014	-0.497	3.99	0.265	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.616	0.674	0.438 - 0.910	Acceptable	EPA 335.4 1993	2/7/2014	-0.725	0.665	0.0680	
1510	Amenable Cyanide	mg/L		0.359	0.233 - 0.485	Not Reported				0.398	0.0616	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.616	0.674	0.438 - 0.910	Acceptable	SM4500CN F 1999	2/7/2014	-0.725	0.665	0.0680	
1510	Amenable Cyanide	mg/L		0.359	0.233 - 0.485	Not Reported				0.398	0.0616	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.616	0.674	0.438 - 0.910	Acceptable	SM 4500-CN F-2011 2011	2/7/2014	-0.725	0.665	0.0680	
1510	Amenable Cyanide	mg/L		0.359	0.233 - 0.485	Not Reported				0.398	0.0616	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.616	0.674	0.438 - 0.910	Acceptable	EPA 9012A 1996	2/7/2014	-0.725	0.665	0.0680	
1510	Amenable Cyanide	mg/L		0.359	0.233 - 0.485	Not Reported				0.398	0.0616	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.616	0.674	0.438 - 0.910	Acceptable	SM4500CN F 22nd ED 2011	2/7/2014	-0.725	0.665	0.0680	
1510	Amenable Cyanide	mg/L		0.359	0.233 - 0.485	Not Reported				0.398	0.0616	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	0.685	0.653	0.323 - 0.983	Acceptable	EPA 420.4 1 1993	2/14/2014	0.0487	0.680	0.111	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	0.685	0.653	0.323 - 0.983	Acceptable	EPA 420.1 1978	2/14/2014	0.0487	0.680	0.111	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	0.685	0.653	0.323 - 0.983	Acceptable	EPA 9066 1986	2/14/2014	0.0487	0.680	0.111	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	220	209	157 - 261	Acceptable	EPA 200.7 5 1998	1/22/2014	0.896	208	13.9	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	220	209	157 - 261	Acceptable	EPA 6010B 2 1996	1/22/2014	0.896	208	13.9	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	206	209	157 - 261	Acceptable	SM 4500-SiO2 C-1997 1997	1/21/2014	-0.115	208	13.9	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	206	209	157 - 261	Acceptable	SM 4500-SiO2 C-2011 2011	1/21/2014	-0.115	208	13.9	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	206	209	157 - 261	Acceptable	SM4500SiO2 C 22nd ED 2011	1/21/2014	-0.115	208	13.9	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	2.05	3.96	1.42 - 5.97	Acceptable	EPA 376.2 1978	1/27/2014	-1.08	2.93	0.816	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	2.05	3.96	1.42 - 5.97	Acceptable	SM 4500-S2 D-2000 2000	1/27/2014	-1.08	2.93	0.816	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	2.05	3.96	1.42 - 5.97	Acceptable	SM 4500-S2 D-2011 2011	1/27/2014	-1.08	2.93	0.816	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	2.05	3.96	1.42 - 5.97	Acceptable	EPA 9034 1996	1/27/2014	-1.08	2.93	0.816	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	2.05	3.96	1.42 - 5.97	Acceptable	SM4500S2- D 22nd ED 2011	1/27/2014	-1.08	2.93	0.816	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.465	0.505	0.305 - 0.734	Acceptable	SM 5540 C-2000 2000	1/23/2014	-0.832	0.530	0.0779	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.465	0.505	0.305 - 0.734	Acceptable	SM 5540 C-2011 2011	1/23/2014	-0.832	0.530	0.0779	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.465	0.505	0.305 - 0.734	Acceptable	SM5540C 22nd ED 2011	1/23/2014	-0.832	0.530	0.0779	
WP Boron (cat# 886)												
1025	Boron	µg/L	1030	1140	969 - 1310	Acceptable	EPA 200.7 4.4 1994	1/22/2014	-1.24	1090	51.9	
WP Boron (cat# 886)												
1025	Boron	µg/L	1030	1140	969 - 1310	Acceptable	EPA 6010B 2 1996	1/22/2014	-1.24	1090	51.9	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	5.15	4.99	4.11 - 5.86	Acceptable	EPA 300.0 2.1 1993	1/30/2014	0.395	5.03	0.299	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	4.99	4.99	4.11 - 5.86	Acceptable	EPA 300.1 1997	2/4/2014	-0.140	5.03	0.299	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Bromide (cat# 887)												
1540	Bromide	mg/L	5.15	4.99	4.11 - 5.86	Acceptable	EPA 9056 1994	1/30/2014	0.395	5.03	0.299	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.09	1.11	0.825 - 1.33	Acceptable	SM 4500-Cl G-2000 2000	1/29/2014	-0.0643	1.10	0.0837	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.09	1.11	0.825 - 1.33	Acceptable	SM 4500-Cl G-2011 2011	1/29/2014	-0.0643	1.10	0.0837	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.09	1.11	0.825 - 1.33	Acceptable	SM4500Cl G 22nd ED 2011	1/29/2014	-0.0643	1.10	0.0837	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-228**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	330	801	117 - 1890	Acceptable	SM9221B LTB online	2/3/2014	-0.478	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL	330	801	40.7 - 3390	Acceptable	SM9221B+E LTBEC online	2/3/2014	-0.0749	372	559	
2525	E.coli (MPN)	MPN/100mL	330	801	106 - 1060	Acceptable	SM9221B+E LTBEC online	2/5/2014	-0.0267	334	159	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	330	801	117 - 1890	Acceptable	SM 9221 B-2006 2006	2/3/2014	-0.478	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL	330	801	40.7 - 3390	Acceptable	SM 9221 E + C-2006 2006	2/3/2014	-0.0749	372	559	
2525	E.coli (MPN)	MPN/100mL	330	801	106 - 1060	Acceptable	SM 9221 B.1 + F-2006 2006	2/5/2014	-0.0267	334	159	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	490	801	117 - 1890	Acceptable	SM9223B MPN online	1/30/2014	0.0633	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	490	801	217 - 1250	Acceptable	SM9223B MPN online	1/30/2014	-0.180	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	490	801	117 - 1890	Acceptable	SM9223B MPN 22nd ED 2004	1/30/2014	0.0633	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	490	801	217 - 1250	Acceptable	SM9223B MPN 22nd ED 2004	1/30/2014	-0.180	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	230	801	117 - 1890	Acceptable	SM9223 COLert18 online	1/30/2014	-0.816	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	230	801	217 - 1250	Acceptable	SM9223 COLert18 online	1/30/2014	-1.69	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	230	801	117 - 1890	Acceptable	SM9223 COLert18 22nd ED 2004	1/30/2014	-0.816	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	230	801	217 - 1250	Acceptable	SM9223 COLert18 22nd ED 2004	1/30/2014	-1.69	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	613	801	117 - 1890	Acceptable	SM9223 COLertQT online	1/30/2014	0.479	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	613	801	217 - 1250	Acceptable	SM9223 COLertQT online	1/30/2014	0.534	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	613	801	117 - 1890	Acceptable	SM9223 COLertQT 21st ED 1997	1/30/2014	0.479	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	613	801	217 - 1250	Acceptable	SM9223 COLertQT 21st ED 1997	1/30/2014	0.534	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	435	801	117 - 1890	Acceptable	SM9223 COLt18QT 21st ED 2005	1/30/2014	-0.123	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	435	801	217 - 1250	Acceptable	SM9223 COLt18QT 21st ED 2005	1/30/2014	-0.500	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	435	801	117 - 1890	Acceptable	SM9223 COLt18QT online	1/30/2014	-0.123	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	435	801	217 - 1250	Acceptable	SM9223 COLt18QT online	1/30/2014	-0.500	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	228	801	117 - 1890	Acceptable	SM9223 COLsurQT online	1/31/2014	-0.823	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	228	801	217 - 1250	Acceptable	SM9223 COLsurQT online	1/31/2014	-1.70	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	228	801	117 - 1890	Acceptable	SM9223 COLsurQT 21st ED 1997	1/31/2014	-0.823	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL		801	40.7 - 3390	Not Reported				372	559	
2525	E.coli (MPN)	MPN/100mL	228	801	217 - 1250	Acceptable	SM9223 COLsurQT 21st ED 1997	1/31/2014	-1.70	521	172	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		554	159 - 880	Not Reported				375	120	
2530	Fecal Coliforms (MF)	CFU/100mL		554	15.0 - 1340	Not Reported				143	222	
2525	E.coli (MF)	CFU/100mL		554	56.0 - 1120	Not Reported				251	177	
2500	Total Coliforms (MPN)	MPN/100mL	330	801	117 - 1890	Acceptable	SM9221B 22nd ED 2006	2/3/2014	-0.478	471	296	
2530	Fecal Coliforms (MPN)	MPN/100mL	330	801	40.7 - 3390	Acceptable	SM9221C 22nd ED 2011	2/3/2014	-0.0749	372	559	
2525	E.coli (MPN)	MPN/100mL	330	801	106 - 1060	Acceptable	SM9221F 21st ED 2001	2/5/2014	-0.0267	334	159	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		391	187 - 662	Not Reported				352	79.3	
2520	Enterococci (MPN)	MPN/100mL	700	717	168 - 1150	Acceptable	SM 9230 B-2007 2007	2/3/2014	1.60	439	163	
2540	Fecal Streptococci (MF)	CFU/100mL		391	399 - 613	Not Reported				494	35.6	
2540	Fecal Streptococci (MPN)	MPN/100mL	700	717	200 - 1620	Acceptable	SM 9230 B-2007 2007	2/3/2014	0.555	569	236	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		391	187 - 662	Not Reported				352	79.3	
2520	Enterococci (MPN)	MPN/100mL	700	717	168 - 1150	Acceptable	SM9230B NaCl online	2/3/2014	1.60	439	163	
2540	Fecal Streptococci (MF)	CFU/100mL		391	399 - 613	Not Reported				494	35.6	
2540	Fecal Streptococci (MPN)	MPN/100mL	700	717	200 - 1620	Acceptable	SM9230B NaCl online	2/3/2014	0.555	569	236	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-228**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.0	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4340	Acrylonitrile	µg/L	< 2.0	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4375	Benzene	µg/L	29.6	29.8	20.9 - 38.7	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.108	29.9	2.40	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4395	Bromodichloromethane	µg/L	82.2	76.0	45.6 - 106	Acceptable	EPA 624 Appendix A 1982	2/12/2014	0.415	79.3	6.88	
4400	Bromoform	µg/L	57.2	59.7	35.8 - 83.6	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.463	60.6	7.38	
4950	Bromomethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4410	2-Butanone (MEK)	µg/L	< 5.0	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	84.5	72.5	48.7 - 98.9	Acceptable	EPA 624 Appendix A 1982	2/12/2014	1.49	75.5	6.03	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4455	Carbon tetrachloride	µg/L	104	124	70.6 - 167	Acceptable	EPA 624 Appendix A 1982	2/18/2014	-0.740	118	19.1	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4575	Chlorodibromomethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4485	Chloroethane	µg/L	41.3	26.7	10.7 - 42.7	Acceptable	EPA 624 Appendix A 1982	2/12/2014	1.96	31.1	5.23	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/14/2014				
4505	Chloroform	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4960	Chloromethane	µg/L	33.7	24.4	9.76 - 39.0	Acceptable	EPA 624 Appendix A 1982	2/12/2014	1.04	28.5	4.98	
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L	< 9.00	< 9.00	0.00 - 9.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4585	1,2-Dibromoethane (EDB)	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4595	Dibromomethane	µg/L	106	100	65.0 - 135	Acceptable	EPA 624 Appendix A 1982	2/14/2014	0.272	104	7.95	
4610	1,2-Dichlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4615	1,3-Dichlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4620	1,4-Dichlorobenzene	µg/L	75.0	90.3	63.2 - 117	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.996	84.5	9.50	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4630	1,1-Dichloroethane	µg/L	< 0.50	< 6.40	0.00 - 6.40	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4635	1,2-Dichloroethane	µg/L	105	104	73.9 - 134	Acceptable	EPA 624 Appendix A 1982	2/18/2014	-0.168	107	9.43	
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4645	cis-1,2-Dichloroethylene	µg/L	17.2	16.5	11.4 - 22.3	Acceptable	EPA 624 Appendix A 1982	2/12/2014	0.308	16.7	1.72	
4700	trans-1,2-Dichloroethylene	µg/L	58.4	54.8	32.9 - 76.7	Acceptable	EPA 624 Appendix A 1982	2/12/2014	0.0892	57.9	5.84	
4655	1,2-Dichloropropane	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	33.1	30.7	20.0 - 41.4	Acceptable	EPA 624 Appendix A 1982	2/12/2014	1.69	28.7	2.58	
4685	trans-1,3-Dichloropropylene	µg/L	45.3	43.6	28.3 - 58.9	Acceptable	EPA 624 Appendix A 1982	2/12/2014	0.797	41.9	4.29	
4765	Ethylbenzene	µg/L	79.1	73.2	51.2 - 95.2	Acceptable	EPA 624 Appendix A 1982	2/12/2014	0.216	77.1	9.50	
4835	Hexachlorobutadiene	µg/L		102	11.6 - 122	Not Reported				77.6	30.0	
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	63.6	58.0	34.8 - 81.2	Acceptable	EPA 624 Appendix A 1982	2/12/2014	0.387	61.2	6.19	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
5005	Naphthalene	µg/L		17.6	7.58 - 26.2	Not Reported				16.8	3.33	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	88.5	103	67.0 - 139	Acceptable	EPA 624 Appendix A 1982	2/18/2014	-0.923	98.9	11.3	
5105	1,1,1,2-Tetrachloroethane	µg/L	84.2	94.8	61.6 - 128	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.989	95.0	10.9	
5110	1,1,2,2-Tetrachloroethane	µg/L	67.3	52.5	34.1 - 70.9	Acceptable	EPA 624 Appendix A 1982	2/12/2014	2.38	54.7	5.30	
5115	Tetrachloroethylene	µg/L	< 0.50	< 4.30	0.00 - 4.30	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
5140	Toluene	µg/L	56.1	56.5	39.6 - 73.4	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.161	56.8	4.62	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		93.1	41.3 - 127	Not Reported				82.4	18.5	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
5165	1,1,2-Trichloroethane	µg/L	71.8	62.6	43.8 - 81.4	Acceptable	EPA 624 Appendix A 1982	2/12/2014	1.23	65.2	5.36	
5170	Trichloroethylene	µg/L	66.9	74.3	47.2 - 96.7	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-1.01	73.9	6.94	
5175	Trichlorofluoromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
5180	1,2,3-Trichloropropane (TCP)	µg/L	108	94.6	43.7 - 142	Acceptable	EPA 624 Appendix A 1982	2/14/2014	0.608	99.4	14.1	
5210	1,2,4-Trimethylbenzene	µg/L		101	65.6 - 136	Not Reported				95.6	16.3	
5215	1,3,5-Trimethylbenzene	µg/L		104	67.6 - 140	Not Reported				93.6	17.2	
5225	Vinyl acetate	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	2/12/2014				
5240	m&p-Xylene	µg/L	12.4	12.7	7.62 - 17.8	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.0927	12.5	1.61	
5250	o-Xylene	µg/L	10.4	10.5	6.30 - 14.7	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.0526	10.5	1.27	
5260	Xylenes, total	µg/L	22.8	23.2	13.9 - 32.5	Acceptable	EPA 624 Appendix A 1982	2/12/2014	-0.104	23.1	2.66	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 8260B 2 1996	2/12/2014				
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4340	Acrylonitrile	µg/L	< 2.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4375	Benzene	µg/L	29.6	29.8	20.9 - 38.7	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.108	29.9	2.40	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4395	Bromodichloromethane	µg/L	82.2	76.0	45.6 - 106	Acceptable	EPA 8260B 2 1996	2/12/2014	0.415	79.3	6.88	
4400	Bromoform	µg/L	57.2	59.7	35.8 - 83.6	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.463	60.6	7.38	
4950	Bromomethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	84.5	72.5	48.7 - 98.9	Acceptable	EPA 8260B 2 1996	2/12/2014	1.49	75.5	6.03	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4455	Carbon tetrachloride	µg/L	104	124	70.6 - 167	Acceptable	EPA 8260B 2 1996	2/14/2014	-0.740	118	19.1	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4575	Chlorodibromomethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4485	Chloroethane	µg/L	41.3	26.7	10.7 - 42.7	Acceptable	EPA 8260B 2 1996	2/12/2014	1.96	31.1	5.23	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/14/2014				
4505	Chloroform	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4960	Chloromethane	µg/L	33.7	24.4	9.76 - 39.0	Acceptable	EPA 8260B 2 1996	2/12/2014	1.04	28.5	4.98	
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L	< 9.00	< 9.00	0.00 - 9.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4585	1,2-Dibromoethane (EDB)	µg/L	< 6.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	2/12/2014				
4595	Dibromomethane	µg/L	106	100	65.0 - 135	Acceptable	EPA 8260B 2 1996	2/14/2014	0.272	104	7.95	
4610	1,2-Dichlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4615	1,3-Dichlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4620	1,4-Dichlorobenzene	µg/L	75.0	90.3	63.2 - 117	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.996	84.5	9.50	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4630	1,1-Dichloroethane	µg/L	< 0.50	< 6.40	0.00 - 6.40	Acceptable	EPA 8260B 2 1996	2/12/2014				
4635	1,2-Dichloroethane	µg/L	105	104	73.9 - 134	Acceptable	EPA 8260B 2 1996	2/14/2014	-0.168	107	9.43	
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 8260B 2 1996	2/12/2014				
4645	cis-1,2-Dichloroethylene	µg/L	17.2	16.5	11.4 - 22.3	Acceptable	EPA 8260B 2 1996	2/12/2014	0.308	16.7	1.72	
4700	trans-1,2-Dichloroethylene	µg/L	58.4	54.8	32.9 - 76.7	Acceptable	EPA 8260B 2 1996	2/12/2014	0.0892	57.9	5.84	
4655	1,2-Dichloropropane	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	33.1	30.7	20.0 - 41.4	Acceptable	EPA 8260B 2 1996	2/12/2014	1.69	28.7	2.58	
4685	trans-1,3-Dichloropropylene	µg/L	45.3	43.6	28.3 - 58.9	Acceptable	EPA 8260B 2 1996	2/12/2014	0.797	41.9	4.29	
4765	Ethylbenzene	µg/L	79.1	73.2	51.2 - 95.2	Acceptable	EPA 8260B 2 1996	2/12/2014	0.216	77.1	9.50	
4835	Hexachlorobutadiene	µg/L		102	11.6 - 122	Not Reported				77.6	30.0	
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 8260B 2 1996	2/12/2014				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	63.6	58.0	34.8 - 81.2	Acceptable	EPA 8260B 2 1996	2/12/2014	0.387	61.2	6.19	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
5005	Naphthalene	µg/L		17.6	7.58 - 26.2	Not Reported				16.8	3.33	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	88.5	103	67.0 - 139	Acceptable	EPA 8260B 2 1996	2/14/2014	-0.923	98.9	11.3	
5105	1,1,1,2-Tetrachloroethane	µg/L	84.2	94.8	61.6 - 128	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.989	95.0	10.9	
5110	1,1,2,2-Tetrachloroethane	µg/L	67.3	52.5	34.1 - 70.9	Acceptable	EPA 8260B 2 1996	2/12/2014	2.38	54.7	5.30	
5115	Tetrachloroethylene	µg/L	< 0.50	< 4.30	0.00 - 4.30	Acceptable	EPA 8260B 2 1996	2/12/2014				
5140	Toluene	µg/L	56.1	56.5	39.6 - 73.4	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.161	56.8	4.62	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		93.1	41.3 - 127	Not Reported				82.4	18.5	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
5165	1,1,2-Trichloroethane	µg/L	71.8	62.6	43.8 - 81.4	Acceptable	EPA 8260B 2 1996	2/12/2014	1.23	65.2	5.36	
5170	Trichloroethylene	µg/L	66.9	74.3	47.2 - 96.7	Acceptable	EPA 8260B 2 1996	2/12/2014	-1.01	73.9	6.94	
5175	Trichlorofluoromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
5180	1,2,3-Trichloropropane (TCP)	µg/L	108	94.6	43.7 - 142	Acceptable	EPA 8260B 2 1996	2/14/2014	0.608	99.4	14.1	
5210	1,2,4-Trimethylbenzene	µg/L		101	65.6 - 136	Not Reported				95.6	16.3	
5215	1,3,5-Trimethylbenzene	µg/L		104	67.6 - 140	Not Reported				93.6	17.2	
5225	Vinyl acetate	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	2/12/2014				
5240	m&p-Xylene	µg/L	12.4	12.7	7.62 - 17.8	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.0927	12.5	1.61	
5250	o-Xylene	µg/L	10.4	10.5	6.30 - 14.7	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.0526	10.5	1.27	
5260	Xylenes, total	µg/L	22.8	23.2	13.9 - 32.5	Acceptable	EPA 8260B 2 1996	2/12/2014	-0.104	23.1	2.66	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	33.5	57.1	20.3 - 69.9	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.90	47.4	7.31	
5505	Acenaphthylene	µg/L	44.7	77.9	27.2 - 97.3	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.95	66.4	11.1	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5555	Anthracene	µg/L	< 5.0	< 3.90	0.00 - 3.90	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5575	Benzo(a)anthracene	µg/L	20.7	31.9	14.4 - 40.2	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.84	27.7	3.83	
5585	Benzo(b)fluoranthene	µg/L	< 5.0	< 7.50	0.00 - 7.50	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5600	Benzo(k)fluoranthene	µg/L	< 5.0	< 7.70	0.00 - 7.70	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5590	Benzo(g,h,i)perylene	µg/L	< 10.0	< 5.10	0.00 - 5.10	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5580	Benzo(a)pyrene	µg/L	12.6	24.7	7.92 - 32.5	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-2.53	20.7	3.20	
5630	Benzyl alcohol	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5660	4-Bromophenyl-phenylether	µg/L	30.8	52.2	21.8 - 68.7	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-2.00	43.9	6.54	
5670	Butylbenzylphthalate	µg/L	< 5.0	< 13.4	0.00 - 13.4	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5760	bis(2-Chloroethoxy)methane	µg/L	21.9	39.3	11.7 - 49.2	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.26	28.9	5.54	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5780	bis(2-Chloroisopropyl)ether	µg/L	45.7	86.8	22.3 - 108	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.13	62.8	15.1	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	65.5	116	31.9 - 138	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.47	90.8	17.2	
5825	4-Chlorophenyl-phenylether	µg/L	121	186	66.6 - 226	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.32	163	31.7	
5855	Chrysene	µg/L	< 5.0	< 5.80	0.00 - 5.80	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5895	Dibenz(a,h)anthracene	µg/L	22.6	35.9	12.7 - 50.1	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.46	32.1	6.54	
5905	Dibenzofuran	µg/L	114	194	75.8 - 217	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.35	153	28.8	
5925	Di-n-butylphthalate	µg/L	64.3	95.0	34.1 - 124	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.34	80.3	11.9	
4610	1,2-Dichlorobenzene	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
4615	1,3-Dichlorobenzene	µg/L	< 5.0	< 3.10	0.00 - 3.10	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
4620	1,4-Dichlorobenzene	µg/L	72.8	170	17.0 - 187	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.10	106	29.9	
5945	3,3'-Dichlorobenzidine	µg/L	< 50.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
6070	Diethylphthalate	µg/L	79.3	118	21.8 - 162	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-0.766	93.5	18.6	
6135	Dimethylphthalate	µg/L	72.8	117	11.7 - 170	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-0.591	87.5	24.8	
6185	2,4-Dinitrotoluene	µg/L	88.6	152	66.2 - 185	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.47	122	22.6	
6190	2,6-Dinitrotoluene	µg/L	< 5.0	< 8.20	0.00 - 8.20	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
6200	Di-n-octylphthalate	µg/L	58.3	104	30.5 - 146	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.99	89.3	15.5	
6065	bis(2-Ethylhexyl)phthalate	µg/L	58.8	100	34.2 - 132	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.91	85.6	14.0	
6265	Fluoranthene	µg/L	< 5.0	< 15.6	0.00 - 15.6	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
6270	Fluorene	µg/L	88.9	144	60.0 - 167	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.39	119	21.8	
6275	Hexachlorobenzene	µg/L	26.8	47.0	20.9 - 56.6	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-2.06	39.5	6.15	
4835	Hexachlorobutadiene	µg/L	41.8	107	12.3 - 128	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.52	72.5	20.2	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
4840	Hexachloroethane	µg/L	35.8	97.4	9.74 - 107	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.25	59.3	18.9	
6315	Indeno(1,2,3-cd)pyrene	µg/L	25.3	42.8	12.8 - 58.1	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.76	37.9	7.16	
6320	Isophorone	µg/L	< 5.0	< 7.10	0.00 - 7.10	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
6385	2-Methylnaphthalene	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5005	Naphthalene	µg/L	65.4	118	28.3 - 138	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.27	88.5	18.2	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5015	Nitrobenzene	µg/L	21.9	37.7	12.0 - 46.2	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.32	29.7	5.90	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	52.3	93.4	9.34 - 109	Acceptable	EPA 625 Appendix A 1982	1/31/2014	0.230	48.0	18.6	
6535	N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.60	0.00 - 5.60	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
6545	N-Nitroso-di-n-propylamine	µg/L	77.0	136	44.3 - 171	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.30	104	20.8	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	116	188	87.8 - 219	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.54	156	25.9	
6665	Pyrene	µg/L	< 5.0	< 4.90	0.00 - 4.90	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	16.0	30.6	3.06 - 41.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.44	23.4	5.12	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	33.5	57.1	20.3 - 69.9	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.90	47.4	7.31	
5505	Acenaphthylene	µg/L	44.7	77.9	27.2 - 97.3	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.95	66.4	11.1	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/31/2014				
5555	Anthracene	µg/L	< 5.0	< 3.90	0.00 - 3.90	Acceptable	EPA 8270C 3 1996	1/31/2014				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 8270C 3 1996	1/31/2014				
5575	Benzo(a)anthracene	µg/L	20.7	31.9	14.4 - 40.2	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.84	27.7	3.83	
5585	Benzo(b)fluoranthene	µg/L	< 5.0	< 7.50	0.00 - 7.50	Acceptable	EPA 8270C 3 1996	1/31/2014				
5600	Benzo(k)fluoranthene	µg/L	< 5.0	< 7.70	0.00 - 7.70	Acceptable	EPA 8270C 3 1996	1/31/2014				
5590	Benzo(g,h,i)perylene	µg/L	< 10.0	< 5.10	0.00 - 5.10	Acceptable	EPA 8270C 3 1996	1/31/2014				
5580	Benzo(a)pyrene	µg/L	12.6	24.7	7.92 - 32.5	Acceptable	EPA 8270C 3 1996	1/31/2014	-2.53	20.7	3.20	
5630	Benzyl alcohol	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/31/2014				
5660	4-Bromophenyl-phenylether	µg/L	30.8	52.2	21.8 - 68.7	Acceptable	EPA 8270C 3 1996	1/31/2014	-2.00	43.9	6.54	
5670	Butylbenzylphthalate	µg/L	< 5.0	< 13.4	0.00 - 13.4	Acceptable	EPA 8270C 3 1996	1/31/2014				
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/31/2014				
5760	bis(2-Chloroethoxy)methane	µg/L	21.9	39.3	11.7 - 49.2	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.26	28.9	5.54	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 8270C 3 1996	1/31/2014				
5780	bis(2-Chloroisopropyl)ether	µg/L	45.7	86.8	22.3 - 108	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.13	62.8	15.1	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	65.5	116	31.9 - 138	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.47	90.8	17.2	
5825	4-Chlorophenyl-phenylether	µg/L	121	186	66.6 - 226	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.32	163	31.7	
5855	Chrysene	µg/L	< 5.0	< 5.80	0.00 - 5.80	Acceptable	EPA 8270C 3 1996	1/31/2014				
5895	Dibenz(a,h)anthracene	µg/L	22.6	35.9	12.7 - 50.1	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.46	32.1	6.54	
5905	Dibenzofuran	µg/L	114	194	75.8 - 217	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.35	153	28.8	
5925	Di-n-butylphthalate	µg/L	64.3	95.0	34.1 - 124	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.34	80.3	11.9	
4610	1,2-Dichlorobenzene	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 8270C 3 1996	1/31/2014				
4615	1,3-Dichlorobenzene	µg/L	< 5.0	< 3.10	0.00 - 3.10	Acceptable	EPA 8270C 3 1996	1/31/2014				
4620	1,4-Dichlorobenzene	µg/L	72.8	170	17.0 - 187	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.10	106	29.9	
5945	3,3'-Dichlorobenzidine	µg/L	< 50.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	1/31/2014				
6070	Diethylphthalate	µg/L	79.3	118	21.8 - 162	Acceptable	EPA 8270C 3 1996	1/31/2014	-0.766	93.5	18.6	
6135	Dimethylphthalate	µg/L	72.8	117	11.7 - 170	Acceptable	EPA 8270C 3 1996	1/31/2014	-0.591	87.5	24.8	
6185	2,4-Dinitrotoluene	µg/L	88.6	152	66.2 - 185	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.47	122	22.6	
6190	2,6-Dinitrotoluene	µg/L	< 5.0	< 8.20	0.00 - 8.20	Acceptable	EPA 8270C 3 1996	1/31/2014				
6200	Di-n-octylphthalate	µg/L	58.3	104	30.5 - 146	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.99	89.3	15.5	
6065	bis(2-Ethylhexyl)phthalate	µg/L	58.8	100	34.2 - 132	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.91	85.6	14.0	
6265	Fluoranthene	µg/L	< 5.0	< 15.6	0.00 - 15.6	Acceptable	EPA 8270C 3 1996	1/31/2014				
6270	Fluorene	µg/L	88.9	144	60.0 - 167	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.39	119	21.8	
6275	Hexachlorobenzene	µg/L	26.8	47.0	20.9 - 56.6	Acceptable	EPA 8270C 3 1996	1/31/2014	-2.06	39.5	6.15	
4835	Hexachlorobutadiene	µg/L	41.8	107	12.3 - 128	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.52	72.5	20.2	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	1/31/2014				
4840	Hexachloroethane	µg/L	35.8	97.4	9.74 - 107	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.25	59.3	18.9	
6315	Indeno(1,2,3-cd)pyrene	µg/L	25.3	42.8	12.8 - 58.1	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.76	37.9	7.16	
6320	Isophorone	µg/L	< 5.0	< 7.10	0.00 - 7.10	Acceptable	EPA 8270C 3 1996	1/31/2014				
6385	2-Methylnaphthalene	µg/L	< 5.0	< 2.00	0.00 - 2.00	Acceptable	EPA 8270C 3 1996	1/31/2014				
5005	Naphthalene	µg/L	65.4	118	28.3 - 138	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.27	88.5	18.2	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/31/2014				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/31/2014				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/31/2014				
5015	Nitrobenzene	µg/L	21.9	37.7	12.0 - 46.2	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.32	29.7	5.90	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	52.3	93.4	9.34 - 109	Acceptable	EPA 8270C 3 1996	1/31/2014	0.230	48.0	18.6	
6535	N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.60	0.00 - 5.60	Acceptable	EPA 8270C 3 1996	1/31/2014				
6545	N-Nitroso-di-n-propylamine	µg/L	77.0	136	44.3 - 171	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.30	104	20.8	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	116	188	87.8 - 219	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.54	156	25.9	
6665	Pyrene	µg/L	< 5.0	< 4.90	0.00 - 4.90	Acceptable	EPA 8270C 3 1996	1/31/2014				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	16.0	30.6	3.06 - 41.0	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.44	23.4	5.12	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 50.0	< 30.0	0.00 - 30.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014				
5700	4-Chloro-3-methylphenol	µg/L	57.5	94.5	35.8 - 117	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.78	81.8	13.6	
5800	2-Chlorophenol	µg/L	25.1	55.9	16.7 - 67.7	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.65	41.8	10.1	
6000	2,4-Dichlorophenol	µg/L	44.5	86.8	29.2 - 104	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.80	70.1	14.2	
6005	2,6-Dichlorophenol	µg/L		63.8	21.6 - 81.7	Not Reported				57.1	11.6	
6130	2,4-Dimethylphenol	µg/L	25.9	47.9	14.1 - 60.6	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.23	35.6	7.90	
6360	4,6-Dinitro-2-methylphenol	µg/L	44.6	58.4	16.9 - 85.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-0.291	47.5	9.80	
6175	2,4-Dinitrophenol	µg/L	60.1	107	10.7 - 154	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-0.802	75.1	18.8	
6400	2-Methylphenol	µg/L	80.1	150	34.1 - 175	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-0.961	106	26.6	
6410	4-Methylphenol	µg/L	27.6	54.6	5.46 - 73.1	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.09	37.1	8.72	
6490	2-Nitrophenol	µg/L	25.6	60.4	16.8 - 77.6	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-2.07	47.6	10.6	
6500	4-Nitrophenol	µg/L	63.0	110	11.0 - 149	Acceptable	EPA 625 Appendix A 1982	1/31/2014	0.482	49.7	27.5	
6605	Pentachlorophenol	µg/L	25.2	48.7	13.2 - 67.9	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-1.47	37.2	8.14	
6625	Phenol	µg/L	52.5	141	14.1 - 189	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-0.324	63.1	32.8	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	29.2	57.1	21.0 - 73.6	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-2.03	47.4	8.93	
6840	2,4,6-Trichlorophenol	µg/L	39.4	74.5	28.0 - 91.0	Acceptable	EPA 625 Appendix A 1982	1/31/2014	-2.08	65.2	12.4	

WP-228 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 50.0	< 30.0	0.00 - 30.0	Acceptable	EPA 8270C 3 1996	1/31/2014				
5700	4-Chloro-3-methylphenol	µg/L	57.5	94.5	35.8 - 117	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.78	81.8	13.6	
5800	2-Chlorophenol	µg/L	25.1	55.9	16.7 - 67.7	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.65	41.8	10.1	
6000	2,4-Dichlorophenol	µg/L	44.5	86.8	29.2 - 104	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.80	70.1	14.2	
6005	2,6-Dichlorophenol	µg/L		63.8	21.6 - 81.7	Not Reported				57.1	11.6	
6130	2,4-Dimethylphenol	µg/L	25.9	47.9	14.1 - 60.6	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.23	35.6	7.90	
6360	4,6-Dinitro-2-methylphenol	µg/L	44.6	58.4	16.9 - 85.0	Acceptable	EPA 8270C 3 1996	1/31/2014	-0.291	47.5	9.80	
6175	2,4-Dinitrophenol	µg/L	60.1	107	10.7 - 154	Acceptable	EPA 8270C 3 1996	1/31/2014	-0.802	75.1	18.8	
6400	2-Methylphenol	µg/L	80.1	150	34.1 - 175	Acceptable	EPA 8270C 3 1996	1/31/2014	-0.961	106	26.6	
6410	4-Methylphenol	µg/L	27.6	54.6	5.46 - 73.1	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.09	37.1	8.72	
6490	2-Nitrophenol	µg/L	25.6	60.4	16.8 - 77.6	Acceptable	EPA 8270C 3 1996	1/31/2014	-2.07	47.6	10.6	
6500	4-Nitrophenol	µg/L	63.0	110	11.0 - 149	Acceptable	EPA 8270C 3 1996	1/31/2014	0.482	49.7	27.5	
6605	Pentachlorophenol	µg/L	25.2	48.7	13.2 - 67.9	Acceptable	EPA 8270C 3 1996	1/31/2014	-1.47	37.2	8.14	
6625	Phenol	µg/L	52.5	141	14.1 - 189	Acceptable	EPA 8270C 3 1996	1/31/2014	-0.324	63.1	32.8	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	29.2	57.1	21.0 - 73.6	Acceptable	EPA 8270C 3 1996	1/31/2014	-2.03	47.4	8.93	
6840	2,4,6-Trichlorophenol	µg/L	39.4	74.5	28.0 - 91.0	Acceptable	EPA 8270C 3 1996	1/31/2014	-2.08	65.2	12.4	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	416	418	243 - 570	Acceptable	SM 5320 B-2010 2010	2/6/2014	-0.704	466	71.1	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	416	418	243 - 570	Acceptable	SM5320B 20th ED 1997	2/6/2014	-0.704	466	71.1	

WP-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/03/14
Study Dates: 01/13/14 - 02/27/14

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	416	418	243 - 570	Acceptable	EPA 9020B 2 1994	2/6/2014	-0.704	466	71.1	

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

WS-222 Final Report

WatR™ Supply Proficiency Testing

WatR™ Supply Study

Open Date: 01/05/15

Close Date: 02/19/15

Report Issued Date: 02/23/15

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-222**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hardness (cat# 555)												
1035	Calcium	mg/L	77.0	75.2	63.9 - 86.5	Acceptable	EPA 200.7 4.4 1994	1/20/2015	0.253	76.1	3.42	
1085	Magnesium	mg/L	12.3	11.6	9.86 - 13.3	Acceptable	EPA 200.7 4.4 1994	1/20/2015	1.06	11.6	0.636	
1155	Sodium	mg/L	46.4	44.9	38.2 - 51.6	Acceptable	EPA 200.7 4.4 1994	1/20/2015	0.443	45.3	2.48	
1550	Calcium Hardness as CaCO3	mg/L	192	188	160 - 216	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.434	189	6.99	
1755	Total Hardness as CaCO3	mg/L	243	235	200 - 270	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.734	236	8.89	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		75.2	63.9 - 86.5	Not Reported				76.1	3.42	
1085	Magnesium	mg/L		11.6	9.86 - 13.3	Not Reported				11.6	0.636	
1155	Sodium	mg/L		44.9	38.2 - 51.6	Not Reported				45.3	2.48	
1550	Calcium Hardness as CaCO3	mg/L	192	188	160 - 216	Acceptable	SM2340B 22nd ED 2011	1/21/2015	0.434	189	6.99	
1755	Total Hardness as CaCO3	mg/L	243	235	200 - 270	Acceptable	SM2340B 22nd ED 2011	1/21/2015	0.734	236	8.89	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		75.2	63.9 - 86.5	Not Reported				76.1	3.42	
1085	Magnesium	mg/L		11.6	9.86 - 13.3	Not Reported				11.6	0.636	
1155	Sodium	mg/L		44.9	38.2 - 51.6	Not Reported				45.3	2.48	
1550	Calcium Hardness as CaCO3	mg/L	192	188	160 - 216	Acceptable	SM2340B 20th ED 1997	1/21/2015	0.434	189	6.99	
1755	Total Hardness as CaCO3	mg/L	243	235	200 - 270	Acceptable	SM2340B 20th ED 1997	1/21/2015	0.734	236	8.89	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	148	151	136 - 166	Acceptable	SM2320B 22nd ED 2011	1/15/2015	-0.618	151	4.57	
1575	Chloride	mg/L	67.4	71.1	60.4 - 81.8	Acceptable	EPA 300.0 2.1 1993	1/15/2015	-1.04	70.3	2.82	
1610	Conductivity at 25°C	µmhos/cm	672	661	595 - 727	Acceptable	SM2510B 22nd ED 2011	1/15/2015	-0.0438	673	16.9	
1730	Fluoride	mg/L	2.25	2.40	2.16 - 2.64	Acceptable	SM4500F- C 22nd ED 2011	1/15/2015	-0.954	2.39	0.147	
1820	Nitrate + Nitrite as N	mg/L	4.41	4.73	4.02 - 5.44	Acceptable	EPA 300.0 2.1 1993	1/15/2015	-1.09	4.63	0.200	
1810	Nitrate as N	mg/L	4.41	4.73	4.26 - 5.20	Acceptable	EPA 300.0 2.1 1993	1/15/2015	-1.04	4.62	0.203	
1125	Potassium	mg/L	17.9	18.2	15.5 - 20.9	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.197	18.1	1.21	
2000	Sulfate	mg/L	57.3	58.6	49.8 - 67.4	Acceptable	EPA 300.0 2.1 1993	1/15/2015	-0.0482	57.4	2.13	
1955	Total Dissolved Solids at 180°C	mg/L	574	586	469 - 703	Acceptable	SM2540C 22nd ED 2011	1/15/2015	0.472	562	25.7	
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	148	151	136 - 166	Acceptable	SM2320B 20th ED 1997	1/15/2015	-0.618	151	4.57	
1575	Chloride	mg/L		71.1	60.4 - 81.8	Not Reported				70.3	2.82	
1610	Conductivity at 25°C	µmhos/cm	672	661	595 - 727	Acceptable	SM2510B 20th ED 1997	1/15/2015	-0.0438	673	16.9	
1730	Fluoride	mg/L	2.25	2.40	2.16 - 2.64	Acceptable	SM4500F- C 20th ED 1997	1/15/2015	-0.954	2.39	0.147	
1820	Nitrate + Nitrite as N	mg/L	4.32	4.73	4.02 - 5.44	Acceptable	EPA 353.2 2 1993	1/15/2015	-1.54	4.63	0.200	
1810	Nitrate as N	mg/L	4.32	4.73	4.26 - 5.20	Acceptable	EPA 353.2 2 1993	1/15/2015	-1.48	4.62	0.203	
1125	Potassium	mg/L		18.2	15.5 - 20.9	Not Reported				18.1	1.21	
2000	Sulfate	mg/L		58.6	49.8 - 67.4	Not Reported				57.4	2.13	
1955	Total Dissolved Solids at 180°C	mg/L	574	586	469 - 703	Acceptable	SM2540C 20th ED 1997	1/15/2015	0.472	562	25.7	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L		151	136 - 166	Not Reported				151	4.57	
1575	Chloride	mg/L		71.1	60.4 - 81.8	Not Reported				70.3	2.82	
1610	Conductivity at 25°C	µmhos/cm		661	595 - 727	Not Reported				673	16.9	
1730	Fluoride	mg/L	2.33	2.40	2.16 - 2.64	Acceptable	EPA 300.0 2.1 1993	1/30/2015	-0.411	2.39	0.147	
1820	Nitrate + Nitrite as N	mg/L		4.73	4.02 - 5.44	Not Reported				4.63	0.200	
1810	Nitrate as N	mg/L		4.73	4.26 - 5.20	Not Reported				4.62	0.203	
1125	Potassium	mg/L		18.2	15.5 - 20.9	Not Reported				18.1	1.21	
2000	Sulfate	mg/L		58.6	49.8 - 67.4	Not Reported				57.4	2.13	
1955	Total Dissolved Solids at 180°C	mg/L		586	469 - 703	Not Reported				562	25.7	
WS pH (cat# 552)												
1900	pH	S.U.	5.66	5.64	5.44 - 5.84	Acceptable	EPA 150.1 1982	1/16/2015	-0.309	5.67	0.0379	
WS pH (cat# 552)												
1900	pH	S.U.	5.66	5.64	5.44 - 5.84	Acceptable	SM4500H+ B 22nd ED 2011	1/16/2015	-0.309	5.67	0.0379	
WS pH (cat# 552)												
1900	pH	S.U.	5.66	5.64	5.44 - 5.84	Acceptable	SM4500H+ B 20th ED 1996	1/16/2015	-0.309	5.67	0.0379	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	189	182	146 - 218	Acceptable	EPA 200.8 5.4 1994	1/22/2015	0.173	186	15.7	
1005	Antimony	µg/L	33.7	36.2	25.3 - 47.1	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.849	35.5	2.17	
1010	Arsenic	µg/L	15.4	15.2	10.6 - 19.8	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.0153	15.4	0.989	
1015	Barium	µg/L	1580	1690	1440 - 1940	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.20	1670	75.9	
1020	Beryllium	µg/L	11.3	11.6	9.86 - 13.3	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.151	11.4	0.510	
1025	Boron	µg/L		1720	1460 - 1980	Not Reported				1690	100	
1030	Cadmium	µg/L	13.1	11.6	9.28 - 13.9	Acceptable	EPA 200.8 5.4 1994	1/22/2015	2.12	11.6	0.702	
1040	Chromium	µg/L	38.5	36.0	30.6 - 41.4	Acceptable	EPA 200.8 5.4 1994	1/22/2015	1.14	36.3	1.95	
1055	Copper	µg/L	428	451	406 - 496	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.914	446	19.3	
1070	Iron	µg/L		833	708 - 958	Not Reported				835	35.7	
1075	Lead	µg/L	61.9	67.2	47.0 - 87.4	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.57	67.7	3.69	
1090	Manganese	µg/L	272	271	230 - 312	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.380	277	12.4	
1100	Molybdenum	µg/L	51.1	54.9	46.7 - 63.1	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.937	53.6	2.62	
1105	Nickel	µg/L	277	289	246 - 332	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.633	286	14.7	
1140	Selenium	µg/L	51.3	54.0	43.2 - 64.8	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.674	53.6	3.35	
1150	Silver	µg/L	204	203	142 - 264	Acceptable	EPA 200.8 5.4 1994	1/23/2015	0.00244	204	11.3	
1165	Thallium	µg/L	8.64	7.30	5.11 - 9.49	Acceptable	EPA 200.8 5.4 1994	1/22/2015	3.47	7.30	0.387	
1185	Vanadium	µg/L	196	203	173 - 233	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.687	200	6.24	
1190	Zinc	µg/L	1090	1140	969 - 1310	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.931	1140	57.2	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	181	182	146 - 218	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.336	186	15.7	
1005	Antimony	µg/L		36.2	25.3 - 47.1	Not Reported				35.5	2.17	
1010	Arsenic	µg/L		15.2	10.6 - 19.8	Not Reported				15.4	0.989	
1015	Barium	µg/L	1690	1690	1440 - 1940	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.253	1670	75.9	
1020	Beryllium	µg/L	11.6	11.6	9.86 - 13.3	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.437	11.4	0.510	
1025	Boron	µg/L	1700	1720	1460 - 1980	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0592	1690	100	
1030	Cadmium	µg/L	10.6	11.6	9.28 - 13.9	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-1.44	11.6	0.702	
1040	Chromium	µg/L	36.9	36.0	30.6 - 41.4	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.320	36.3	1.95	
1055	Copper	µg/L	424	451	406 - 496	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-1.12	446	19.3	
1070	Iron	µg/L	815	833	708 - 958	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.557	835	35.7	
1075	Lead	µg/L		67.2	47.0 - 87.4	Not Reported				67.7	3.69	
1090	Manganese	µg/L	286	271	230 - 312	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.749	277	12.4	
1100	Molybdenum	µg/L	57.2	54.9	46.7 - 63.1	Acceptable	EPA 200.7 4.4 1994	1/23/2015	1.39	53.6	2.62	
1105	Nickel	µg/L	297	289	246 - 332	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.724	286	14.7	
1140	Selenium	µg/L		54.0	43.2 - 64.8	Not Reported				53.6	3.35	
1150	Silver	µg/L	197	203	142 - 264	Acceptable	EPA 200.7 4.4 1994	1/28/2015	-0.619	204	11.3	
1165	Thallium	µg/L		7.30	5.11 - 9.49	Not Reported				7.30	0.387	
1185	Vanadium	µg/L	200	203	173 - 233	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0457	200	6.24	
1190	Zinc	µg/L	1140	1140	969 - 1310	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0573	1140	57.2	
WS Mercury (cat# 551)												
1095	Mercury	µg/L	2.95	3.21	2.25 - 4.17	Acceptable	EPA 245.1 3 1994	1/23/2015	-0.964	3.25	0.308	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	42.4	42.4	33.9 - 50.9	Acceptable	EPA 218.6 3.3 1994	1/22/2015	-0.120	42.7	2.44	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	41.6	42.4	33.9 - 50.9	Acceptable	EPA 218.7 1 2011	1/22/2015	-0.448	42.7	2.44	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	42.0	42.4	33.9 - 50.9	Acceptable	SM 3500-Cr B 22nd ED 2011	1/21/2015	-0.284	42.7	2.44	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	42.0	42.4	33.9 - 50.9	Acceptable	SM3500Cr B 20th ED 1997	1/21/2015	-0.284	42.7	2.44	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	112	116	81.2 - 151	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.114	113	6.00	
1595	Chlorite	µg/L	391	385	270 - 500	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.228	397	25.4	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	113	116	81.2 - 151	Acceptable	EPA 300.1 1 2000	1/23/2015	0.0529	113	6.00	
1595	Chlorite	µg/L	392	385	270 - 500	Acceptable	EPA 300.1 1 2000	1/23/2015	-0.188	397	25.4	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	112	116	81.2 - 151	Acceptable	EPA 9056 1996	1/22/2015	-0.114	113	6.00	
1595	Chlorite	µg/L		385	270 - 500	Not Reported				397	25.4	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L		25.2	17.6 - 32.8	Not Reported				25.2	2.31	
1540	Bromide	µg/L	74.5	76.6	65.1 - 88.1	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.384	76.3	4.79	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	24.2	25.2	17.6 - 32.8	Acceptable	EPA 300.1 1 2000	1/23/2015	-0.413	25.2	2.31	
1540	Bromide	µg/L	76.0	76.6	65.1 - 88.1	Acceptable	EPA 300.1 1 2000	1/23/2015	-0.0705	76.3	4.79	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	27.3	25.2	17.6 - 32.8	Acceptable	EPA 317.0 2	1/23/2015	0.930	25.2	2.31	
1540	Bromide	µg/L		76.6	65.1 - 88.1	Not Reported				76.3	4.79	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	1.62	1.56	1.33 - 1.79	Acceptable	EPA 300.0 2.1 1993	1/15/2015	0.536	1.58	0.0813	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	1.61	1.56	1.33 - 1.79	Acceptable	EPA 300.1 1 2000	1/15/2015	0.413	1.58	0.0813	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	1.64	1.56	1.33 - 1.79	Acceptable	EPA 353.2 2 1993	1/16/2015	0.782	1.58	0.0813	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.68	2.64	2.24 - 3.04	Acceptable	EPA 365.1 2 1993	1/16/2015	0.283	2.65	0.122	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.68	2.64	2.24 - 3.04	Acceptable	SM4500P E 22nd ED 2011	1/16/2015	0.283	2.65	0.122	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.68	2.64	2.24 - 3.04	Acceptable	SM4500P E 20th ED 1997	1/16/2015	0.283	2.65	0.122	
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	1.40	1.48	1.20 - 1.76	Acceptable	SM4500Cl G 22nd ED 2011	1/20/2015	0.240	1.38	0.0951	
1940	Total Residual Chlorine	mg/L	1.42	1.48	1.25 - 1.70	Acceptable	SM4500Cl G 22nd ED 2011	1/20/2015	0.000729	1.42	0.0820	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	1.40	1.48	1.20 - 1.76	Acceptable	SM4500Cl G 20th ED 1993	1/20/2015	0.240	1.38	0.0951	
1940	Total Residual Chlorine	mg/L	1.42	1.48	1.25 - 1.70	Acceptable	SM4500Cl G 20th ED 1993	1/20/2015	0.000729	1.42	0.0820	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.228	0.226	0.170 - 0.282	Acceptable	SM4500CN F 22nd ED 2011	1/16/2015	0.621	0.218	0.0154	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.228	0.226	0.170 - 0.282	Acceptable	SM4500CN F 20th ED 1997	1/16/2015	0.621	0.218	0.0154	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.212	0.226	0.170 - 0.282	Acceptable	EPA 335.4 1993	1/23/2015	-0.420	0.218	0.0154	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.212	0.226	0.170 - 0.282	Acceptable	SM 4500CN-G 2011	1/23/2015	-0.420	0.218	0.0154	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.212	0.226	0.170 - 0.282	Acceptable	SM 4500CN G 1997	1/23/2015	-0.420	0.218	0.0154	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.247	0.226	0.170 - 0.282	Acceptable	OIA 1677 2004	2/10/2015	1.86	0.218	0.0154	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	2.96	3.19	2.81 - 3.60	Acceptable	SM5310C 22nd ED 2011	1/21/2015	-1.15	3.22	0.229	
2040	Total Organic Carbon (TOC)	mg/L	2.92	3.19	2.55 - 3.83	Acceptable	SM5310C 22nd ED 2011	1/21/2015	-1.68	3.26	0.200	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	2.96	3.19	2.81 - 3.60	Acceptable	SM5310C 20th ED 1996	1/21/2015	-1.15	3.22	0.229	
2040	Total Organic Carbon (TOC)	mg/L	2.92	3.19	2.55 - 3.83	Acceptable	SM5310C 20th ED 1996	1/21/2015	-1.68	3.26	0.200	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	11.3	10.5	8.40 - 12.6	Acceptable	EPA 314.0 1 1999	1/15/2015	1.68	10.1	0.715	
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	10.5	10.5	8.40 - 12.6	Acceptable	EPA 331.0 1.0 2005	2/10/2015	0.559	10.1	0.715	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	57.4	54.3	46.2 - 62.4	Acceptable	EPA 200.7 4.4 1994	1/21/2015	1.38	53.2	3.02	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	53.7	54.3	46.2 - 62.4	Acceptable	SM4500SiO2 C 22nd ED 2011	1/19/2015	0.157	53.2	3.02	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	53.7	54.3	46.2 - 62.4	Acceptable	SM4500SiO2 C 20th ED 1997	1/19/2015	0.157	53.2	3.02	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	53.7	54.3	46.2 - 62.4	Acceptable	SM4500Si D 19th ED 1993	1/19/2015	0.157	53.2	3.02	
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.638	0.653	0.488 - 0.803	Acceptable	SM5540C 20th ED 1993	1/16/2015	-0.389	0.663	0.0635	
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.638	0.653	0.488 - 0.803	Acceptable	SM5540C 22nd ED 2011	1/16/2015	-0.389	0.663	0.0635	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	2.12	1.91	1.51 - 2.31	Acceptable	SM2330B 21st ED 2000	1/19/2015	1.23	1.93	0.153	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	2.12	1.91	1.51 - 2.31	Acceptable	SM2330B 20th ED 1993	1/19/2015	1.23	1.93	0.153	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	2.12	1.91	1.51 - 2.31	Acceptable	EPA 9040C 2002	1/19/2015	1.23	1.93	0.153	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	3.13	3.23	2.71 - 3.71	Acceptable	EPA 180.1 2 1993	1/20/2015	-0.0118	3.13	0.133	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	3.13	3.23	2.71 - 3.71	Acceptable	SM2130B 22nd ED 2011	1/20/2015	-0.0118	3.13	0.133	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	3.13	3.23	2.71 - 3.71	Acceptable	SM2130B 20th ED 1994	1/20/2015	-0.0118	3.13	0.133	
WS Color (cat# 859)												
1605	Color	PC units	40.0	40.0	30.0 - 50.0	Acceptable	SM2120B 22nd ED 2011	1/9/2015	0.506	37.8	4.42	
WS Color (cat# 859)												
1605	Color	PC units	40.0	40.0	30.0 - 50.0	Acceptable	SM2120B 20th ED 1993	1/9/2015	0.506	37.8	4.42	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.604	0.526	0.428 - 0.625	Acceptable	SM5910B 22nd ED 2011	1/23/2015	0.726	0.551	0.0729	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.604	0.526	0.428 - 0.625	Acceptable	SM5910B 20th ED 1994	1/23/2015	0.726	0.551	0.0729	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-222**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/30/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/30/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 4, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 6
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 2 and 5

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/30/2015	0			
2530	Fecal Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC online	1/28/2015	0			
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC online	1/30/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 4, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 6
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 2 and 5

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 4, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 6
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 2 and 5

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/30/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/30/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 4, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 6
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 2 and 5

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/30/2015	0			
2530	Fecal Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	1/28/2015	0			
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	1/30/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 4, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 6
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 2 and 5

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 4, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 6
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 2 and 5

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 8 and 10

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 8 and 10

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT online	1/20/2015	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT online	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 8 and 10

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 8 and 10

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 8 and 10

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 4	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 3 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 7
Negative (1) Coliform Organism - Proteus mirabilis, Sample 4
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 8 and 10

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 8 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 3 and 6

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 8 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 3 and 6

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 online	1/20/2015	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 online	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 8 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 3 and 6

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 8 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 3 and 6

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 8 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 3 and 6

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 7 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 8 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 5
Blank - No Organism, Samples 3 and 6

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 3, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 1 and 9

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 3, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 1 and 9

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE online	1/20/2015	0			
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE online	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 3, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 1 and 9

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 3, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 1 and 9

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 3, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 1 and 9

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	1/20/2015	0			

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 2, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 3, 7 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 1 and 9

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		83.0	48.0 - 146	Not Reported				84.2	24.5	
2530	Fecal Coliforms (MF)	CFU/100mL		83.0	8.00 - 130	Not Reported				33.2	30.4	
2525	E.coli (MF)	CFU/100mL		83.0	31.0 - 191	Not Reported				77.2	39.9	
2500	Total Coliforms (MPN)	MPN/100mL	178	158	67.5 - 238	Acceptable	SM9223 COLertQT online	1/20/2015	1.20	127	42.7	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	21.9 - 384	Not Reported				91.7	90.6	
2525	E.coli (MPN)	MPN/100mL	178	158	69.3 - 238	Acceptable	SM9223 COLertQT online	1/20/2015	1.18	128	42.1	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		83.0	48.0 - 146	Not Reported				84.2	24.5	
2530	Fecal Coliforms (MF)	CFU/100mL		83.0	8.00 - 130	Not Reported				33.2	30.4	
2525	E.coli (MF)	CFU/100mL		83.0	31.0 - 191	Not Reported				77.2	39.9	
2500	Total Coliforms (MPN)	MPN/100mL	178	158	67.5 - 238	Acceptable	SM9223 COLertQT 20th ED 1998	1/20/2015	1.20	127	42.7	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	21.9 - 384	Not Reported				91.7	90.6	
2525	E.coli (MPN)	MPN/100mL	178	158	69.3 - 238	Acceptable	SM9223 COLertQT 20th ED 1998	1/20/2015	1.18	128	42.1	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		83.0	48.0 - 146	Not Reported				84.2	24.5	
2530	Fecal Coliforms (MF)	CFU/100mL		83.0	8.00 - 130	Not Reported				33.2	30.4	
2525	E.coli (MF)	CFU/100mL		83.0	31.0 - 191	Not Reported				77.2	39.9	
2500	Total Coliforms (MPN)	MPN/100mL	85.7	158	67.5 - 238	Acceptable	SM9223 COLt18QT online	1/20/2015	-0.963	127	42.7	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	21.9 - 384	Not Reported				91.7	90.6	
2525	E.coli (MPN)	MPN/100mL	85.7	158	69.3 - 238	Acceptable	SM9223 COLt18QT online	1/20/2015	-1.01	128	42.1	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		83.0	48.0 - 146	Not Reported				84.2	24.5	
2530	Fecal Coliforms (MF)	CFU/100mL		83.0	8.00 - 130	Not Reported				33.2	30.4	
2525	E.coli (MF)	CFU/100mL		83.0	31.0 - 191	Not Reported				77.2	39.9	
2500	Total Coliforms (MPN)	MPN/100mL	85.7	158	67.5 - 238	Acceptable	SM9223 COLt18QT 20th ED 1998	1/20/2015	-0.963	127	42.7	
2530	Fecal Coliforms (MPN)	MPN/100mL		158	21.9 - 384	Not Reported				91.7	90.6	
2525	E.coli (MPN)	MPN/100mL	85.7	158	69.3 - 238	Acceptable	SM9223 COLt18QT 20th ED 1998	1/20/2015	-1.01	128	42.1	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	48.0	34.0	29.0 - 60.0	Acceptable	SM9215B PCA 21st ED 2000	1/21/2015	0.805	41.6	7.95	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		50.0	26.4 - 70.4	Not Reported				43.1	11.0	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	48.0	34.0	29.0 - 60.0	Acceptable	SM9215B PCA 20th ED 1998	1/21/2015	0.805	41.6	7.95	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		50.0	26.4 - 70.4	Not Reported				43.1	11.0	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-222**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chloral Hydrate (cat# 853)												
4460	Chloral Hydrate	µg/L	14.1	16.9	3.52 - 27.1	Acceptable	EPA 551.1 1 1992	1/17/2015	0.468	13.2	1.89	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	5.11	5.69	3.41 - 7.97	Acceptable	SM 6251 B 22nd ED 2007	1/15/2015	-1.34	6.16	0.785	
9315	Bromochloroacetic acid	µg/L	33.5	39.0	23.4 - 54.6	Acceptable	SM 6251 B 22nd ED 2007	1/15/2015	-0.660	36.8	5.03	
9336	Chloroacetic acid	µg/L	38.8	42.3	25.4 - 59.2	Acceptable	SM 6251 B 22nd ED 2007	1/15/2015	-0.869	43.0	4.80	
9357	Dibromoacetic acid	µg/L	36.5	42.3	25.4 - 59.2	Acceptable	SM 6251 B 22nd ED 2007	1/15/2015	-0.508	39.8	6.40	
9360	Dichloroacetic acid	µg/L	7.40	7.05	4.23 - 9.87	Acceptable	SM 6251 B 22nd ED 2007	1/15/2015	0.192	7.26	0.723	
9642	Trichloroacetic acid	µg/L	20.4	23.8	14.3 - 33.3	Acceptable	SM 6251 B 22nd ED 2007	1/15/2015	-0.732	23.1	3.73	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	5.11	5.69	3.41 - 7.97	Acceptable	SM 6251 B 21st ED	1/15/2015	-1.34	6.16	0.785	
9315	Bromochloroacetic acid	µg/L	33.5	39.0	23.4 - 54.6	Acceptable	SM 6251 B 21st ED	1/15/2015	-0.660	36.8	5.03	
9336	Chloroacetic acid	µg/L	38.8	42.3	25.4 - 59.2	Acceptable	SM 6251 B 21st ED	1/15/2015	-0.869	43.0	4.80	
9357	Dibromoacetic acid	µg/L	36.5	42.3	25.4 - 59.2	Acceptable	SM 6251 B 21st ED	1/15/2015	-0.508	39.8	6.40	
9360	Dichloroacetic acid	µg/L	7.40	7.05	4.23 - 9.87	Acceptable	SM 6251 B 21st ED	1/15/2015	0.192	7.26	0.723	
9642	Trichloroacetic acid	µg/L	20.4	23.8	14.3 - 33.3	Acceptable	SM 6251 B 21st ED	1/15/2015	-0.732	23.1	3.73	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	18.6	18.5	13.8 - 23.5	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.290	19.0	1.54	
4420	Tert-Butyl Alcohol	µg/L	43.5	35.3	21.0 - 49.1	Acceptable	EPA 524.2 4.1 1995	1/15/2015	1.24	34.4	7.39	
5000	tert-Butyl methyl ether (MTBE)	µg/L	12.8	12.2	9.76 - 14.6	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.0531	12.9	1.11	
9375	Di-isopropylether (DIPE)	µg/L	25.8	25.8	20.9 - 32.2	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.345	26.6	2.19	
4770	Ethyl-t-butylether (ETBE)	µg/L	28.8	27.7	21.9 - 35.7	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.296	29.4	1.87	
5175	Trichlorofluoromethane (Freon 11)	µg/L	20.9	20.6	12.4 - 28.8	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.546	22.4	2.75	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	20.8	23.5	15.7 - 31.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-1.53	24.8	2.62	
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	18.6	18.5	13.8 - 23.5	Acceptable	EPA 524.3 1 2009	2/9/2015	-0.290	19.0	1.54	
4420	Tert-Butyl Alcohol	µg/L	32.8	35.3	21.0 - 49.1	Acceptable	EPA 524.3 1 2009	1/15/2015	-0.210	34.4	7.39	
5000	tert-Butyl methyl ether (MTBE)	µg/L	13.8	12.2	9.76 - 14.6	Acceptable	EPA 524.3 1 2009	2/9/2015	0.849	12.9	1.11	
9375	Di-isopropylether (DIPE)	µg/L	28.9	25.8	20.9 - 32.2	Acceptable	EPA 524.3 1 2009	2/9/2015	1.07	26.6	2.19	
4770	Ethyl-t-butylether (ETBE)	µg/L	29.8	27.7	21.9 - 35.7	Acceptable	EPA 524.3 1 2009	2/9/2015	0.239	29.4	1.87	
5175	Trichlorofluoromethane (Freon 11)	µg/L	20.8	20.6	12.4 - 28.8	Acceptable	EPA 524.3 1 2009	2/9/2015	-0.582	22.4	2.75	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	22.2	23.5	15.7 - 31.3	Acceptable	EPA 524.3 1 2009	2/9/2015	-0.992	24.8	2.62	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	12.4	12.1	9.68 - 14.5	Acceptable	EPA 551.1 1 1992	1/15/2015	0.0680	12.3	1.02	
4400	Bromoform	µg/L	38.4	36.3	29.0 - 43.6	Acceptable	EPA 551.1 1 1992	1/15/2015	0.340	37.3	3.31	
4575	Chlorodibromomethane	µg/L	14.7	14.3	11.4 - 17.2	Acceptable	EPA 551.1 1 1992	1/15/2015	0.309	14.3	1.36	
4505	Chloroform	µg/L	26.3	25.9	20.7 - 31.1	Acceptable	EPA 551.1 1 1992	1/15/2015	-0.0216	26.3	2.10	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	12.3	12.1	9.68 - 14.5	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.0298	12.3	1.02	
4400	Bromoform	µg/L	32.7	36.3	29.0 - 43.6	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-1.38	37.3	3.31	
4575	Chlorodibromomethane	µg/L	12.2	14.3	11.4 - 17.2	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-1.53	14.3	1.36	
4505	Chloroform	µg/L	26.9	25.9	20.7 - 31.1	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.264	26.3	2.10	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	14.7	12.1	9.68 - 14.5	Not Acceptable	EPA 524.3 1 2009	2/10/2015	2.32	12.3	1.02	
4400	Bromoform	µg/L	36.6	36.3	29.0 - 43.6	Acceptable	EPA 524.3 1 2009	2/10/2015	-0.203	37.3	3.31	
4575	Chlorodibromomethane	µg/L	15.5	14.3	11.4 - 17.2	Acceptable	EPA 524.3 1 2009	2/10/2015	0.898	14.3	1.36	
4505	Chloroform	µg/L	31.5	25.9	20.7 - 31.1	Not Acceptable	EPA 524.3 1 2009	2/10/2015	2.46	26.3	2.10	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	7.29	7.06	4.24 - 9.88	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.878	6.80	0.560	
4455	Carbon tetrachloride	µg/L	5.04	4.90	2.94 - 6.86	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.324	4.88	0.502	
4475	Chlorobenzene	µg/L	7.31	7.33	4.40 - 10.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.0415	7.28	0.667	
4610	1,2-Dichlorobenzene	µg/L	9.63	8.85	5.31 - 12.4	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.04	8.69	0.902	
4620	1,4-Dichlorobenzene	µg/L	7.10	7.35	4.41 - 10.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.00937	7.11	0.774	
4635	1,2-Dichloroethane	µg/L	15.7	15.0	12.0 - 18.0	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.542	15.0	1.37	
4640	1,1-Dichloroethylene	µg/L	9.75	9.53	5.72 - 13.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.377	10.2	1.21	
4645	cis-1,2-Dichloroethylene	µg/L	10.1	9.23	5.54 - 12.9	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.10	9.04	0.972	
4700	trans-1,2-Dichloroethylene	µg/L	9.01	8.04	4.82 - 11.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.966	8.32	0.710	
4655	1,2-Dichloropropane	µg/L	4.83	4.87	2.92 - 6.82	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.0146	4.82	0.488	
4765	Ethylbenzene	µg/L	5.04	4.95	2.97 - 6.93	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.187	4.96	0.453	
4975	Methylene chloride (Dichloromethane)	µg/L	13.9	13.6	10.9 - 16.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.01	12.5	1.39	
5100	Styrene	µg/L	10.8	9.47	5.68 - 13.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.54	9.39	0.918	
5115	Tetrachloroethylene	µg/L	9.07	9.51	5.71 - 13.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.101	8.96	1.09	
5140	Toluene	µg/L	14.6	14.7	11.8 - 17.6	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.0573	14.7	1.14	
5155	1,2,4-Trichlorobenzene	µg/L	8.83	7.89	4.73 - 11.0	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.32	7.46	1.04	
5160	1,1,1-Trichloroethane	µg/L	13.3	13.3	10.6 - 16.0	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.300	13.0	1.05	
5165	1,1,2-Trichloroethane	µg/L	5.74	5.75	3.45 - 8.05	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.0561	5.71	0.524	
5170	Trichloroethylene	µg/L	5.45	5.36	3.22 - 7.50	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.567	5.19	0.465	
5235	Vinyl chloride	µg/L	3.94	4.00	2.40 - 5.60	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.159	3.84	0.639	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	41.8	37.3	29.8 - 44.8	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.26	37.5	3.41	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	7.20	7.06	4.24 - 9.88	Acceptable	EPA 524.3 1 2009	2/10/2015	0.717	6.80	0.560	
4455	Carbon tetrachloride	µg/L	5.74	4.90	2.94 - 6.86	Acceptable	EPA 524.3 1 2009	2/10/2015	1.72	4.88	0.502	
4475	Chlorobenzene	µg/L	8.40	7.33	4.40 - 10.3	Acceptable	EPA 524.3 1 2009	2/10/2015	1.68	7.28	0.667	
4610	1,2-Dichlorobenzene	µg/L	10.6	8.85	5.31 - 12.4	Acceptable	EPA 524.3 1 2009	2/10/2015	2.11	8.69	0.902	
4620	1,4-Dichlorobenzene	µg/L	8.10	7.35	4.41 - 10.3	Acceptable	EPA 524.3 1 2009	2/10/2015	1.28	7.11	0.774	
4635	1,2-Dichloroethane	µg/L	18.0	15.0	12.0 - 18.0	Acceptable	EPA 524.3 1 2009	2/10/2015	2.22	15.0	1.37	
4640	1,1-Dichloroethylene	µg/L	11.4	9.53	5.72 - 13.3	Acceptable	EPA 524.3 1 2009	2/10/2015	0.982	10.2	1.21	
4645	cis-1,2-Dichloroethylene	µg/L	10.0	9.23	5.54 - 12.9	Acceptable	EPA 524.3 1 2009	2/10/2015	0.992	9.04	0.972	
4700	trans-1,2-Dichloroethylene	µg/L	9.24	8.04	4.82 - 11.3	Acceptable	EPA 524.3 1 2009	2/10/2015	1.29	8.32	0.710	
4655	1,2-Dichloropropane	µg/L	5.48	4.87	2.92 - 6.82	Acceptable	EPA 524.3 1 2009	2/10/2015	1.35	4.82	0.488	
4765	Ethylbenzene	µg/L	5.37	4.95	2.97 - 6.93	Acceptable	EPA 524.3 1 2009	2/10/2015	0.916	4.96	0.453	
4975	Methylene chloride (Dichloromethane)	µg/L	15.7	13.6	10.9 - 16.3	Acceptable	EPA 524.3 1 2009	2/10/2015	2.31	12.5	1.39	
5100	Styrene	µg/L	11.4	9.47	5.68 - 13.3	Acceptable	EPA 524.3 1 2009	2/10/2015	2.19	9.39	0.918	
5115	Tetrachloroethylene	µg/L	10.4	9.51	5.71 - 13.3	Acceptable	EPA 524.3 1 2009	2/10/2015	1.32	8.96	1.09	
5140	Toluene	µg/L	15.9	14.7	11.8 - 17.6	Acceptable	EPA 524.3 1 2009	2/10/2015	1.08	14.7	1.14	
5155	1,2,4-Trichlorobenzene	µg/L	9.09	7.89	4.73 - 11.0	Acceptable	EPA 524.3 1 2009	2/10/2015	1.57	7.46	1.04	
5160	1,1,1-Trichloroethane	µg/L	14.9	13.3	10.6 - 16.0	Acceptable	EPA 524.3 1 2009	2/10/2015	1.82	13.0	1.05	
5165	1,1,2-Trichloroethane	µg/L	6.44	5.75	3.45 - 8.05	Acceptable	EPA 524.3 1 2009	2/10/2015	1.39	5.71	0.524	
5170	Trichloroethylene	µg/L	5.71	5.36	3.22 - 7.50	Acceptable	EPA 524.3 1 2009	2/10/2015	1.13	5.19	0.465	
5235	Vinyl chloride	µg/L	4.13	4.00	2.40 - 5.60	Acceptable	EPA 524.3 1 2009	2/10/2015	0.457	3.84	0.639	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	43.5	37.3	29.8 - 44.8	Acceptable	EPA 524.3 1 2009	2/10/2015	1.76	37.5	3.41	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	11.0	10.9	8.72 - 13.1	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.239	10.8	0.901	
4390	Bromochloromethane	µg/L	6.55	6.07	3.64 - 8.50	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.786	6.07	0.615	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
5000	tert-Butyl methyl ether (MTBE)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
4435	n-Butylbenzene	µg/L	6.20	6.08	3.65 - 8.51	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.766	5.80	0.527	
4440	sec-Butylbenzene	µg/L	17.7	14.9	11.9 - 17.9	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.75	15.2	1.45	
4445	tert-Butylbenzene	µg/L	21.9	18.0	14.4 - 21.6	Not Acceptable	EPA 524.2 4.1 1995	2/10/2015	2.10	18.2	1.77	
4485	Chloroethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
4960	Chloromethane	µg/L	18.8	16.0	9.60 - 22.4	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.964	16.1	2.81	
4535	2-Chlorotoluene	µg/L	10.2	9.71	5.83 - 13.6	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.450	9.79	0.921	
4540	4-Chlorotoluene	µg/L	12.7	11.5	9.20 - 13.8	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.04	11.7	0.924	
4595	Dibromomethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
4615	1,3-Dichlorobenzene	µg/L	15.4	14.6	11.7 - 17.5	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.745	14.7	1.01	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
4630	1,1-Dichloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
4660	1,3-Dichloropropane	µg/L	14.3	14.0	11.2 - 16.8	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.170	14.1	1.05	
4665	2,2-Dichloropropane	µg/L	12.6	14.4	11.5 - 17.3	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.333	13.2	1.92	
4670	1,1-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
4680	cis-1,3-Dichloropropene	µg/L	8.47	8.72	5.23 - 12.2	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.296	8.70	0.766	
4685	trans-1,3-Dichloropropene	µg/L	15.4	17.9	14.3 - 21.5	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.537	16.4	1.88	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	14.7	12.9	7.74 - 18.1	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.516	13.8	1.70	
4835	Hexachlorobutadiene	µg/L	9.89	9.74	5.84 - 13.6	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.232	9.58	1.32	
4900	Isopropylbenzene	µg/L	17.3	15.5	12.4 - 18.6	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.942	15.8	1.59	
4910	4-Isopropyltoluene	µg/L	6.01	5.47	3.28 - 7.66	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.15	5.40	0.534	
5005	Naphthalene	µg/L	17.9	16.0	11.2 - 20.8	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.31	15.3	2.02	
5090	n-Propylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
5105	1,1,1,2-Tetrachloroethane	µg/L	8.72	9.26	5.56 - 13.0	Acceptable	EPA 524.2 4.1 1995	2/10/2015	-0.582	9.13	0.705	
5110	1,1,2,2-Tetrachloroethane	µg/L	7.15	6.94	4.16 - 9.72	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.520	6.81	0.645	
5150	1,2,3-Trichlorobenzene	µg/L	5.56	5.30	3.18 - 7.42	Acceptable	EPA 524.2 4.1 1995	2/10/2015	0.532	5.25	0.590	
5180	1,2,3-Trichloropropane (TCP)	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	2/10/2015				
5210	1,2,4-Trimethylbenzene	µg/L	9.67	8.33	5.00 - 11.7	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.42	8.65	0.716	
5215	1,3,5-Trimethylbenzene	µg/L	17.3	15.0	12.0 - 18.0	Acceptable	EPA 524.2 4.1 1995	2/10/2015	1.65	15.0	1.37	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	11.1	10.9	8.72 - 13.1	Acceptable	EPA 524.3 1 2009	2/10/2015	0.350	10.8	0.901	
4390	Bromochloromethane	µg/L	6.86	6.07	3.64 - 8.50	Acceptable	EPA 524.3 1 2009	2/10/2015	1.29	6.07	0.615	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/10/2015				
5000	tert-Butyl methyl ether (MTBE)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/10/2015				
4435	n-Butylbenzene	µg/L	5.76	6.08	3.65 - 8.51	Acceptable	EPA 524.3 1 2009	2/10/2015	-0.0694	5.80	0.527	
4440	sec-Butylbenzene	µg/L	15.1	14.9	11.9 - 17.9	Acceptable	EPA 524.3 1 2009	2/10/2015	-0.0392	15.2	1.45	
4445	tert-Butylbenzene	µg/L	19.0	18.0	14.4 - 21.6	Acceptable	EPA 524.3 1 2009	2/10/2015	0.467	18.2	1.77	
4485	Chloroethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/10/2015				
4960	Chloromethane	µg/L	21.1	16.0	9.60 - 22.4	Acceptable	EPA 524.3 1 2009	2/10/2015	1.78	16.1	2.81	
4535	2-Chlorotoluene	µg/L	9.13	9.71	5.83 - 13.6	Acceptable	EPA 524.3 1 2009	2/10/2015	-0.712	9.79	0.921	
4540	4-Chlorotoluene	µg/L	11.5	11.5	9.20 - 13.8	Acceptable	EPA 524.3 1 2009	2/10/2015	-0.261	11.7	0.924	
4595	Dibromomethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/10/2015				
4615	1,3-Dichlorobenzene	µg/L	15.1	14.6	11.7 - 17.5	Acceptable	EPA 524.3 1 2009	2/10/2015	0.447	14.7	1.01	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	2/10/2015				
4630	1,1-Dichloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/10/2015				
4660	1,3-Dichloropropane	µg/L	15.8	14.0	11.2 - 16.8	Acceptable	EPA 524.3 1 2009	2/10/2015	1.60	14.1	1.05	
4665	2,2-Dichloropropane	µg/L	14.1	14.4	11.5 - 17.3	Acceptable	EPA 524.3 1 2009	2/10/2015	0.450	13.2	1.92	
4670	1,1-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/10/2015				
4680	cis-1,3-Dichloropropene	µg/L	9.46	8.72	5.23 - 12.2	Acceptable	EPA 524.3 1 2009	2/10/2015	0.997	8.70	0.766	
4685	trans-1,3-Dichloropropene	µg/L	17.3	17.9	14.3 - 21.5	Acceptable	EPA 524.3 1 2009	2/10/2015	0.471	16.4	1.88	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	15.7	12.9	7.74 - 18.1	Acceptable	EPA 524.3 1 2009	2/10/2015	1.10	13.8	1.70	
4835	Hexachlorobutadiene	µg/L	10.3	9.74	5.84 - 13.6	Acceptable	EPA 524.3 1 2009	2/10/2015	0.542	9.58	1.32	
4900	Isopropylbenzene	µg/L	16.5	15.5	12.4 - 18.6	Acceptable	EPA 524.3 1 2009	2/10/2015	0.439	15.8	1.59	
4910	4-Isopropyltoluene	µg/L	5.14	5.47	3.28 - 7.66	Acceptable	EPA 524.3 1 2009	2/10/2015	-0.484	5.40	0.534	
5005	Naphthalene	µg/L	17.1	16.0	11.2 - 20.8	Acceptable	EPA 524.3 1 2009	2/10/2015	0.914	15.3	2.02	
5090	n-Propylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/10/2015				
5105	1,1,1,2-Tetrachloroethane	µg/L	9.86	9.26	5.56 - 13.0	Acceptable	EPA 524.3 1 2009	2/10/2015	1.04	9.13	0.705	
5110	1,1,2,2-Tetrachloroethane	µg/L	7.71	6.94	4.16 - 9.72	Acceptable	EPA 524.3 1 2009	2/10/2015	1.39	6.81	0.645	
5150	1,2,3-Trichlorobenzene	µg/L	5.67	5.30	3.18 - 7.42	Acceptable	EPA 524.3 1 2009	2/10/2015	0.719	5.25	0.590	
5180	1,2,3-Trichloropropane (TCP)	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	2/10/2015				
5210	1,2,4-Trimethylbenzene	µg/L	9.03	8.33	5.00 - 11.7	Acceptable	EPA 524.3 1 2009	2/10/2015	0.530	8.65	0.716	
5215	1,3,5-Trimethylbenzene	µg/L	14.9	15.0	12.0 - 18.0	Acceptable	EPA 524.3 1 2009	2/10/2015	-0.103	15.0	1.37	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	14.0	14.8	8.14 - 21.5	Acceptable	EPA 505 2.1 1995	1/14/2015	0.0216	13.9	2.43	
7025	Aldrin	µg/L	1.60	1.41	0.632 - 1.80	Acceptable	EPA 505 2.1 1995	1/14/2015	1.28	1.23	0.286	
7065	Atrazine	µg/L		12.4	6.82 - 18.0	Not Reported				10.2	2.03	
7120	gamma-BHC (Lindane)	µg/L	0.850	0.855	0.470 - 1.24	Acceptable	EPA 505 2.1 1995	1/14/2015	-0.434	0.894	0.101	
7130	Bromacil	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7160	Butachlor	µg/L		16.1	8.86 - 23.3	Not Reported				16.1	3.08	
7410	Diazinon	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7470	Dieldrin	µg/L	0.506	0.532	0.293 - 0.771	Acceptable	EPA 505 2.1 1995	1/14/2015	-0.901	0.582	0.0846	
7540	Endrin	µg/L	1.82	1.95	1.36 - 2.54	Acceptable	EPA 505 2.1 1995	1/14/2015	-0.560	2.01	0.339	
7685	Heptachlor	µg/L	2.16	2.10	1.16 - 3.04	Acceptable	EPA 505 2.1 1995	1/14/2015	0.371	2.05	0.308	
7690	Heptachlor epoxide (beta)	µg/L	1.86	1.86	1.02 - 2.70	Acceptable	EPA 505 2.1 1995	1/14/2015	-0.298	1.93	0.239	
6275	Hexachlorobenzene	µg/L		0.703	0.327 - 0.910	Not Reported				0.676	0.0848	
6285	Hexachlorocyclopentadiene	µg/L		9.39	2.76 - 13.4	Not Reported				9.20	2.62	
7810	Methoxychlor	µg/L	16.7	17.5	9.62 - 25.4	Acceptable	EPA 505 2.1 1995	1/14/2015	-0.0102	16.7	2.85	
7835	Metolachlor	µg/L		16.3	8.96 - 23.6	Not Reported				16.1	2.52	
7845	Metribuzin	µg/L		8.72	4.36 - 13.1	Not Reported				7.95	2.19	
7875	Molinate (Ordram)	µg/L		19.5	11.3 - 26.9	Not Reported				19.8	2.39	
8035	Prometon	µg/L		17.5	5.34 - 24.3	Not Reported				13.5	5.30	
8045	Propachlor	µg/L		1.51	0.830 - 2.19	Not Reported				1.61	0.226	
8125	Simazine	µg/L		19.3	10.6 - 28.0	Not Reported				18.3	4.28	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L		< 2.00	0.00 - 2.00	Not Reported						
8295	Trifluralin	µg/L		4.24	2.33 - 6.15	Not Reported				4.12	1.04	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	14.0	14.8	8.14 - 21.5	Acceptable	EPA 525.2 2 1995	1/26/2015	0.0216	13.9	2.43	
7025	Aldrin	µg/L	1.23	1.41	0.632 - 1.80	Acceptable	EPA 525.2 2 1995	1/26/2015	-0.0118	1.23	0.286	
7065	Atrazine	µg/L	10.1	12.4	6.82 - 18.0	Acceptable	EPA 525.2 2 1995	1/26/2015	-0.0287	10.2	2.03	
7120	gamma-BHC (Lindane)	µg/L	1.00	0.855	0.470 - 1.24	Acceptable	EPA 525.2 2 1995	1/26/2015	1.05	0.894	0.101	
7130	Bromacil	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	1/26/2015				
7160	Butachlor	µg/L	17.4	16.1	8.86 - 23.3	Acceptable	EPA 525.2 2 1995	1/26/2015	0.421	16.1	3.08	
7410	Diazinon	µg/L	< 0.10	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	1/26/2015				
7470	Dieldrin	µg/L	0.595	0.532	0.293 - 0.771	Acceptable	EPA 525.2 2 1995	1/26/2015	0.151	0.582	0.0846	
7540	Endrin	µg/L	2.03	1.95	1.36 - 2.54	Acceptable	EPA 525.2 2 1995	1/26/2015	0.0608	2.01	0.339	
7685	Heptachlor	µg/L	2.27	2.10	1.16 - 3.04	Acceptable	EPA 525.2 2 1995	1/26/2015	0.729	2.05	0.308	
7690	Heptachlor epoxide (beta)	µg/L	2.03	1.86	1.02 - 2.70	Acceptable	EPA 525.2 2 1995	1/26/2015	0.414	1.93	0.239	
6275	Hexachlorobenzene	µg/L	0.651	0.703	0.327 - 0.910	Acceptable	EPA 525.2 2 1995	1/26/2015	-0.295	0.676	0.0848	
6285	Hexachlorocyclopentadiene	µg/L	11.1	9.39	2.76 - 13.4	Acceptable	EPA 525.2 2 1995	1/26/2015	0.728	9.20	2.62	
7810	Methoxychlor	µg/L	18.1	17.5	9.62 - 25.4	Acceptable	EPA 525.2 2 1995	1/26/2015	0.480	16.7	2.85	
7835	Metolachlor	µg/L	16.2	16.3	8.96 - 23.6	Acceptable	EPA 525.2 2 1995	1/26/2015	0.0420	16.1	2.52	
7845	Metribuzin	µg/L	9.00	8.72	4.36 - 13.1	Acceptable	EPA 525.2 2 1995	1/26/2015	0.481	7.95	2.19	
7875	Molinate (Ordram)	µg/L	17.7	19.5	11.3 - 26.9	Acceptable	EPA 525.2 2 1995	1/26/2015	-0.874	19.8	2.39	
8035	Prometon	µg/L		17.5	5.34 - 24.3	Not Reported				13.5	5.30	
8045	Propachlor	µg/L	1.61	1.51	0.830 - 2.19	Acceptable	EPA 525.2 2 1995	1/26/2015	-0.0158	1.61	0.226	
8125	Simazine	µg/L	16.4	19.3	10.6 - 28.0	Acceptable	EPA 525.2 2 1995	1/26/2015	-0.439	18.3	4.28	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	1/26/2015				
8295	Trifluralin	µg/L	4.20	4.24	2.33 - 6.15	Acceptable	EPA 525.2 2 1995	1/26/2015	0.0736	4.12	1.04	
WS Carbamate/Carbamoxyloxime Pesticides (cat# 846)												
7010	Aldicarb	µg/L	48.5	52.1	39.1 - 65.1	Acceptable	EPA 531.2 1 2001	1/13/2015	0.313	46.8	5.34	
7015	Aldicarb sulfone	µg/L	52.7	51.3	38.5 - 64.1	Acceptable	EPA 531.2 1 2001	1/13/2015	0.713	49.1	5.10	
7020	Aldicarb sulfoxide	µg/L	38.1	40.7	30.5 - 50.9	Acceptable	EPA 531.2 1 2001	1/13/2015	-0.881	41.0	3.27	
8080	Baygon	µg/L	69.4	70.6	57.4 - 83.8	Acceptable	EPA 531.2 1 2001	1/13/2015	-0.402	70.6	3.05	
7195	Carbaryl	µg/L	27.7	28.2	21.2 - 35.2	Acceptable	EPA 531.2 1 2001	1/13/2015	0.146	27.4	2.10	
7205	Carbofuran	µg/L	27.5	29.4	16.2 - 42.6	Acceptable	EPA 531.2 1 2001	1/13/2015	-0.121	27.8	2.43	
7710	3-Hydroxycarbofuran	µg/L	16.0	16.3	13.0 - 19.6	Acceptable	EPA 531.2 1 2001	1/13/2015	-0.102	16.1	1.09	
7800	Methiocarb	µg/L	87.0	88.5	69.1 - 106	Acceptable	EPA 531.2 1 2001	1/13/2015	1.26	81.0	4.77	
7805	Methomyl	µg/L	57.2	54.3	43.4 - 65.2	Acceptable	EPA 531.2 1 2001	1/13/2015	0.526	55.4	3.42	
7940	Oxamyl (vydate)	µg/L	22.8	22.8	17.1 - 28.5	Acceptable	EPA 531.2 1 2001	1/13/2015	-0.0490	22.9	2.48	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	7.61	7.44	4.09 - 10.8	Acceptable	EPA 505 2.1 1995	1/13/2015	0.435	7.07	1.24	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	7.92	7.44	4.09 - 10.8	Acceptable	EPA 525.2 2 1995	1/26/2015	0.684	7.07	1.24	
WS Toxaphene (cat# 844)												
8250	Toxaphene	µg/L	8.89	8.86	4.87 - 12.8	Acceptable	EPA 505 2.1 1995	1/13/2015	0.582	7.98	1.57	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	0.168	0.155	0.0930 - 0.217	Acceptable	EPA 504.1 1.1 1995	1/15/2015	0.231	0.163	0.0224	
4585	Ethylene Dibromide (EDB)	µg/L	1.58	1.57	0.942 - 2.20	Acceptable	EPA 504.1 1.1 1995	1/15/2015	0.577	1.49	0.152	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.78	1.67	1.00 - 2.34	Acceptable	EPA 504.1 1.1 1995	1/15/2015	0.478	1.69	0.187	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	0.154	0.155	0.0930 - 0.217	Acceptable	EPA 551.1 1 1992	1/16/2015	-0.394	0.163	0.0224	
4585	Ethylene Dibromide (EDB)	µg/L	1.37	1.57	0.942 - 2.20	Acceptable	EPA 551.1 1 1992	1/16/2015	-0.804	1.49	0.152	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.67	1.00 - 2.34	Not Reported				1.69	0.187	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L		0.155	0.0930 - 0.217	Not Reported				0.163	0.0224	
4585	Ethylene Dibromide (EDB)	µg/L		1.57	0.942 - 2.20	Not Reported				1.49	0.152	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.75	1.67	1.00 - 2.34	Acceptable	EPA 524.2 4.1 1995	1/9/2015	0.318	1.69	0.187	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	0.154	0.155	0.0930 - 0.217	Acceptable	EPA 8011 1994	1/15/2015	-0.394	0.163	0.0224	
4585	Ethylene Dibromide (EDB)	µg/L	1.48	1.57	0.942 - 2.20	Acceptable	EPA 8011 1994	1/15/2015	-0.0803	1.49	0.152	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.67	1.00 - 2.34	Not Reported				1.69	0.187	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	63.7	78.8	45.4 - 93.8	Acceptable	EPA 1613 1994	1/16/2015	-0.883	72.8	10.3	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	63.7	78.8	45.4 - 93.8	Acceptable	EPA 1613B Appendix A 1997	1/16/2015	-0.883	72.8	10.3	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS PCBs as Decachlorobiphenyl (cat# 839)												
8880	Aroclor 1016	µg/L	1.47	2.09	1.33 - 2.32	Acceptable	EPA 505 2.1 1995	1/14/2015	-1.30	1.99	0.399	
8885	Aroclor 1221	µg/L	< 0.10	< 0.190	0.00 - 0.190	Acceptable	EPA 505 2.1 1995	1/14/2015				
8890	Aroclor 1232	µg/L	< 0.10	< 0.230	0.00 - 0.230	Acceptable	EPA 505 2.1 1995	1/14/2015				
8895	Aroclor 1242	µg/L	< 0.10	< 0.260	0.00 - 0.260	Acceptable	EPA 505 2.1 1995	1/14/2015				
8900	Aroclor 1248	µg/L	< 0.10	< 0.300	0.00 - 0.300	Acceptable	EPA 505 2.1 1995	1/14/2015				
8905	Aroclor 1254	µg/L	< 0.10	< 0.330	0.00 - 0.330	Acceptable	EPA 505 2.1 1995	1/14/2015				
8910	Aroclor 1260	µg/L	< 0.10	< 0.360	0.00 - 0.360	Acceptable	EPA 505 2.1 1995	1/14/2015				
8872	PCB Aroclor Identity	Identity	1016	1016		Acceptable	EPA 505 2.1 1995	1/14/2015	0			
9105	PCB as Decachlorobiphenyl	µg/L		4.02	0.402 - 8.04	Not Reported				3.36	1.34	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848)												
5500	Acenaphthene	µg/L	6.24	6.24	3.11 - 7.82	Acceptable	EPA 525.2 2 1995	1/26/2015	0.964	5.97	0.284	
5505	Acenaphthylene	µg/L	5.36	5.51	2.60 - 7.40	Acceptable	EPA 525.2 2 1995	1/26/2015	-0.556	5.56	0.356	
5555	Anthracene	µg/L	3.26	3.57	1.55 - 4.63	Acceptable	EPA 525.2 2 1995	1/26/2015	0.166	3.17	0.524	
5575	Benzo(a)anthracene	µg/L	6.50	6.96	3.83 - 8.82	Acceptable	EPA 525.2 2 1995	1/26/2015	0.0273	6.46	1.54	
5585	Benzo(b)fluoranthene	µg/L	7.25	6.90	3.68 - 9.50	Acceptable	EPA 525.2 2 1995	1/26/2015	0.00638	7.24	0.871	
5600	Benzo(k)fluoranthene	µg/L	3.92	3.46	1.88 - 4.68	Acceptable	EPA 525.2 2 1995	1/26/2015	0.387	3.60	0.822	
5590	Benzo(g,h,i)perylene	µg/L	4.40	3.71	1.68 - 5.30	Acceptable	EPA 525.2 2 1995	1/26/2015	0.425	3.97	1.00	
5580	Benzo(a)pyrene	µg/L	1.75	1.88	0.782 - 2.40	Acceptable	EPA 525.2 2 1995	1/26/2015	0.374	1.59	0.438	
5670	Butylbenzylphthalate	µg/L	51.3	43.0	23.4 - 62.4	Acceptable	EPA 525.2 2 1995	1/26/2015	0.650	44.1	11.0	
5855	Chrysene	µg/L	6.70	6.44	3.68 - 8.27	Acceptable	EPA 525.2 2 1995	1/26/2015	1.48	6.30	0.266	
5895	Dibenz(a,h)anthracene	µg/L	11.8	9.46	4.39 - 13.6	Acceptable	EPA 525.2 2 1995	1/26/2015	0.529	10.2	2.94	
6070	Diethylphthalate	µg/L	23.8	21.4	11.5 - 30.3	Acceptable	EPA 525.2 2 1995	1/26/2015	0.577	21.7	3.67	
6135	Dimethylphthalate	µg/L	42.1	37.7	18.1 - 51.8	Acceptable	EPA 525.2 2 1995	1/26/2015	0.998	36.0	6.11	
5925	Di-n-butylphthalate	µg/L	51.7	46.2	25.2 - 66.4	Acceptable	EPA 525.2 2 1995	1/26/2015	0.615	46.4	8.64	
6200	Di-n-octylphthalate	µg/L	47.5	45.1	22.4 - 63.0	Acceptable	EPA 525.2 2 1995	1/26/2015	0.521	41.9	10.7	
6062	bis(2-Ethylhexyl)adipate	µg/L	25.5	24.2	14.4 - 32.3	Acceptable	EPA 525.2 2 1995	1/26/2015	0.465	22.9	5.50	
6065	bis(2-Ethylhexyl)phthalate	µg/L	35.6	29.9	15.1 - 42.6	Acceptable	EPA 525.2 2 1995	1/26/2015	0.911	29.1	7.10	
6265	Fluoranthene	µg/L	2.01	1.94	0.935 - 2.62	Acceptable	EPA 525.2 2 1995	1/26/2015	0.235	1.93	0.327	
6270	Fluorene	µg/L	9.19	8.99	5.24 - 11.5	Acceptable	EPA 525.2 2 1995	1/26/2015	0.301	8.80	1.28	
6315	Indeno(1,2,3-cd)pyrene	µg/L	9.22	7.40	3.22 - 10.6	Acceptable	EPA 525.2 2 1995	1/26/2015	0.650	8.41	1.24	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848) (Continued)												
5005	Naphthalene	µg/L	1.88	1.88	0.761 - 2.40	Acceptable	EPA 525.2 2 1995	1/26/2015	0.700	1.71	0.241	
6615	Phenanthrene	µg/L	6.34	6.20	3.94 - 7.81	Acceptable	EPA 525.2 2 1995	1/26/2015	0.436	6.00	0.786	
6665	Pyrene	µg/L	3.27	2.82	1.68 - 3.65	Acceptable	EPA 525.2 2 1995	1/26/2015	0.204	3.17	0.476	
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L	30.6	33.3	16.6 - 50.0	Acceptable	EPA 515.4 1 2000	1/14/2015	-0.727	31.8	1.67	
8530	Bentazon	µg/L	72.5	79.8	41.3 - 109	Acceptable	EPA 515.4 1 2000	1/14/2015	-1.31	77.8	4.02	
8540	Chloramben	µg/L		39.8	10.7 - 54.0	Not Reported				39.8	10.8	
8545	2,4-D	µg/L	33.0	36.1	18.0 - 54.2	Acceptable	EPA 515.4 1 2000	1/14/2015	-0.0628	33.3	5.31	
8550	Dacthal diacid (DCPA)	µg/L	48.9	40.1	14.9 - 65.0	Acceptable	EPA 515.4 1 2000	1/14/2015	1.28	41.0	6.18	
8555	Dalapon	µg/L	85.7	91.5	45.8 - 137	Acceptable	EPA 515.4 1 2000	1/14/2015	0.0361	85.1	17.3	
8560	2,4-DB	µg/L	48.9	52.9	26.4 - 79.4	Acceptable	EPA 515.4 1 2000	1/14/2015	-0.0421	49.1	5.28	
8595	Dicamba	µg/L	32.6	34.3	17.2 - 51.4	Acceptable	EPA 515.4 1 2000	1/14/2015	0.113	32.1	4.30	
8600	3,5-Dichlorobenzoic acid	µg/L	18.5	18.7	8.91 - 24.7	Acceptable	EPA 515.4 1 2000	1/14/2015	1.16	17.4	0.904	
8605	Dichlorprop	µg/L	22.2	20.4	9.35 - 28.1	Acceptable	EPA 515.4 1 2000	1/14/2015	1.69	19.8	1.39	
8620	Dinoseb	µg/L	19.8	20.7	7.51 - 29.3	Acceptable	EPA 515.4 1 2000	1/14/2015	-0.165	20.4	3.36	
6500	4-Nitrophenol	µg/L		81.4	8.14 - 110	Not Reported				59.3	0.00	
6605	Pentachlorophenol	µg/L	20.8	21.3	10.6 - 32.0	Acceptable	EPA 515.4 1 2000	1/14/2015	0.418	19.6	2.97	
8645	Picloram	µg/L	20.6	21.9	11.0 - 32.8	Acceptable	EPA 515.4 1 2000	1/14/2015	-0.119	21.2	5.24	
8655	2,4,5-T	µg/L	28.4	28.5	14.2 - 42.8	Acceptable	EPA 515.4 1 2000	1/14/2015	0.602	25.9	4.23	
8650	2,4,5-TP (Silvex)	µg/L	17.2	19.2	9.60 - 28.8	Acceptable	EPA 515.4 1 2000	1/14/2015	0.0915	16.9	3.23	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L		33.3	16.6 - 50.0	Not Reported				31.8	1.67	
8530	Bentazon	µg/L		79.8	41.3 - 109	Not Reported				77.8	4.02	
8540	Chloramben	µg/L		39.8	10.7 - 54.0	Not Reported				39.8	10.8	
8545	2,4-D	µg/L		36.1	18.0 - 54.2	Not Reported				33.3	5.31	
8550	Dacthal diacid (DCPA)	µg/L		40.1	14.9 - 65.0	Not Reported				41.0	6.18	
8555	Dalapon	µg/L		91.5	45.8 - 137	Not Reported				85.1	17.3	
8560	2,4-DB	µg/L		52.9	26.4 - 79.4	Not Reported				49.1	5.28	
8595	Dicamba	µg/L		34.3	17.2 - 51.4	Not Reported				32.1	4.30	
8600	3,5-Dichlorobenzoic acid	µg/L		18.7	8.91 - 24.7	Not Reported				17.4	0.904	
8605	Dichlorprop	µg/L		20.4	9.35 - 28.1	Not Reported				19.8	1.39	
8620	Dinoseb	µg/L		20.7	7.51 - 29.3	Not Reported				20.4	3.36	
6500	4-Nitrophenol	µg/L		81.4	8.14 - 110	Not Reported				59.3	0.00	
6605	Pentachlorophenol	µg/L	26.6	21.3	10.6 - 32.0	Acceptable	EPA 525.2 2 1995	1/26/2015	2.37	19.6	2.97	
8645	Picloram	µg/L		21.9	11.0 - 32.8	Not Reported				21.2	5.24	
8655	2,4,5-T	µg/L		28.5	14.2 - 42.8	Not Reported				25.9	4.23	
8650	2,4,5-TP (Silvex)	µg/L		19.2	9.60 - 28.8	Not Reported				16.9	3.23	
WS Regulated Semivolatiles #2 Herbicides (cat# 849)												
9390	Diquat	µg/L	11.7	26.5	13.2 - 39.8	Not Acceptable	EPA 549.2 1 1997	1/16/2015	-1.75	20.5	5.04	
7525	Endothall	µg/L	250	261	130 - 392	Acceptable	EPA 548.1 1 1992	1/19/2015	-0.0524	254	76.5	
9411	Glyphosate	µg/L	418	381	305 - 457	Acceptable	EPA 547 1990	1/13/2015	0.825	386	39.0	
9528	Paraquat	µg/L	37.8	81.6	35.8 - 102	Acceptable	EPA 549.2 1 1997	1/16/2015	-1.35	56.2	13.7	

WS-222 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 02/23/15
Study Dates: 01/05/15 - 02/19/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles #2 Herbicides (cat# 849)												
9390	Diquat	µg/L		26.5	13.2 - 39.8	Not Reported				20.5	5.04	
7525	Endothall	µg/L	273	261	130 - 392	Acceptable	EPA 548.1 LC-MS-MS	2/19/2015	0.248	254	76.5	
9411	Glyphosate	µg/L		381	305 - 457	Not Reported				386	39.0	
9528	Paraquat	µg/L		81.6	35.8 - 102	Not Reported				56.2	13.7	

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

031315G1 Final Report

QuiK™ Response Proficiency Testing

Project # :031315G1

031315G1 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.

ERA
A Waters Company

2009 TNI Evaluation Report

Project Number: **031315G1**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

031315G1 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Halomethanes (THMs) (cat# 702) Study Dates: 03/13/15 - 04/13/15												
4395	Bromodichloromethane	µg/L	7.58	7.70	6.16 - 9.24	Acceptable	EPA 524.3 1 2009	3/25/2015	-0.414	7.83	0.600	
4400	Bromoform	µg/L	20.7	21.7	17.4 - 26.0	Acceptable	EPA 524.3 1 2009	3/25/2015	0.179	20.1	3.48	
4575	Chlorodibromomethane	µg/L	19.9	21.5	17.2 - 25.8	Acceptable	EPA 524.3 1 2009	3/25/2015	-0.900	21.4	1.68	
4505	Chloroform	µg/L	18.2	18.1	14.5 - 21.7	Acceptable	EPA 524.3 1 2009	3/25/2015	-0.674	19.1	1.37	

031315G1 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 683) Study Dates: 03/13/15 - 04/13/15												
4385	Bromobenzene	µg/L		7.30	4.38 - 10.2	Not Reported				7.19	0.733	
4390	Bromochloromethane	µg/L		15.9	12.7 - 19.1	Not Reported				15.6	1.56	
4950	Bromomethane	µg/L		< 3.00	0.00 - 3.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L		9.84	5.90 - 13.8	Not Reported				9.85	0.981	
4435	n-Butylbenzene	µg/L		13.7	11.0 - 16.4	Not Reported				13.3	1.44	
4440	sec-Butylbenzene	µg/L		< 1.20	0.00 - 1.20	Not Reported						
4445	tert-Butylbenzene	µg/L	23.3	19.4	15.5 - 23.3	Acceptable	EPA 524.2 4.1 1995	4/9/2015	1.88	19.1	2.22	
4485	Chloroethane	µg/L		9.50	5.70 - 13.3	Not Reported				10.6	2.15	
4960	Chloromethane	µg/L		< 3.00	0.00 - 3.00	Not Reported						
4535	2-Chlorotoluene	µg/L		7.19	4.31 - 10.1	Not Reported				7.32	0.684	
4540	4-Chlorotoluene	µg/L		7.25	4.35 - 10.2	Not Reported				7.54	1.05	
4595	Dibromomethane	µg/L		< 1.20	0.00 - 1.20	Not Reported						
4615	1,3-Dichlorobenzene	µg/L		< 1.20	0.00 - 1.20	Not Reported						
4625	Dichlorodifluoromethane (Freon 12)	µg/L		< 3.00	0.00 - 3.00	Not Reported						
4630	1,1-Dichloroethane	µg/L		7.51	4.51 - 10.5	Not Reported				7.92	1.04	
4660	1,3-Dichloropropane	µg/L		9.13	5.48 - 12.8	Not Reported				9.11	0.792	
4665	2,2-Dichloropropane	µg/L		4.91	2.95 - 6.87	Not Reported				4.95	0.905	
4670	1,1-Dichloropropene	µg/L		< 1.20	0.00 - 1.20	Not Reported						
4680	cis-1,3-Dichloropropene	µg/L		14.3	11.4 - 17.2	Not Reported				13.9	1.82	
4685	trans-1,3-Dichloropropene	µg/L		14.5	11.6 - 17.4	Not Reported				14.1	1.89	

031315G1 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 683) Study Dates: 03/13/15 - 04/13/15 (Continued)												
5175	Fluorotrichloromethane	µg/L		18.6	11.2 - 26.0	Not Reported				20.5	3.83	
4835	Hexachlorobutadiene	µg/L		< 3.00	0.00 - 3.00	Not Reported						
4900	Isopropylbenzene	µg/L		14.6	11.7 - 17.5	Not Reported				14.3	1.13	
4910	4-Isopropyltoluene	µg/L		< 1.20	0.00 - 1.20	Not Reported						
5005	Naphthalene	µg/L		14.6	10.2 - 19.0	Not Reported				15.0	1.97	
5090	n-Propylbenzene	µg/L		12.5	10.0 - 15.0	Not Reported				12.5	1.32	
5105	1,1,1,2-Tetrachloroethane	µg/L		10.2	8.16 - 12.2	Not Reported				10.2	1.06	
5110	1,1,2,2-Tetrachloroethane	µg/L		< 1.20	0.00 - 1.20	Not Reported						
5150	1,2,3-Trichlorobenzene	µg/L		16.9	13.5 - 20.3	Not Reported				17.6	2.38	
5180	1,2,3-Trichloropropane (TCP)	µg/L		13.3	10.6 - 16.0	Not Reported				13.1	1.99	
5210	1,2,4-Trimethylbenzene	µg/L		9.61	5.77 - 13.5	Not Reported				9.71	1.14	
5215	1,3,5-Trimethylbenzene	µg/L		14.6	11.7 - 17.5	Not Reported				15.0	1.54	
WS Regulated Semivolatiles #2 Herbicides (cat# 691) Study Dates: 03/13/15 - 04/13/15												
9390	Diquat	µg/L	28.8	38.2	19.1 - 57.3	Acceptable	EPA 549.2 1 1997	3/31/2015	0.214	27.0	8.53	
7525	Endothall	µg/L		309	154 - 464	Not Reported				267	85.8	
9411	Glyphosate	µg/L		516	413 - 619	Not Reported				540	57.2	
9528	Paraquat	µg/L		94.5	41.4 - 119	Not Reported				63.4	14.9	

eurofins | Eaton Analytical

April 17, 2015

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program
PO Box 100
Sacramento, CA 95812-0100

RE: Eurofins Eaton-Monrovia: ELAP Certificate No. 2813; EPA ID: CA00006
Eurofins Eaton-Colton: ELAP Certificate No. 2812; EPA ID: CA01622
ERA WS-222 & ERA WP-240 January Study Corrective Action Reports

Dear Ms. Sotelo:

Please find attached EEAI's corrective action reports for methods and analytes that failed ERA WS-222 & WP-240, January 2015 Full PT studies for our Monrovia and Colton facilities.

For our Monrovia facility, the lab participated in ERA 'Quik' response PT # 031315G1 and #031315G2 as makeup PTs for Not Acceptable results, and ERA 'Quik' response PT 031015I as makeup PT for our Colton facility.

Corrective actions are being implemented to eliminate the problems. Internal QC check samples were provided to the analysts to determine if corrective actions implemented are effective in eliminating the problems.

If you have any questions, please call me at 626-386-1117 or our QA Officer, Nilda Cox, at 626-386-1170. Our email addresses are NildaCox@eurofinsus.com and AlmaCapati@eurofinsus.com.

Thank you.

Sincerely,

Alma Capati
QA Assistant

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-222 January 2015 PT Study**

Corrective Action Report No.: 1

eurofins | Eaton Analytical

Sample Information		
Department:	GCMS	
Method(s):	EPA 524.3	
Analyte(s):	Bromodichloromethane / Chloroform	
Sample ID:	WS Halomethanes	
Sample No.:	201501080111	
Group No.:	515034	
Date Analyzed:	2/10/2015	
Analyst:	Matt Bandel	
Reported Value:	14.7 / 31.5	ug/L
True Value:	12.1 / 25.9	ug/L
% Recovery:	121% / 122%	
Acceptance Limits:		9.68-14.5 / 20.7-31.1 ug/L (80-120%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)		
LCS1	102 / 86	ug/L
LCS2	109 / 113	ug/L
RPD_LCS (%)	7 / 27	
MS	90 / 92	ug/L
MSD	90 / 87	ug/L
RPD_MS (%)	0 / 6	

Problem Identification (Root Cause Analysis)			
	Dilution Error	x	Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check		
Result =	16.8 / 17.5	ug/L
Spike Value =	16.0 / 16.8	ug/L
	105 / 104 %	
Acceptance Limits	BDCM: 12.9-20.0; CHCl3: 13.4-20.5	ug/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

No particular root cause identified. The source was cleaned due to failing UCMR3 tune and the column was changed due to poor UCMR3 peak separation.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Results of the QC Standard were acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031315G1 as make up study. Results of the make up PT were acceptable.

Analyst : Matt Bandel Date: 4/17/15

Technical Manager: Charles Grady Date: 4-17-15

Quality Manager: Nilda B. Cox Date: 04/17/2015

Laboratory Director: Dennis Leeke Date: 4/17/15

Corrective Action Report

For Not Acceptable Value Reported

PT Study: **ERA WS-222 January 2015 PT Study**

Corrective Action Report No.: 2

eurofins | Eaton Analytical

Sample Information		
Department:	GCMS	
Method(s):	EPA 524.2	
Analyte(s):	tert-Butylbenzene	
Sample ID:	WS Unregulated Volatiles	
Sample No.:	201501080098	
Group No.:	515034	
Date Analyzed:	2/10/2015	
Analyst:	Karen Muroi	
Reported Value:	21.9	ug/L
True Value:	18.0	ug/L
% Recovery:	122%	
Acceptance Limits:		14.4-21.6 ug/l (80-120%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	108
LCS2	105
RPD_LCS	3
MS	
MSD	
RPD_MS	

Problem Identification (Root Cause Analysis)		
		Dilution Error
		QC Limits not met
		SOP not followed
		Calculation Error
		Lab Contamination
		Log in Error
		Training
		Reporting Error
		Instrument Problems
	x	Standards Problems
	x	Other

Noticed recoveries above 20 ug/L give high bias results.

Internal QC Check		
Result =	6.14	ug/L
Spike Value =	5.76	ug/L
% Recovery =	107%	
Acceptance Limits	4.14-7.20	ug/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Dilute any positive hits above 20 ug/L to get compound to LCS level. Will order standard to further investigate issues. After the validation study is complete, the analyst will implement the same dilution policy to any samples that has >20 ug/L hits.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031315G1 as make up study. Result of the make up PT was acceptable.

Analyst : Karen Muroi Date: 4-17-15

Technical Manager: Charles Grady Date: 4-17-15

Quality Manager: Nilda Cox Date: 4-17-15

Laboratory Director: Dennis Leeke Date: 4/17/15

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WS-222 January 2015 PT Study**

Corrective Action Report No.: 3

eurofins | Eaton Analytical

Sample Information		
Department:	HPLC	
Method(s):	EPA 549.2	
Analyte(s):	Diquat	
Sample ID:	WS Regulated Semivolatiles #2 Herbicides	
Sample No.:	201501080107	
Group No.:	445433	
Date Analyzed:	1/16/2015	
Analyst:	Xinwei Ouyang	
Reported Value:	11.7	ug/L
True Value:	26.5	ug/L
% Recovery:	44%	
Acceptance Limits:		13.2-39.8 ug/L (50-150%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	79
LCS2	81
RPD_LCS	2
MS	68
MSD	83
RPD_MS	20

Problem Identification (Root Cause Analysis)			
	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed	x	Other
	Calculation Error		
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

Internal QC Check		
Result =	7.14	ug/L
Spike Value =	11.6	ug/L
% Recovery =	62%	
Acceptance Limits	4.78-14.2	ug/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

An additional rinse was added to the extraction rinse funnel.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031315G1 as make up study. Result of the make up PT was acceptable.

Analyst : Xinwei Ouyang Date: 4/17/15

Technical Manager: Charles Grady Date: 4-17-15

Quality Manager: Nilda Cox Date: 4/17/15

Laboratory Director: Dennis Leeke Date: 4/17/15

Corrective Action Report
For Not Acceptable Value Reported

PT Study: ERA WS-222 January 2015 PT Study
Corrective Action Report No.: 1

eurofins
Eaton Analytical

Sample Information

Department:	Microbiology	
Method(s):	SM 9223 Colilert-18 hour	
Analyte(s):	Total Coliform & E. coli	
Sample ID:	WS Source Water Microbe	
Sample No.:	201501090141	
Group No.:	515290	
Date Analyzed:	1/28/2015	
Analyst:	Rose Fredendall	
Reported Value:	240 / 240	MPN/100 ml
True Value:	158 / 158	MPN/100 ml
% Recovery:	152%	
Acceptance Limits:		Total: 67.5-238 (43-151 %) Ecoli: 69.3-238 (44-151%)
Performance Evaluation:		Not Acceptable

Internal QC Check

ERA 3/10/15

Result =	110 / 110	MPN/100 ml
Spike Value =	118 / 118	MPN/100 ml
% Recovery =	93 / 93	
Acceptance Limits: Total	69.5-201	MPN/100 ml
Acceptance Limits: E coli	58.9-235	MPN/100 ml
Evaluation =	Acceptable	

Problem Identification (Root Cause Analysis)

	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*Reported 110 when the result should be reported as >23.*
	Lab Contamination		
	Log in Error		
	Training		
x	Reporting Error		

Makeup PT

Result =	46.0 / 46.0	MPN/100 ml
Spike Value =	83.0 / 83.0	MPN/100 ml
% Recovery =	55 / 55	
Limits: Total Coliform	39.4-110	MPN/100 ml
Acceptance Limits: E coli	41.6-106	MPN/100 ml
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Current WS Source PT requires an enumeration test that will give overrange values for a WS study for the Coli-10 method for which EEA typically performs this test. EEA performs Coli-10 (10 tube) with an MPN maximum value of >23 MPN/100 mL. The WS Source Water study will typically always be over this maximum as Coli-10 method is designed for a drinking water source matrix. In the events the WS Source Water results are >23, the sample test results for Colilert 18 Quantitray will be reported as Idexx/Colilert. EEA will add Quantitray to the Colton Facility as Quantitray will give more accurate results, be in line with Monrovia main lab and other satelite labs, and for LT2 Ecoli testing dilution should be 15 -20 fold dilution thus this test would be very laborious and not give as accurate data as Quantitray.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard was provided to the analyst to determine if the problem is resolved. Results of the QC standard were acceptable. The lab participated in ERA's 'Quik' response PT 0310151 as make up study. Results of the make up PT were acceptable.

Analyst : Rose Fredendall Date: 04/17/15
Rose Fredendall

Technical Manager: Nilda Cox for Polly Barrowman Date: 04/17/2015
Polly Barrowman

Quality Manager: Nilda Cox Date: 04/17/2015

Nilda Cox

Laboratory Director: Linda Geddes FOR DEL Date: 4/17/15

Dennis Leeke

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

WS-228 Final Report

WatR™ Supply Proficiency Testing

WatR™ Supply Study

Open Date: 07/07/15

Close Date: 08/21/15

Report Issued Date: 08/25/15

WS-228 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
WS Hexavalent Chromium (cat# 854)							
1045	Hexavalent Chromium	µg/L	13.0	16.6	13.3 - 19.9	Not Acceptable	SM 3500-Cr B 22nd ED 2011
1045	Hexavalent Chromium	µg/L	13.0	16.6	13.3 - 19.9	Not Acceptable	SM3500Cr B 20th ED 1997

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-228**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hardness (cat# 555)												
1035	Calcium	mg/L	36.1	38.3	32.6 - 44.0	Acceptable	EPA 200.7 4.4 1994	8/6/2015	-1.27	38.6	1.98	
1085	Magnesium	mg/L	13.8	14.0	11.9 - 16.1	Acceptable	EPA 200.7 4.4 1994	8/6/2015	-0.483	14.1	0.667	
1155	Sodium	mg/L	17.0	17.3	14.7 - 19.9	Acceptable	EPA 200.7 4.4 1994	8/6/2015	-0.493	17.4	0.784	
1550	Calcium Hardness as CaCO3	mg/L	90.1	95.6	81.3 - 110	Acceptable	EPA 200.7 4.4 1994	8/7/2015	-1.32	96.2	4.60	
1755	Total Hardness as CaCO3	mg/L	147	153	130 - 176	Acceptable	EPA 200.7 4.4 1994	8/7/2015	-1.45	155	5.27	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		38.3	32.6 - 44.0	Not Reported				38.6	1.98	
1085	Magnesium	mg/L		14.0	11.9 - 16.1	Not Reported				14.1	0.667	
1155	Sodium	mg/L		17.3	14.7 - 19.9	Not Reported				17.4	0.784	
1550	Calcium Hardness as CaCO3	mg/L	90.1	95.6	81.3 - 110	Acceptable	SM2340B 22nd ED 2011	8/7/2015	-1.32	96.2	4.60	
1755	Total Hardness as CaCO3	mg/L	147	153	130 - 176	Acceptable	SM2340B 22nd ED 2011	8/7/2015	-1.45	155	5.27	
WS Hardness (cat# 555)												
1035	Calcium	mg/L		38.3	32.6 - 44.0	Not Reported				38.6	1.98	
1085	Magnesium	mg/L		14.0	11.9 - 16.1	Not Reported				14.1	0.667	
1155	Sodium	mg/L		17.3	14.7 - 19.9	Not Reported				17.4	0.784	
1550	Calcium Hardness as CaCO3	mg/L	90.1	95.6	81.3 - 110	Acceptable	SM2340B 20th ED 1997	8/7/2015	-1.32	96.2	4.60	
1755	Total Hardness as CaCO3	mg/L	147	153	130 - 176	Acceptable	SM2340B 20th ED 1997	8/7/2015	-1.45	155	5.27	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	35.0	36.9	33.2 - 40.6	Acceptable	SM2320B 22nd ED 2011	7/27/2015	-1.08	36.8	1.64	
1575	Chloride	mg/L	84.4	82.2	69.9 - 94.5	Acceptable	EPA 300.0 2.1 1993	7/28/2015	0.932	81.3	3.27	
1610	Conductivity at 25°C	µmhos/cm	655	653	588 - 718	Acceptable	SM2510B 22nd ED 2011	7/27/2015	-0.514	664	17.2	
1730	Fluoride	mg/L	1.56	1.62	1.46 - 1.78	Acceptable	SM4500F- C 22nd ED 2011	7/27/2015	-0.0671	1.56	0.0742	
1820	Nitrate + Nitrite as N	mg/L	5.90	6.15	5.23 - 7.07	Acceptable	EPA 353.2 2 1993	7/30/2015	-0.233	5.96	0.240	
1810	Nitrate as N	mg/L	5.90	6.15	5.54 - 6.76	Acceptable	EPA 353.2 2 1993	7/30/2015	-0.345	5.98	0.239	
1125	Potassium	mg/L	21.7	20.5	17.4 - 23.6	Acceptable	EPA 200.7 4.4 1994	8/6/2015	1.29	20.2	1.19	
2000	Sulfate	mg/L	117	112	95.2 - 129	Acceptable	EPA 300.0 2.1 1993	7/28/2015	1.64	110	4.24	
1955	Total Dissolved Solids at 180°C	mg/L	412	416	333 - 499	Acceptable	SM2540C 22nd ED 2011	7/28/2015	-0.130	414	15.8	
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L	35.0	36.9	33.2 - 40.6	Acceptable	SM2320B 20th ED 1997	7/27/2015	-1.08	36.8	1.64	
1575	Chloride	mg/L		82.2	69.9 - 94.5	Not Reported				81.3	3.27	
1610	Conductivity at 25°C	µmhos/cm	655	653	588 - 718	Acceptable	SM2510B 20th ED 1997	7/27/2015	-0.514	664	17.2	
1730	Fluoride	mg/L	1.56	1.62	1.46 - 1.78	Acceptable	SM4500F- C 20th ED 1997	7/27/2015	-0.0671	1.56	0.0742	
1820	Nitrate + Nitrite as N	mg/L	6.12	6.15	5.23 - 7.07	Acceptable	EPA 300.0 2.1 1993	7/28/2015	0.685	5.96	0.240	
1810	Nitrate as N	mg/L	6.12	6.15	5.54 - 6.76	Acceptable	EPA 300.0 2.1 1993	7/28/2015	0.576	5.98	0.239	
1125	Potassium	mg/L		20.5	17.4 - 23.6	Not Reported				20.2	1.19	
2000	Sulfate	mg/L		112	95.2 - 129	Not Reported				110	4.24	
1955	Total Dissolved Solids at 180°C	mg/L	412	416	333 - 499	Acceptable	SM2540C 20th ED 1997	7/28/2015	-0.130	414	15.8	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganics (cat# 591)												
1505	Alkalinity as CaCO3	mg/L		36.9	33.2 - 40.6	Not Reported				36.8	1.64	
1575	Chloride	mg/L		82.2	69.9 - 94.5	Not Reported				81.3	3.27	
1610	Conductivity at 25°C	µmhos/cm		653	588 - 718	Not Reported				664	17.2	
1730	Fluoride	mg/L	1.56	1.62	1.46 - 1.78	Acceptable	EPA 300.0 2.1 1993	8/12/2015	-0.0671	1.56	0.0742	
1820	Nitrate + Nitrite as N	mg/L		6.15	5.23 - 7.07	Not Reported				5.96	0.240	
1810	Nitrate as N	mg/L		6.15	5.54 - 6.76	Not Reported				5.98	0.239	
1125	Potassium	mg/L		20.5	17.4 - 23.6	Not Reported				20.2	1.19	
2000	Sulfate	mg/L		112	95.2 - 129	Not Reported				110	4.24	
1955	Total Dissolved Solids at 180°C	mg/L		416	333 - 499	Not Reported				414	15.8	
WS pH (cat# 552)												
1900	pH	S.U.	8.59	8.63	8.43 - 8.83	Acceptable	SM4500H+ B 22nd ED 2011	7/27/2015	-0.0799	8.60	0.0709	
WS pH (cat# 552)												
1900	pH	S.U.	8.59	8.63	8.43 - 8.83	Acceptable	SM4500H+ B 20th ED 1996	7/27/2015	-0.0799	8.60	0.0709	
WS pH (cat# 552)												
1900	pH	S.U.	8.59	8.63	8.43 - 8.83	Acceptable	EPA 150.1 1982	7/27/2015	-0.0799	8.60	0.0709	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	482	467	374 - 560	Acceptable	EPA 200.8 5.4 1994	8/3/2015	0.443	470	26.0	
1005	Antimony	µg/L	34.7	35.9	25.1 - 46.7	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.691	36.3	2.31	
1010	Arsenic	µg/L	39.8	41.6	29.1 - 54.1	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.145	40.1	2.39	
1015	Barium	µg/L	1840	1870	1590 - 2150	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.106	1850	81.8	
1020	Beryllium	µg/L	3.90	3.62	3.08 - 4.16	Acceptable	EPA 200.8 5.4 1994	8/5/2015	1.02	3.64	0.257	
1025	Boron	µg/L		1010	858 - 1160	Not Reported				992	67.9	
1030	Cadmium	µg/L	41.5	43.0	34.4 - 51.6	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.429	42.3	1.90	
1040	Chromium	µg/L	157	159	135 - 183	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.319	159	5.99	
1055	Copper	µg/L	1750	1780	1600 - 1960	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.291	1770	81.2	
1070	Iron	µg/L		1670	1420 - 1920	Not Reported				1690	75.0	
1075	Lead	µg/L	57.1	59.0	41.3 - 76.7	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.650	59.1	3.01	
1090	Manganese	µg/L	509	512	435 - 589	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.871	527	21.0	
1100	Molybdenum	µg/L	58.3	60.5	51.4 - 69.6	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.331	59.2	2.78	
1105	Nickel	µg/L	124	129	110 - 148	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.535	127	5.25	
1140	Selenium	µg/L	29.5	29.6	23.7 - 35.5	Acceptable	EPA 200.8 5.4 1994	8/3/2015	0.0846	29.3	2.31	
1150	Silver	µg/L	214	215	150 - 280	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.0608	215	11.0	
1165	Thallium	µg/L	7.78	8.04	5.63 - 10.5	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.172	7.88	0.556	
1185	Vanadium	µg/L	389	407	346 - 468	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.862	401	14.4	
1190	Zinc	µg/L	292	299	254 - 344	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.643	302	15.7	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Metals (cat# 590)												
1000	Aluminum	µg/L	455	467	374 - 560	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.597	470	26.0	
1005	Antimony	µg/L		35.9	25.1 - 46.7	Not Reported				36.3	2.31	
1010	Arsenic	µg/L		41.6	29.1 - 54.1	Not Reported				40.1	2.39	
1015	Barium	µg/L	1850	1870	1590 - 2150	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.0158	1850	81.8	
1020	Beryllium	µg/L	3.83	3.62	3.08 - 4.16	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.747	3.64	0.257	
1025	Boron	µg/L	956	1010	858 - 1160	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.532	992	67.9	
1030	Cadmium	µg/L	41.0	43.0	34.4 - 51.6	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.692	42.3	1.90	
1040	Chromium	µg/L	158	159	135 - 183	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.152	159	5.99	
1055	Copper	µg/L	1660	1780	1600 - 1960	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-1.40	1770	81.2	
1070	Iron	µg/L	1600	1670	1420 - 1920	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-1.14	1690	75.0	
1075	Lead	µg/L		59.0	41.3 - 76.7	Not Reported				59.1	3.01	
1090	Manganese	µg/L	524	512	435 - 589	Acceptable	EPA 200.7 4.4 1994	8/11/2015	-0.158	527	21.0	
1100	Molybdenum	µg/L	60.6	60.5	51.4 - 69.6	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.497	59.2	2.78	
1105	Nickel	µg/L	126	129	110 - 148	Acceptable	EPA 200.7 4.4 1994	8/11/2015	-0.155	127	5.25	
1140	Selenium	µg/L		29.6	23.7 - 35.5	Not Reported				29.3	2.31	
1150	Silver	µg/L	204	215	150 - 280	Acceptable	EPA 200.7 4.4 1994	8/11/2015	-0.967	215	11.0	
1165	Thallium	µg/L		8.04	5.63 - 10.5	Not Reported				7.88	0.556	
1185	Vanadium	µg/L	399	407	346 - 468	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.168	401	14.4	
1190	Zinc	µg/L	299	299	254 - 344	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.198	302	15.7	
WS Mercury (cat# 551)												
1095	Mercury	µg/L	6.85	6.45	4.52 - 8.38	Acceptable	EPA 245.1 3 1994	7/31/2015	0.632	6.51	0.540	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	16.8	16.6	13.3 - 19.9	Acceptable	EPA 218.6 3.3 1994	7/17/2015	-0.334	17.2	1.15	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	15.4	16.6	13.3 - 19.9	Acceptable	EPA 218.7 1 2011	7/23/2015	-1.55	17.2	1.15	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	13.0	16.6	13.3 - 19.9	Not Acceptable	SM 3500-Cr B 22nd ED 2011	7/17/2015	-3.64	17.2	1.15	
WS Hexavalent Chromium (cat# 854)												
1045	Hexavalent Chromium	µg/L	13.0	16.6	13.3 - 19.9	Not Acceptable	SM3500Cr B 20th ED 1997	7/17/2015	-3.64	17.2	1.15	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	96.6	96.4	67.5 - 125	Acceptable	EPA 300.0 2.1 1993	8/10/2015	0.102	96.4	2.27	
1595	Chlorite	µg/L	545	521	365 - 677	Acceptable	EPA 300.0 2.1 1993	8/10/2015	0.672	530	21.8	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	96.9	96.4	67.5 - 125	Acceptable	EPA 300.1 1 2000	8/11/2015	0.234	96.4	2.27	
1595	Chlorite	µg/L	535	521	365 - 677	Acceptable	EPA 300.1 1 2000	8/11/2015	0.213	530	21.8	
WS Inorganic Disinfection #1 (cat# 5270)												
1570	Chlorate	µg/L	96.6	96.4	67.5 - 125	Acceptable	EPA 9056 1996	8/10/2015	0.102	96.4	2.27	
1595	Chlorite	µg/L		521	365 - 677	Not Reported				530	21.8	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L		38.9	27.2 - 50.6	Not Reported				39.3	1.44	
1540	Bromide	µg/L	134	131	111 - 151	Acceptable	EPA 300.0 2.1 1993	8/11/2015	0.259	131	12.6	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	39.6	38.9	27.2 - 50.6	Acceptable	EPA 300.1 1 2000	8/11/2015	0.221	39.3	1.44	
1540	Bromide	µg/L	134	131	111 - 151	Acceptable	EPA 300.1 1 2000	8/11/2015	0.259	131	12.6	
WS Inorganic Disinfection #2 (cat# 5260)												
1535	Bromate	µg/L	40.4	38.9	27.2 - 50.6	Acceptable	EPA 317.0 2	8/11/2015	0.777	39.3	1.44	
1540	Bromide	µg/L		131	111 - 151	Not Reported				131	12.6	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	0.939	0.898	0.763 - 1.03	Acceptable	EPA 300.0 2.1 1993	7/30/2015	0.737	0.905	0.0461	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	0.944	0.898	0.763 - 1.03	Acceptable	EPA 300.1 1 2000	7/30/2015	0.845	0.905	0.0461	
WS Nitrite (cat# 594)												
1840	Nitrite as N	mg/L	0.905	0.898	0.763 - 1.03	Acceptable	EPA 353.2 2 1993	7/29/2015	-0.00119	0.905	0.0461	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.74	2.61	2.22 - 3.00	Acceptable	EPA 365.1 2 1993	7/17/2015	0.768	2.63	0.137	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.74	2.61	2.22 - 3.00	Acceptable	SM4500P E 22nd ED 2011	7/17/2015	0.768	2.63	0.137	
WS o-Phosphate Nutrients (cat# 558)												
1870	ortho-Phosphate as P	mg/L	2.74	2.61	2.22 - 3.00	Acceptable	SM4500P E 20th ED 1997	7/17/2015	0.768	2.63	0.137	
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	1.36	1.39	1.13 - 1.66	Acceptable	SM4500Cl G 22nd ED 2011	7/23/2015	0.00804	1.36	0.0895	
1940	Total Residual Chlorine	mg/L	1.42	1.39	1.17 - 1.60	Acceptable	SM4500Cl G 22nd ED 2011	7/23/2015	0.330	1.40	0.0647	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Residual Chlorine (cat# 593)												
1945	Free Residual Chlorine	mg/L	1.36	1.39	1.13 - 1.66	Acceptable	SM4500Cl G 20th ED 1993	7/23/2015	0.00804	1.36	0.0895	
1940	Total Residual Chlorine	mg/L	1.42	1.39	1.17 - 1.60	Acceptable	SM4500Cl G 20th ED 1993	7/23/2015	0.330	1.40	0.0647	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.283	0.332	0.249 - 0.415	Acceptable	EPA 335.4 1993	7/28/2015	-0.953	0.321	0.0399	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.281	0.332	0.249 - 0.415	Acceptable	SM4500CN F 22nd ED 2011	7/28/2015	-1.00	0.321	0.0399	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.281	0.332	0.249 - 0.415	Acceptable	SM4500CN F 20th ED 1997	7/28/2015	-1.00	0.321	0.0399	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.277	0.332	0.249 - 0.415	Acceptable	SM4500CN G 22nd ED 2011	7/28/2015	-1.10	0.321	0.0399	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.277	0.332	0.249 - 0.415	Acceptable	SM4500CN G 20th ED	7/28/2015	-1.10	0.321	0.0399	
WS Cyanide (cat# 556)												
1645	Cyanide, total	mg/L	0.344	0.332	0.249 - 0.415	Acceptable	OIA 1677 2004	8/5/2015	0.575	0.321	0.0399	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	11.2	11.1	9.88 - 12.2	Acceptable	SM5310C 22nd ED 2011	7/27/2015	0.0984	11.1	0.594	
2040	Total Organic Carbon (TOC)	mg/L	11.4	11.1	8.88 - 13.3	Acceptable	SM5310C 22nd ED 2011	7/18/2015	0.228	11.3	0.567	
WS Organic Carbon (cat# 557)												
1710	Dissolved Organic Carbon (DOC)	mg/L	11.2	11.1	9.88 - 12.2	Acceptable	SM5310C 20th ED 1996	7/27/2015	0.0984	11.1	0.594	
2040	Total Organic Carbon (TOC)	mg/L	11.4	11.1	8.88 - 13.3	Acceptable	SM5310C 20th ED 1996	7/18/2015	0.228	11.3	0.567	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	7.79	8.59	6.87 - 10.3	Acceptable	EPA 314.0 1 1999	8/13/2015	-0.643	8.33	0.843	
WS Perchlorate (cat# 903)												
1895	Perchlorate	µg/L	7.40	8.59	6.87 - 10.3	Acceptable	EPA 331.0 1.0 2005	7/27/2015	-1.11	8.33	0.843	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	29.9	27.3	23.2 - 31.4	Acceptable	EPA 200.7 4.4 1994	8/6/2015	1.89	26.8	1.63	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	29.3	27.3	23.2 - 31.4	Acceptable	SM4500SiO2 C 22nd ED 2011	8/6/2015	1.52	26.8	1.63	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	29.3	27.3	23.2 - 31.4	Acceptable	SM4500SiO2 C 20th ED 1997	8/6/2015	1.52	26.8	1.63	
WS Silica (cat# 902)												
1990	Silica as SiO2	mg/L	29.3	27.3	23.2 - 31.4	Acceptable	SM4500Si D 19th ED 1993	8/6/2015	1.52	26.8	1.63	
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.460	0.396	0.271 - 0.517	Acceptable	SM5540C 22nd ED 2011	7/22/2015	0.820	0.410	0.0610	
WS Surfactants - MBAS (cat# 901)												
2025	Surfactants - MBAS	mg/L	0.460	0.396	0.271 - 0.517	Acceptable	SM5540C 20th ED 1993	7/22/2015	0.820	0.410	0.0610	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	1.64	1.55	1.15 - 1.95	Acceptable	SM2330B 21st ED 2000	7/28/2015	0.853	1.51	0.148	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	1.64	1.55	1.15 - 1.95	Acceptable	SM2330B 20th ED 1993	7/28/2015	0.853	1.51	0.148	
WS Corrosivity (cat# 900)												
1620	Corrosivity	S.I.@ 20°C	1.64	1.55	1.15 - 1.95	Acceptable	EPA 9040C 2002	7/28/2015	0.853	1.51	0.148	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	4.18	4.03	3.40 - 4.58	Acceptable	EPA 180.1 2 1993	7/24/2015	0.978	3.96	0.222	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	4.18	4.03	3.40 - 4.58	Acceptable	SM2130B 22nd ED 2011	7/24/2015	0.978	3.96	0.222	
WS Turbidity (cat# 592)												
2055	Turbidity	NTU	4.18	4.03	3.40 - 4.58	Acceptable	SM2130B 20th ED 1994	7/24/2015	0.978	3.96	0.222	
WS Color (cat# 859)												
1605	Color	PC units	30.0	35.0	25.0 - 45.0	Acceptable	SM2120C 20th ED 1993	7/27/2015	-0.781	33.1	3.94	
WS Color (cat# 859)												
1605	Color	PC units	30.0	35.0	25.0 - 45.0	Acceptable	SM2120B 22nd ED 2011	7/27/2015	-0.781	33.1	3.94	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.388	0.344	0.279 - 0.412	Acceptable	SM5910B 22nd ED 2011	7/28/2015	0.643	0.358	0.0474	
WS UV 254 Absorbance (cat# 904)												
2060	UV 254 Absorbance	cm-1	0.388	0.344	0.279 - 0.412	Acceptable	SM5910B 20th ED 1994	7/28/2015	0.643	0.358	0.0474	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-228**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/8/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/8/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/8/2015				
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 21st ED 2005	8/6/2015				
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 21st ED 2005	8/8/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A)												
2500	Total Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/8/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/8/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/8/2015				
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9221B + E EC 20th ED 1994	8/6/2015				
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9221B + E EC 20th ED 1994	8/8/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080A) (Continued)												
2525	E.coli - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2525	E.coli - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2525	E.coli - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Acceptable
E.coli Evaluation : Not Reported

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 9
Total Coliform Organism - Enterobacter cloacae, Samples 2, 5 and 8
Negative (1) Coliform Organism - Proteus mirabilis, Sample 1
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 10
Blank - No Organism, Samples 6 and 7

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 7, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 3 and 8

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 7, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 3 and 8

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 22nd ED 2004	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 7, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 3 and 8

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 7, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 3 and 8

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 7, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 3 and 8

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080B) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 20th ED 1997	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 1, 4 and 6
Total Coliform Organism - Enterobacter cloacae, Samples 7, 9 and 10
Negative (1) Coliform Organism - Proteus mirabilis, Sample 5
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 2
Blank - No Organism, Samples 3 and 8

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 5 and 7

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 5 and 7

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 22nd ED 2004	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 5 and 7

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 5 and 7

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Presence	Presence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 5 and 7

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080C) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				
2525	E.coli - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLert18 20th ED 1998	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 3, 4 and 10
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 9
Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 6
Blank - No Organism, Samples 5 and 7

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 10
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3
Blank - No Organism, Samples 8 and 9

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 10
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3
Blank - No Organism, Samples 8 and 9

WS-228 2009 TNI Evaluation Final Complete Report

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 22nd ED 2004	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 10
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3
Blank - No Organism, Samples 8 and 9

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D)												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 10
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3
Blank - No Organism, Samples 8 and 9

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 10
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3
Blank - No Organism, Samples 8 and 9

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS MicrobE™ (Coliforms) (cat# 080D) (Continued)												
2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 5	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 7	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 9	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLISURE 20th ED 1997	8/5/2015				

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 5 and 7
Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 6
Negative (1) Coliform Organism - Proteus mirabilis, Sample 10
Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3
Blank - No Organism, Samples 8 and 9

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		114	34.0 - 121	Not Reported				64.1	21.8	
2530	Fecal Coliforms (MF)	CFU/100mL		114	8.00 - 162	Not Reported				36.9	38.4	
2525	E.coli (MF)	CFU/100mL		114	32.0 - 123	Not Reported				62.3	22.9	
2500	Total Coliforms (MPN)	MPN/100mL	77.6	143	50.6 - 195	Acceptable	SM9223 COLt18QT 20th ED 1997	8/5/2015	-0.602	99.3	36.0	
2530	Fecal Coliforms (MPN)	MPN/100mL		143	15.1 - 260	Not Reported				62.6	61.2	
2525	E.coli (MPN)	MPN/100mL	77.6	143	54.6 - 181	Acceptable	SM9223 COLt18QT 20th ED 1997	8/5/2015	-0.689	99.3	31.5	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		114	34.0 - 121	Not Reported				64.1	21.8	
2530	Fecal Coliforms (MF)	CFU/100mL		114	8.00 - 162	Not Reported				36.9	38.4	
2525	E.coli (MF)	CFU/100mL		114	32.0 - 123	Not Reported				62.3	22.9	
2500	Total Coliforms (MPN)	MPN/100mL	131	143	50.6 - 195	Acceptable	SM9223 COLertQT 21st ED 1997	8/5/2015	0.882	99.3	36.0	
2530	Fecal Coliforms (MPN)	MPN/100mL		143	15.1 - 260	Not Reported				62.6	61.2	
2525	E.coli (MPN)	MPN/100mL	131	143	54.6 - 181	Acceptable	SM9223 COLertQT 21st ED 1997	8/5/2015	1.01	99.3	31.5	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		114	34.0 - 121	Not Reported				64.1	21.8	
2530	Fecal Coliforms (MF)	CFU/100mL		114	8.00 - 162	Not Reported				36.9	38.4	
2525	E.coli (MF)	CFU/100mL		114	32.0 - 123	Not Reported				62.3	22.9	
2500	Total Coliforms (MPN)	MPN/100mL	131	143	50.6 - 195	Acceptable	SM9223 COLertQT 20th ED 1998	8/5/2015	0.882	99.3	36.0	
2530	Fecal Coliforms (MPN)	MPN/100mL		143	15.1 - 260	Not Reported				62.6	61.2	
2525	E.coli (MPN)	MPN/100mL	131	143	54.6 - 181	Acceptable	SM9223 COLertQT 20th ED 1998	8/5/2015	1.01	99.3	31.5	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		114	34.0 - 121	Not Reported				64.1	21.8	
2530	Fecal Coliforms (MF)	CFU/100mL		114	8.00 - 162	Not Reported				36.9	38.4	
2525	E.coli (MF)	CFU/100mL		114	32.0 - 123	Not Reported				62.3	22.9	
2500	Total Coliforms (MPN)	MPN/100mL	77.6	143	50.6 - 195	Acceptable	SM9223 COLt18QT 21st ED 1997	8/5/2015	-0.602	99.3	36.0	
2530	Fecal Coliforms (MPN)	MPN/100mL		143	15.1 - 260	Not Reported				62.6	61.2	
2525	E.coli (MPN)	MPN/100mL	77.6	143	54.6 - 181	Acceptable	SM9223 COLt18QT 21st ED 1997	8/5/2015	-0.689	99.3	31.5	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	61.0	69.0	38.0 - 77.0	Acceptable	SM9215B PCA 21st ED 2000	8/6/2015	0.750	53.6	9.82	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		69.0	32.7 - 98.2	Not Reported				56.7	16.4	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Heterotrophic Plate Count (cat# 079)												
2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	61.0	69.0	38.0 - 77.0	Acceptable	SM9215B PCA 20th ED 1998	8/6/2015	0.750	53.6	9.82	
2555	Heterotrophic Plate Count (MPN)	MPN/mL		69.0	32.7 - 98.2	Not Reported				56.7	16.4	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WS-228**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chloral Hydrate (cat# 853)												
4460	Chloral Hydrate	µg/L	16.6	17.8	3.76 - 28.5	Acceptable	EPA 551.1 1 1992	7/29/2015	0.165	16.5	0.759	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	9.08	9.65	5.79 - 13.5	Acceptable	SM6251B 22nd ED 2007	7/23/2015	-0.688	10.1	1.43	
9315	Bromochloroacetic acid	µg/L	43.1	41.1	24.7 - 57.5	Acceptable	SM6251B 22nd ED 2007	7/23/2015	0.00	43.1	5.03	
9336	Chloroacetic acid	µg/L	17.0	21.2	12.7 - 29.7	Acceptable	SM6251B 22nd ED 2007	7/23/2015	-1.24	21.4	3.53	
9357	Dibromoacetic acid	µg/L	18.3	18.7	11.2 - 26.2	Acceptable	SM6251B 22nd ED 2007	7/23/2015	0.0590	18.2	2.45	
9360	Dichloroacetic acid	µg/L	20.6	21.9	13.1 - 30.7	Acceptable	SM6251B 22nd ED 2007	7/23/2015	-0.680	22.5	2.80	
9642	Trichloroacetic acid	µg/L	21.8	23.3	14.0 - 32.6	Acceptable	SM6251B 22nd ED 2007	7/23/2015	-0.334	22.9	3.26	
WS Haloacetic Acids (HAA) (cat# 852)												
9312	Bromoacetic acid	µg/L	9.08	9.65	5.79 - 13.5	Acceptable	SM6251B 21st ED 1994	7/23/2015	-0.688	10.1	1.43	
9315	Bromochloroacetic acid	µg/L	43.1	41.1	24.7 - 57.5	Acceptable	SM6251B 21st ED 1994	7/23/2015	0.00	43.1	5.03	
9336	Chloroacetic acid	µg/L	17.0	21.2	12.7 - 29.7	Acceptable	SM6251B 21st ED 1994	7/23/2015	-1.24	21.4	3.53	
9357	Dibromoacetic acid	µg/L	18.3	18.7	11.2 - 26.2	Acceptable	SM6251B 21st ED 1994	7/23/2015	0.0590	18.2	2.45	
9360	Dichloroacetic acid	µg/L	20.6	21.9	13.1 - 30.7	Acceptable	SM6251B 21st ED 1994	7/23/2015	-0.680	22.5	2.80	
9642	Trichloroacetic acid	µg/L	21.8	23.3	14.0 - 32.6	Acceptable	SM6251B 21st ED 1994	7/23/2015	-0.334	22.9	3.26	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	23.0	24.7	18.5 - 31.4	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.977	24.4	1.41	
4420	Tert-Butyl Alcohol	µg/L	28.1	39.7	23.7 - 55.3	Acceptable	EPA 524.2 4.1 1995	7/18/2015	-2.20	38.1	4.56	
5000	tert-Butyl methyl ether (MTBE)	µg/L	16.9	17.7	14.2 - 21.2	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-1.11	18.0	1.01	
9375	Di-isopropylether (DIPE)	µg/L	17.0	18.6	15.1 - 23.2	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-1.18	18.5	1.29	
4770	Ethyl-t-butylether (ETBE)	µg/L	29.7	31.6	25.0 - 40.8	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-1.22	32.7	2.47	
5175	Trichlorofluoromethane (Freon 11)	µg/L	42.3	41.5	24.9 - 58.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.488	43.7	2.85	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	39.1	40.0	26.7 - 53.3	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.142	39.7	4.09	
WS Gasoline Additives (GAD) (cat# 905)												
4370	T-amylmethylether (TAME)	µg/L	23.6	24.7	18.5 - 31.4	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.553	24.4	1.41	
4420	Tert-Butyl Alcohol	µg/L	36.9	39.7	23.7 - 55.3	Acceptable	EPA 524.3 1 2009	7/28/2015	-0.272	38.1	4.56	
5000	tert-Butyl methyl ether (MTBE)	µg/L	18.0	17.7	14.2 - 21.2	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.0210	18.0	1.01	
9375	Di-isopropylether (DIPE)	µg/L	18.4	18.6	15.1 - 23.2	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.0907	18.5	1.29	
4770	Ethyl-t-butylether (ETBE)	µg/L	30.9	31.6	25.0 - 40.8	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.738	32.7	2.47	
5175	Trichlorofluoromethane (Freon 11)	µg/L	42.3	41.5	24.9 - 58.1	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.488	43.7	2.85	
5185	Trichlorotrifluoroethane (Freon 113)	µg/L	37.8	40.0	26.7 - 53.3	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.459	39.7	4.09	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	7.46	7.12	5.70 - 8.54	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.777	6.95	0.661	
4400	Bromoform	µg/L	24.7	23.4	18.7 - 28.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.302	23.9	2.66	
4575	Chlorodibromomethane	µg/L	40.2	44.4	35.5 - 53.3	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.657	43.3	4.65	
4505	Chloroform	µg/L	42.4	40.3	32.2 - 48.4	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.699	39.9	3.61	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	7.01	7.12	5.70 - 8.54	Acceptable	EPA 524.3 1 2009	7/31/2015	0.0961	6.95	0.661	
4400	Bromoform	µg/L	21.2	23.4	18.7 - 28.1	Acceptable	EPA 524.3 1 2009	7/31/2015	-1.01	23.9	2.66	
4575	Chlorodibromomethane	µg/L	37.1	44.4	35.5 - 53.3	Acceptable	EPA 524.3 1 2009	7/31/2015	-1.32	43.3	4.65	
4505	Chloroform	µg/L	43.1	40.3	32.2 - 48.4	Acceptable	EPA 524.3 1 2009	7/31/2015	0.894	39.9	3.61	
WS Halomethanes (THMs) (cat# 842)												
4395	Bromodichloromethane	µg/L	6.72	7.12	5.70 - 8.54	Acceptable	EPA 551.1 1 1992	7/29/2015	-0.343	6.95	0.661	
4400	Bromoform	µg/L	24.4	23.4	18.7 - 28.1	Acceptable	EPA 551.1 1 1992	7/29/2015	0.189	23.9	2.66	
4575	Chlorodibromomethane	µg/L	44.6	44.4	35.5 - 53.3	Acceptable	EPA 551.1 1 1992	7/29/2015	0.289	43.3	4.65	
4505	Chloroform	µg/L	40.4	40.3	32.2 - 48.4	Acceptable	EPA 551.1 1 1992	7/29/2015	0.145	39.9	3.61	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	12.5	12.7	10.2 - 15.2	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.00237	12.5	1.13	
4455	Carbon tetrachloride	µg/L	11.4	10.4	8.32 - 12.5	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.922	10.4	1.12	
4475	Chlorobenzene	µg/L	6.92	7.33	4.40 - 10.3	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.764	7.35	0.563	
4610	1,2-Dichlorobenzene	µg/L	12.0	13.0	10.4 - 15.6	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.656	12.8	1.17	
4620	1,4-Dichlorobenzene	µg/L	13.0	13.7	11.0 - 16.4	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.0939	13.1	1.24	
4635	1,2-Dichloroethane	µg/L	6.25	6.69	4.01 - 9.37	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.881	6.70	0.512	
4640	1,1-Dichloroethylene	µg/L	7.18	7.08	4.25 - 9.91	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.256	7.39	0.840	
4645	cis-1,2-Dichloroethylene	µg/L	9.96	10.9	8.72 - 13.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.849	10.7	0.845	
4700	trans-1,2-Dichloroethylene	µg/L	14.6	14.7	11.8 - 17.6	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.156	14.8	1.34	
4655	1,2-Dichloropropane	µg/L	12.5	12.6	10.1 - 15.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.303	12.8	0.830	
4765	Ethylbenzene	µg/L	16.0	15.9	12.7 - 19.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.184	16.2	1.33	
4975	Methylene chloride (Dichloromethane)	µg/L	15.8	18.2	14.6 - 21.8	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.763	17.3	1.96	
5100	Styrene	µg/L	6.14	6.09	3.65 - 8.53	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.0286	6.16	0.596	
5115	Tetrachloroethylene	µg/L	14.0	14.6	11.7 - 17.5	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.144	14.1	0.956	
5140	Toluene	µg/L	8.88	9.59	5.75 - 13.4	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.740	9.38	0.679	
5155	1,2,4-Trichlorobenzene	µg/L	6.47	6.50	3.90 - 9.10	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.415	6.19	0.680	
5160	1,1,1-Trichloroethane	µg/L	11.4	11.6	9.28 - 13.9	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.251	11.1	1.03	
5165	1,1,2-Trichloroethane	µg/L	3.42	3.94	2.36 - 5.52	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-1.25	3.83	0.329	
5170	Trichloroethylene	µg/L	9.54	10.1	8.08 - 12.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.149	9.67	0.858	
5235	Vinyl chloride	µg/L	15.3	14.3	8.58 - 20.0	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.0370	15.4	2.44	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	31.0	30.2	24.2 - 36.2	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.0326	30.9	2.39	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840)												
4375	Benzene	µg/L	13.9	12.7	10.2 - 15.2	Acceptable	EPA 524.3 1 2009	7/31/2015	1.23	12.5	1.13	
4455	Carbon tetrachloride	µg/L	11.4	10.4	8.32 - 12.5	Acceptable	EPA 524.3 1 2009	7/31/2015	0.922	10.4	1.12	
4475	Chlorobenzene	µg/L	7.27	7.33	4.40 - 10.3	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.143	7.35	0.563	
4610	1,2-Dichlorobenzene	µg/L	12.5	13.0	10.4 - 15.6	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.228	12.8	1.17	
4620	1,4-Dichlorobenzene	µg/L	13.0	13.7	11.0 - 16.4	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.0939	13.1	1.24	
4635	1,2-Dichloroethane	µg/L	6.93	6.69	4.01 - 9.37	Acceptable	EPA 524.3 1 2009	7/31/2015	0.448	6.70	0.512	
4640	1,1-Dichloroethylene	µg/L	6.50	7.08	4.25 - 9.91	Acceptable	EPA 524.3 1 2009	8/4/2015	-1.06	7.39	0.840	
4645	cis-1,2-Dichloroethylene	µg/L	11.7	10.9	8.72 - 13.1	Acceptable	EPA 524.3 1 2009	7/31/2015	1.21	10.7	0.845	
4700	trans-1,2-Dichloroethylene	µg/L	13.9	14.7	11.8 - 17.6	Acceptable	EPA 524.3 1 2009	8/4/2015	-0.680	14.8	1.34	
4655	1,2-Dichloropropane	µg/L	12.7	12.6	10.1 - 15.1	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.0617	12.8	0.830	
4765	Ethylbenzene	µg/L	15.9	15.9	12.7 - 19.1	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.260	16.2	1.33	
4975	Methylene chloride (Dichloromethane)	µg/L	16.2	18.2	14.6 - 21.8	Acceptable	EPA 524.3 1 2009	8/4/2015	-0.559	17.3	1.96	
5100	Styrene	µg/L	6.10	6.09	3.65 - 8.53	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.0957	6.16	0.596	
5115	Tetrachloroethylene	µg/L	14.3	14.6	11.7 - 17.5	Acceptable	EPA 524.3 1 2009	7/31/2015	0.169	14.1	0.956	
5140	Toluene	µg/L	9.74	9.59	5.75 - 13.4	Acceptable	EPA 524.3 1 2009	7/31/2015	0.526	9.38	0.679	
5155	1,2,4-Trichlorobenzene	µg/L	6.25	6.50	3.90 - 9.10	Acceptable	EPA 524.3 1 2009	7/31/2015	0.0921	6.19	0.680	
5160	1,1,1-Trichloroethane	µg/L	12.0	11.6	9.28 - 13.9	Acceptable	EPA 524.3 1 2009	7/31/2015	0.832	11.1	1.03	
5165	1,1,2-Trichloroethane	µg/L	3.69	3.94	2.36 - 5.52	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.425	3.83	0.329	
5170	Trichloroethylene	µg/L	10.2	10.1	8.08 - 12.1	Acceptable	EPA 524.3 1 2009	7/31/2015	0.620	9.67	0.858	
5235	Vinyl chloride	µg/L	17.5	14.3	8.58 - 20.0	Acceptable	EPA 524.3 1 2009	7/31/2015	0.864	15.4	2.44	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Volatiles (cat# 840) (Continued)												
5260	Xylenes, total	µg/L	29.8	30.2	24.2 - 36.2	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.469	30.9	2.39	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	19.4	18.0	14.4 - 21.6	Acceptable	EPA 524.2 4.1 1995	8/4/2015	1.01	18.0	1.37	
4390	Bromochloromethane	µg/L	5.50	5.98	3.59 - 8.37	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.913	6.04	0.591	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
5000	tert-Butyl methyl ether (MTBE)	µg/L	9.32	9.80	5.88 - 13.7	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.514	9.78	0.898	
4435	n-Butylbenzene	µg/L	21.2	19.8	15.8 - 23.8	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.734	19.7	2.09	
4440	sec-Butylbenzene	µg/L	7.18	6.44	3.86 - 9.02	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.933	6.50	0.728	
4445	tert-Butylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
4485	Chloroethane	µg/L	15.2	14.8	8.88 - 20.7	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.307	15.9	2.23	
4960	Chloromethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
4535	2-Chlorotoluene	µg/L	3.97	3.78	2.27 - 5.29	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.124	3.93	0.356	
4540	4-Chlorotoluene	µg/L	4.00	3.87	2.32 - 5.42	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.198	4.09	0.476	
4595	Dibromomethane	µg/L	16.9	16.4	13.1 - 19.7	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.105	16.7	1.50	
4615	1,3-Dichlorobenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
4630	1,1-Dichloroethane	µg/L	7.36	7.38	4.43 - 10.3	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.150	7.48	0.783	
4660	1,3-Dichloropropane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
4665	2,2-Dichloropropane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
4670	1,1-Dichloropropene	µg/L	19.7	19.3	15.4 - 23.2	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.0849	19.5	2.35	
4680	cis-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
4685	trans-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	25.2	24.0	14.4 - 33.6	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.154	25.9	4.44	
4835	Hexachlorobutadiene	µg/L	18.3	17.3	13.8 - 20.8	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.261	17.7	2.31	
4900	Isopropylbenzene	µg/L	4.69	4.90	2.94 - 6.86	Acceptable	EPA 524.2 4.1 1995	8/4/2015	-0.400	4.90	0.513	
4910	4-Isopropyltoluene	µg/L	5.13	4.92	2.95 - 6.89	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.480	4.85	0.578	
5005	Naphthalene	µg/L	16.1	14.2	9.94 - 18.5	Acceptable	EPA 524.2 4.1 1995	8/4/2015	1.18	14.2	1.65	
5090	n-Propylbenzene	µg/L	10.5	9.38	5.63 - 13.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.939	9.60	0.958	
5105	1,1,1,2-Tetrachloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
5110	1,1,2,2-Tetrachloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.2 4.1 1995	8/4/2015				
5150	1,2,3-Trichlorobenzene	µg/L	21.1	19.7	15.8 - 23.6	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.422	20.4	1.72	
5180	1,2,3-Trichloropropane (TCP)	µg/L	16.3	15.7	12.6 - 18.8	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.0462	16.2	1.42	
5210	1,2,4-Trimethylbenzene	µg/L	5.65	5.44	3.26 - 7.62	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.560	5.32	0.582	
5215	1,3,5-Trimethylbenzene	µg/L	13.8	12.6	10.1 - 15.1	Acceptable	EPA 524.2 4.1 1995	8/4/2015	0.894	12.7	1.21	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841)												
4385	Bromobenzene	µg/L	17.9	18.0	14.4 - 21.6	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.0844	18.0	1.37	
4390	Bromochloromethane	µg/L	6.39	5.98	3.59 - 8.37	Acceptable	EPA 524.3 1 2009	7/31/2015	0.592	6.04	0.591	
4950	Bromomethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	8/4/2015				
5000	tert-Butyl methyl ether (MTBE)	µg/L	9.89	9.80	5.88 - 13.7	Acceptable	EPA 524.3 1 2009	7/31/2015	0.121	9.78	0.898	
4435	n-Butylbenzene	µg/L	19.6	19.8	15.8 - 23.8	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.0304	19.7	2.09	
4440	sec-Butylbenzene	µg/L	6.77	6.44	3.86 - 9.02	Acceptable	EPA 524.3 1 2009	7/31/2015	0.370	6.50	0.728	
4445	tert-Butylbenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				
4485	Chloroethane	µg/L	16.6	14.8	8.88 - 20.7	Acceptable	EPA 524.3 1 2009	7/31/2015	0.320	15.9	2.23	
4960	Chloromethane	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	7/31/2015				
4535	2-Chlorotoluene	µg/L	3.93	3.78	2.27 - 5.29	Acceptable	EPA 524.3 1 2009	7/31/2015	0.0116	3.93	0.356	
4540	4-Chlorotoluene	µg/L	3.83	3.87	2.32 - 5.42	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.556	4.09	0.476	
4595	Dibromomethane	µg/L	16.2	16.4	13.1 - 19.7	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.362	16.7	1.50	
4615	1,3-Dichlorobenzene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 3.00	0.00 - 3.00	Acceptable	EPA 524.3 1 2009	8/4/2015				
4630	1,1-Dichloroethane	µg/L	8.78	7.38	4.43 - 10.3	Acceptable	EPA 524.3 1 2009	7/31/2015	1.66	7.48	0.783	
4660	1,3-Dichloropropane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				
4665	2,2-Dichloropropane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				
4670	1,1-Dichloropropene	µg/L	22.1	19.3	15.4 - 23.2	Acceptable	EPA 524.3 1 2009	7/31/2015	1.11	19.5	2.35	
4680	cis-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				
4685	trans-1,3-Dichloropropene	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				

WS-228 2009 TNI Evaluation Final Complete Report

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Unregulated Volatiles (cat# 841) (Continued)												
5175	Fluorotrichloromethane	µg/L	25.4	24.0	14.4 - 33.6	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.109	25.9	4.44	
4835	Hexachlorobutadiene	µg/L	18.1	17.3	13.8 - 20.8	Acceptable	EPA 524.3 1 2009	7/31/2015	0.174	17.7	2.31	
4900	Isopropylbenzene	µg/L	5.20	4.90	2.94 - 6.86	Acceptable	EPA 524.3 1 2009	7/31/2015	0.594	4.90	0.513	
4910	4-Isopropyltoluene	µg/L	5.06	4.92	2.95 - 6.89	Acceptable	EPA 524.3 1 2009	7/31/2015	0.359	4.85	0.578	
5005	Naphthalene	µg/L	13.6	14.2	9.94 - 18.5	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.335	14.2	1.65	
5090	n-Propylbenzene	µg/L	9.62	9.38	5.63 - 13.1	Acceptable	EPA 524.3 1 2009	7/31/2015	0.0208	9.60	0.958	
5105	1,1,1,2-Tetrachloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				
5110	1,1,2,2-Tetrachloroethane	µg/L	< 0.50	< 1.20	0.00 - 1.20	Acceptable	EPA 524.3 1 2009	7/31/2015				
5150	1,2,3-Trichlorobenzene	µg/L	19.8	19.7	15.8 - 23.6	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.335	20.4	1.72	
5180	1,2,3-Trichloropropane (TCP)	µg/L	15.0	15.7	12.6 - 18.8	Acceptable	EPA 524.3 1 2009	7/31/2015	-0.867	16.2	1.42	
5210	1,2,4-Trimethylbenzene	µg/L	5.62	5.44	3.26 - 7.62	Acceptable	EPA 524.3 1 2009	7/31/2015	0.508	5.32	0.582	
5215	1,3,5-Trimethylbenzene	µg/L	12.8	12.6	10.1 - 15.1	Acceptable	EPA 524.3 1 2009	7/31/2015	0.0661	12.7	1.21	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	7.38	7.74	4.26 - 11.2	Acceptable	EPA 525.2 2 1995	7/27/2015	0.193	7.20	0.950	
7025	Aldrin	µg/L	1.31	1.60	0.719 - 2.04	Acceptable	EPA 525.2 2 1995	7/27/2015	0.206	1.23	0.382	
7065	Atrazine	µg/L	3.08	2.83	1.56 - 4.10	Acceptable	EPA 525.2 2 1995	7/27/2015	0.315	2.87	0.676	
7120	gamma-BHC (Lindane)	µg/L	2.40	2.24	1.23 - 3.25	Acceptable	EPA 525.2 2 1995	7/27/2015	0.523	2.29	0.217	
7130	Bromacil	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	7/27/2015				
7160	Butachlor	µg/L	9.69	8.62	4.74 - 12.5	Acceptable	EPA 525.2 2 1995	7/27/2015	1.24	8.51	0.948	
7410	Diazinon	µg/L	< 0.10	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	7/27/2015				
7470	Dieldrin	µg/L	1.59	1.63	0.896 - 2.36	Acceptable	EPA 525.2 2 1995	7/27/2015	-0.0551	1.60	0.256	
7540	Endrin	µg/L	1.29	1.22	0.854 - 1.59	Acceptable	EPA 525.2 2 1995	7/27/2015	0.340	1.20	0.276	
7685	Heptachlor	µg/L	1.86	1.88	1.03 - 2.73	Acceptable	EPA 525.2 2 1995	7/27/2015	0.386	1.74	0.322	
7690	Heptachlor epoxide (beta)	µg/L	0.534	0.582	0.320 - 0.844	Acceptable	EPA 525.2 2 1995	7/27/2015	-0.485	0.577	0.0891	
6275	Hexachlorobenzene	µg/L	0.723	0.803	0.378 - 1.03	Acceptable	EPA 525.2 2 1995	7/27/2015	0.132	0.710	0.0966	
6285	Hexachlorocyclopentadiene	µg/L	6.76	6.43	1.85 - 9.27	Acceptable	EPA 525.2 2 1995	7/27/2015	0.734	5.24	2.07	
7810	Methoxychlor	µg/L	18.2	16.0	8.80 - 23.2	Acceptable	EPA 525.2 2 1995	7/27/2015	1.42	15.1	2.22	
7835	Metolachlor	µg/L	14.4	13.7	7.54 - 19.9	Acceptable	EPA 525.2 2 1995	7/27/2015	0.498	13.3	2.23	
7845	Metribuzin	µg/L	8.36	8.11	4.06 - 12.2	Acceptable	EPA 525.2 2 1995	7/27/2015	0.316	7.52	2.66	
7875	Molinate (Ordram)	µg/L	16.8	16.0	9.23 - 22.0	Acceptable	EPA 525.2 2 1995	7/27/2015	0.828	12.3	5.39	
8035	Prometon	µg/L		2.65	0.808 - 3.68	Not Reported				2.68	0.969	
8045	Propachlor	µg/L	8.10	8.10	4.46 - 11.7	Acceptable	EPA 525.2 2 1995	7/27/2015	0.0945	7.98	1.22	
8125	Simazine	µg/L	11.5	10.7	5.88 - 15.5	Acceptable	EPA 525.2 2 1995	7/27/2015	0.537	9.54	3.65	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L	< 0.20	< 2.00	0.00 - 2.00	Acceptable	EPA 525.2 2 1995	7/27/2015				
8295	Trifluralin	µg/L	2.91	2.89	1.59 - 4.19	Acceptable	EPA 525.2 2 1995	7/27/2015	0.364	2.64	0.734	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850)												
7005	Alachlor	µg/L	7.68	7.74	4.26 - 11.2	Acceptable	EPA 505 2.1 1995	7/29/2015	0.508	7.20	0.950	
7025	Aldrin	µg/L	1.86	1.60	0.719 - 2.04	Acceptable	EPA 505 2.1 1995	7/29/2015	1.64	1.23	0.382	
7065	Atrazine	µg/L		2.83	1.56 - 4.10	Not Reported				2.87	0.676	
7120	gamma-BHC (Lindane)	µg/L	2.33	2.24	1.23 - 3.25	Acceptable	EPA 505 2.1 1995	7/29/2015	0.199	2.29	0.217	
7130	Bromacil	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7160	Butachlor	µg/L		8.62	4.74 - 12.5	Not Reported				8.51	0.948	
7410	Diazinon	µg/L		< 2.00	0.00 - 2.00	Not Reported						
7470	Dieldrin	µg/L	1.62	1.63	0.896 - 2.36	Acceptable	EPA 505 2.1 1995	7/29/2015	0.0623	1.60	0.256	
7540	Endrin	µg/L	1.22	1.22	0.854 - 1.59	Acceptable	EPA 505 2.1 1995	7/29/2015	0.0856	1.20	0.276	
7685	Heptachlor	µg/L	2.05	1.88	1.03 - 2.73	Acceptable	EPA 505 2.1 1995	7/29/2015	0.977	1.74	0.322	
7690	Heptachlor epoxide (beta)	µg/L	0.621	0.582	0.320 - 0.844	Acceptable	EPA 505 2.1 1995	7/29/2015	0.491	0.577	0.0891	
6275	Hexachlorobenzene	µg/L		0.803	0.378 - 1.03	Not Reported				0.710	0.0966	
6285	Hexachlorocyclopentadiene	µg/L		6.43	1.85 - 9.27	Not Reported				5.24	2.07	
7810	Methoxychlor	µg/L	16.2	16.0	8.80 - 23.2	Acceptable	EPA 505 2.1 1995	7/29/2015	0.517	15.1	2.22	
7835	Metolachlor	µg/L		13.7	7.54 - 19.9	Not Reported				13.3	2.23	
7845	Metribuzin	µg/L		8.11	4.06 - 12.2	Not Reported				7.52	2.66	
7875	Molinate (Ordram)	µg/L		16.0	9.23 - 22.0	Not Reported				12.3	5.39	
8035	Prometon	µg/L		2.65	0.808 - 3.68	Not Reported				2.68	0.969	
8045	Propachlor	µg/L		8.10	4.46 - 11.7	Not Reported				7.98	1.22	
8125	Simazine	µg/L		10.7	5.88 - 15.5	Not Reported				9.54	3.65	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Pesticides (cat# 850) (Continued)												
8220	Thiobencarb	µg/L		< 2.00	0.00 - 2.00	Not Reported						
8295	Trifluralin	µg/L		2.89	1.59 - 4.19	Not Reported				2.64	0.734	
WS Carbamate/Carbamoxyloxime Pesticides (cat# 846)												
7010	Aldicarb	µg/L	20.8	19.9	14.9 - 24.9	Acceptable	EPA 531.2 1 2001	7/24/2015	0.795	19.3	1.85	
7015	Aldicarb sulfone	µg/L	17.9	19.5	14.6 - 24.4	Acceptable	EPA 531.2 1 2001	7/24/2015	0.809	16.3	2.03	
7020	Aldicarb sulfoxide	µg/L	27.3	34.1	25.6 - 42.6	Acceptable	EPA 531.2 1 2001	7/24/2015	-0.530	29.1	3.43	
8080	Baygon	µg/L	94.1	98.4	80.0 - 117	Acceptable	EPA 531.2 1 2001	7/24/2015	0.0653	93.7	6.12	
7195	Carbaryl	µg/L	35.6	38.4	28.8 - 48.0	Acceptable	EPA 531.2 1 2001	7/24/2015	0.679	33.2	3.56	
7205	Carbofuran	µg/L	48.1	52.4	28.8 - 76.0	Acceptable	EPA 531.2 1 2001	7/24/2015	0.203	47.0	5.24	
7710	3-Hydroxycarbofuran	µg/L	28.2	29.7	23.8 - 35.6	Acceptable	EPA 531.2 1 2001	7/24/2015	0.0696	28.0	2.75	
7800	Methiocarb	µg/L	52.0	56.6	44.2 - 67.5	Acceptable	EPA 531.2 1 2001	7/24/2015	0.933	47.6	4.70	
7805	Methomyl	µg/L	23.2	24.3	19.4 - 29.2	Acceptable	EPA 531.2 1 2001	7/24/2015	-0.138	23.7	3.69	
7940	Oxamyl (vydate)	µg/L	99.2	99.6	74.7 - 124	Acceptable	EPA 531.2 1 2001	7/24/2015	0.718	92.1	9.94	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	9.43	9.25	5.09 - 13.4	Acceptable	EPA 525.2 2 1995	7/27/2015	0.809	8.32	1.38	
WS Chlordane (cat# 845)												
7250	Chlordane, technical	µg/L	9.86	9.25	5.09 - 13.4	Acceptable	EPA 505 2.1 1995	7/29/2015	1.12	8.32	1.38	
WS Toxaphene (cat# 844)												
8250	Toxaphene	µg/L	7.00	7.44	4.09 - 10.8	Acceptable	EPA 505 2.1 1995	7/29/2015	0.0929	6.89	1.14	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	0.895	0.822	0.493 - 1.15	Acceptable	EPA 504.1 1.1 1995	7/24/2015	0.276	0.859	0.131	
4585	Ethylene Dibromide (EDB)	µg/L	1.87	1.96	1.18 - 2.74	Acceptable	EPA 504.1 1.1 1995	7/24/2015	0.214	1.82	0.216	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.83	1.78	1.07 - 2.49	Acceptable	EPA 504.1 1.1 1995	7/24/2015	0.374	1.75	0.204	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	0.890	0.822	0.493 - 1.15	Acceptable	EPA 551.1 1 1992	7/24/2015	0.238	0.859	0.131	
4585	Ethylene Dibromide (EDB)	µg/L	1.79	1.96	1.18 - 2.74	Acceptable	EPA 551.1 1 1992	7/24/2015	-0.157	1.82	0.216	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.78	1.07 - 2.49	Not Reported				1.75	0.204	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L	0.870	0.822	0.493 - 1.15	Acceptable	EPA 8011 1994	7/24/2015	0.0850	0.859	0.131	
4585	Ethylene Dibromide (EDB)	µg/L	1.81	1.96	1.18 - 2.74	Acceptable	EPA 8011 1994	7/24/2015	-0.0647	1.82	0.216	
5180	1,2,3-Trichloropropane (TCP)	µg/L		1.78	1.07 - 2.49	Not Reported				1.75	0.204	
WS EDB/DBCP/TCP (cat# 847)												
4570	Dibromochloropropane (DBCP)	µg/L		0.822	0.493 - 1.15	Not Reported				0.859	0.131	
4585	Ethylene Dibromide (EDB)	µg/L		1.96	1.18 - 2.74	Not Reported				1.82	0.216	
5180	1,2,3-Trichloropropane (TCP)	µg/L	1.84	1.78	1.07 - 2.49	Acceptable	EPA 524.2 4.1 1995	8/13/2015	0.423	1.75	0.204	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	89.9	86.4	49.8 - 102	Acceptable	EPA 1613 1994	8/6/2015	1.25	78.4	9.23	
WS Dioxin (cat# 857)												
9618	2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/L	89.9	86.4	49.8 - 102	Acceptable	EPA 1613B Appendix A 1997	8/6/2015	1.25	78.4	9.23	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS PCBs as Decachlorobiphenyl (cat# 839)												
8880	Aroclor 1016	µg/L	< 0.08	< 0.260	0.00 - 0.260	Acceptable	EPA 505 2.1 1995	7/30/2015				
8885	Aroclor 1221	µg/L	< 0.10	< 0.190	0.00 - 0.190	Acceptable	EPA 505 2.1 1995	7/30/2015				
8890	Aroclor 1232	µg/L	2.57	2.09	1.02 - 2.78	Acceptable	EPA 505 2.1 1995	7/30/2015	1.43	2.26	0.216	
8895	Aroclor 1242	µg/L	< 0.10	< 0.260	0.00 - 0.260	Acceptable	EPA 505 2.1 1995	7/30/2015				
8900	Aroclor 1248	µg/L	< 0.10	< 0.300	0.00 - 0.300	Acceptable	EPA 505 2.1 1995	7/30/2015				
8905	Aroclor 1254	µg/L	< 0.10	< 0.330	0.00 - 0.330	Acceptable	EPA 505 2.1 1995	7/30/2015				
8910	Aroclor 1260	µg/L	< 0.10	< 0.360	0.00 - 0.360	Acceptable	EPA 505 2.1 1995	7/30/2015				
8872	PCB Aroclor Identity	Identity	1232	1232		Acceptable	EPA 505 2.1 1995	7/30/2015				
9105	PCB as Decachlorobiphenyl	µg/L		4.54	0.454 - 9.08	Not Reported				4.65	0.467	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848)												
5500	Acenaphthene	µg/L	4.80	4.68	2.33 - 5.87	Acceptable	EPA 525.2 2 1995	7/27/2015	1.17	4.38	0.362	
5505	Acenaphthylene	µg/L	2.62	2.88	1.36 - 3.87	Acceptable	EPA 525.2 2 1995	7/27/2015	0.165	2.55	0.439	
5555	Anthracene	µg/L	6.82	6.86	2.98 - 8.90	Acceptable	EPA 525.2 2 1995	7/27/2015	0.794	6.06	0.958	
5575	Benzo(a)anthracene	µg/L	6.86	7.45	4.10 - 9.44	Acceptable	EPA 525.2 2 1995	7/27/2015	0.277	6.61	0.909	
5585	Benzo(b)fluoranthene	µg/L	3.98	3.91	2.08 - 5.38	Acceptable	EPA 525.2 2 1995	7/27/2015	0.474	3.75	0.482	
5600	Benzo(k)fluoranthene	µg/L	7.49	6.75	3.66 - 9.14	Acceptable	EPA 525.2 2 1995	7/27/2015	1.23	6.60	0.724	
5590	Benzo(g,h,i)perylene	µg/L	3.34	2.89	1.31 - 4.13	Acceptable	EPA 525.2 2 1995	7/27/2015	0.649	2.98	0.559	
5580	Benzo(a)pyrene	µg/L	0.579	0.634	0.189 - 0.878	Acceptable	EPA 525.2 2 1995	7/27/2015	0.190	0.559	0.105	
5670	Butylbenzylphthalate	µg/L	39.4	33.1	18.0 - 48.1	Acceptable	EPA 525.2 2 1995	7/27/2015	0.367	37.0	6.61	
5855	Chrysene	µg/L	1.74	1.74	0.995 - 2.23	Acceptable	EPA 525.2 2 1995	7/27/2015	-0.0248	1.74	0.115	
5895	Dibenz(a,h)anthracene	µg/L	5.74	5.15	2.39 - 7.40	Acceptable	EPA 525.2 2 1995	7/27/2015	0.0976	5.57	1.71	
6070	Diethylphthalate	µg/L	50.8	41.7	22.4 - 59.0	Acceptable	EPA 525.2 2 1995	7/27/2015	1.24	39.5	9.11	
6135	Dimethylphthalate	µg/L	31.5	25.2	12.1 - 34.6	Acceptable	EPA 525.2 2 1995	7/27/2015	1.38	23.4	5.85	
5925	Di-n-butylphthalate	µg/L	58.7	46.4	25.3 - 66.7	Acceptable	EPA 525.2 2 1995	7/27/2015	1.82	50.1	4.71	
6200	Di-n-octylphthalate	µg/L	23.7	21.6	10.7 - 30.2	Acceptable	EPA 525.2 2 1995	7/27/2015	-0.706	29.3	7.93	
6062	bis(2-Ethylhexyl)adipate	µg/L	44.0	35.0	22.3 - 45.6	Acceptable	EPA 525.2 2 1995	7/27/2015	1.13	30.7	11.8	
6065	bis(2-Ethylhexyl)phthalate	µg/L	41.6	33.4	16.9 - 47.3	Acceptable	EPA 525.2 2 1995	7/27/2015	0.854	31.3	12.1	
6265	Fluoranthene	µg/L	5.36	5.10	2.46 - 6.88	Acceptable	EPA 525.2 2 1995	7/27/2015	0.410	5.14	0.544	
6270	Fluorene	µg/L	1.42	1.35	0.787 - 1.73	Acceptable	EPA 525.2 2 1995	7/27/2015	0.147	1.40	0.136	
6315	Indeno(1,2,3-cd)pyrene	µg/L	6.10	5.97	2.60 - 8.54	Acceptable	EPA 525.2 2 1995	7/27/2015	0.196	5.87	1.20	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Regulated Semivolatiles Ampule #1 (cat# 848) (Continued)												
5005	Naphthalene	µg/L	7.14	7.04	2.85 - 8.99	Acceptable	EPA 525.2 2 1995	7/27/2015	0.869	6.32	0.948	
6615	Phenanthrene	µg/L	9.43	9.29	5.91 - 11.7	Acceptable	EPA 525.2 2 1995	7/27/2015	0.885	8.82	0.691	
6665	Pyrene	µg/L	8.71	8.54	5.10 - 11.0	Acceptable	EPA 525.2 2 1995	7/27/2015	0.772	8.25	0.596	
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L	19.2	19.2	9.60 - 28.8	Acceptable	EPA 515.4 1 2000	7/29/2015	1.54	16.6	1.66	
8530	Bentazon	µg/L	50.1	50.9	26.4 - 69.2	Acceptable	EPA 515.4 1 2000	7/29/2015	0.911	44.8	5.79	
8540	Chloramben	µg/L		21.6	5.79 - 29.3	Not Reported				19.4	3.11	
8545	2,4-D	µg/L	11.0	11.5	5.75 - 17.2	Acceptable	EPA 515.4 1 2000	7/29/2015	-0.290	11.3	1.04	
8550	Dacthal diacid (DCPA)	µg/L	22.9	26.4	9.82 - 42.8	Acceptable	EPA 515.4 1 2000	7/29/2015	-0.572	24.8	3.32	
8555	Dalapon	µg/L	36.2	37.6	18.8 - 56.4	Acceptable	EPA 515.4 1 2000	7/29/2015	0.519	32.9	6.44	
8560	2,4-DB	µg/L	37.5	30.2	15.1 - 45.3	Acceptable	EPA 515.4 1 2000	7/29/2015	1.71	28.4	5.33	
8595	Dicamba	µg/L	29.4	28.9	14.4 - 43.4	Acceptable	EPA 515.4 1 2000	7/29/2015	0.789	27.3	2.64	
8600	3,5-Dichlorobenzoic acid	µg/L	14.1	14.2	6.77 - 18.8	Acceptable	EPA 515.4 1 2000	7/29/2015	0.880	12.6	1.76	
8605	Dichlorprop	µg/L	36.0	35.6	16.3 - 49.1	Acceptable	EPA 515.4 1 2000	7/29/2015	1.41	29.7	4.50	
8620	Dinoseb	µg/L	28.1	31.0	10.8 - 43.4	Acceptable	EPA 515.4 1 2000	7/29/2015	0.450	25.2	6.37	
6500	4-Nitrophenol	µg/L		37.2	3.72 - 50.2	Not Reported				21.2	0.00	
6605	Pentachlorophenol	µg/L	25.3	23.7	11.8 - 35.6	Acceptable	EPA 515.4 1 2000	7/29/2015	0.709	22.7	3.72	
8645	Picloram	µg/L	16.6	17.2	8.60 - 25.8	Acceptable	EPA 515.4 1 2000	7/29/2015	-0.0717	16.9	3.73	
8655	2,4,5-T	µg/L	27.9	27.6	13.8 - 41.4	Acceptable	EPA 515.4 1 2000	7/29/2015	1.23	24.0	3.13	
8650	2,4,5-TP (Silvex)	µg/L	16.8	18.4	9.20 - 27.6	Acceptable	EPA 515.4 1 2000	7/29/2015	0.505	15.6	2.46	

WS-228 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WS Chlorinated Acid Herbicides (cat# 851)												
8505	Acifluorfen	µg/L		19.2	9.60 - 28.8	Not Reported				16.6	1.66	
8530	Bentazon	µg/L		50.9	26.4 - 69.2	Not Reported				44.8	5.79	
8540	Chloramben	µg/L		21.6	5.79 - 29.3	Not Reported				19.4	3.11	
8545	2,4-D	µg/L		11.5	5.75 - 17.2	Not Reported				11.3	1.04	
8550	Dacthal diacid (DCPA)	µg/L		26.4	9.82 - 42.8	Not Reported				24.8	3.32	
8555	Dalapon	µg/L		37.6	18.8 - 56.4	Not Reported				32.9	6.44	
8560	2,4-DB	µg/L		30.2	15.1 - 45.3	Not Reported				28.4	5.33	
8595	Dicamba	µg/L		28.9	14.4 - 43.4	Not Reported				27.3	2.64	
8600	3,5-Dichlorobenzoic acid	µg/L		14.2	6.77 - 18.8	Not Reported				12.6	1.76	
8605	Dichlorprop	µg/L		35.6	16.3 - 49.1	Not Reported				29.7	4.50	
8620	Dinoseb	µg/L		31.0	10.8 - 43.4	Not Reported				25.2	6.37	
6500	4-Nitrophenol	µg/L		37.2	3.72 - 50.2	Not Reported				21.2	0.00	
6605	Pentachlorophenol	µg/L	22.6	23.7	11.8 - 35.6	Acceptable	EPA 525.2 2 1995	7/27/2015	-0.0164	22.7	3.72	
8645	Picloram	µg/L		17.2	8.60 - 25.8	Not Reported				16.9	3.73	
8655	2,4,5-T	µg/L		27.6	13.8 - 41.4	Not Reported				24.0	3.13	
8650	2,4,5-TP (Silvex)	µg/L		18.4	9.20 - 27.6	Not Reported				15.6	2.46	
WS Regulated Semivolatiles #2 Herbicides (cat# 849)												
9390	Diquat	µg/L	9.34	12.5	6.25 - 18.8	Acceptable	EPA 549.2 1 1997	8/18/2015	-0.0240	9.40	2.69	
7525	Endothall	µg/L	195	211	106 - 316	Acceptable	EPA 548.1 1 1992	7/28/2015	-0.138	200	35.5	
9411	Glyphosate	µg/L	415	398	318 - 478	Acceptable	EPA 547 1990	7/27/2015	0.382	401	36.6	
9528	Paraquat	µg/L	28.0	39.3	17.2 - 49.3	Acceptable	EPA 549.2 1 1997	8/18/2015	0.0235	27.9	3.04	

CERTIFICATE OF RECOGNITION

ERA congratulates

Eurofins Eaton Analytical, Inc - Monrovia

WS-228

For your participation and successful evaluation, we recognize the performance of this laboratory for achieving acceptable evaluation in the following standards.

Carbamate/Carbamoxyloxime Pesticides	Chloral Hydrate	Chlordane	Color	Corrosivity
Cyanide	Dioxin	EDB/DBCP/TCP	Gasoline Additives (GAD)	Haloacetic Acids (HAA)
Halomethanes (THMs)	Inorganic Disinfection #2	Mercury	Metals	MicrobE™ (Coliforms)
Nitrite	o-Phosphate Nutrients	Organic Carbon	PCBs as Decachlorobiphenyl	Perchlorate
Pesticides	pH	Regulated Semivolatiles #2 Herbicides	Regulated Semivolatiles Ampule #1	Regulated Volatiles
Residual Chlorine	Silica	Surfactants - MBAS	Toxaphene	Turbidity
Unregulated Volatiles	UV 254 Absorbance	WS SourceWatR™ MicrobE™		

Kristina Sanchez
Quality Officer

M327601

eurofins | Eaton Analytical

October 2, 2015

Gary K. Ward
ORELAP Administrator
Environmental Laboratory Accreditation Program
Oregon State Public Health Laboratory
3150 NW 229th Avenue, Suite 100
Hillsboro, OR 97124

RE: Eurofins Eaton Analytical - ORELAP Certificate No. 4034
EPA ID: CA00006
ERA WS-228, July PT Study Corrective Action Report

Dear Mr. Ward,

Please find attached EEAI's corrective action report for the Hexavalent Chromium by SM 3500-Cr-B that failed ERA WS-228, July 2015 Full PT study.

Hexavalent Chromium by SM 3500 CR-B will no longer be reported for WS PT studies. It is a wastewater method.

If you have any questions, please call me at 626-386-1117 or our QA Officer, Nilda Cox, at 626-386-1170. Our email addresses are NildaCox@eurofinsus.com and AlmaCapati@eurofinsus.com.

Thank you.

Sincerely,

Alma Capati
QA Assistant

Corrective Action Report

For Not Acceptable Value Reported

PT Study: **ERA WS-228 July 2015 PT Study**

Corrective Action Report No.: 1

eurofins | Eaton Analytical

Sample Information		
Department:	Inorganics	
Method(s):	SM 3500-Cr B	
Analyte(s):	Hexavalent Chromium	
Sample ID:	WS Hexavalent Chromium	
Sample No.:	201507130079	
Group No.:	542926	
Date Analyzed:	7/17/2015	
Analyst:	Michael Tang	
Reported Value:	13.0	ug/L
True Value:	16.6	ug/L
% Recovery:	78%	
Acceptance Limits:		13.3-19.9 ug/l (80-120%)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	98
LCS2	108
RPD_LCS	10
MS	80
MSD	72
RPD_MS	10

Problem Identification (Root Cause Analysis)

	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed	x	Other
	Calculation Error		
	Lab Contamination		
	Log in Error		
	Training		
	Reporting Error		

SM 3500-Cr B is a wastewater method but was certifiable in Nevada for drinking water until July 2014. Lab was certified in Nevada for SM 3500-Cr B in DW up to July 2014.

Internal QC Check

Result = _____ ug/L

Spike Value = _____ ug/L

% Recovery =

Acceptance Limits ug/L

Evaluation = _____

Corrective Action Taken To Prevent Reoccurrence of Problem:

Hexavalent Chromium by SM 3500-Cr B will no longer be reported for WS PT studies since the method is no longer approved by Nevada for drinking water certification. 'Hexavalent Chromium Total', the code for SM 3500CrB will not be logged in WS PT studies.

Follow-up Schedule / Track Progress:

Nevada deleted Hexavalent Chromium by SM 3500-Cr B from their drinking water certification and thus will no longer be reported for WS PT studies since our NV DW certification does not include SM 3500 Cr-B. Review scope of our states' certifications every time PT studies are to be reported.

Analyst : Michael Tang Date: 10/1/15

Technical Manager: Walter Hsieh Date: 9/30/15

Quality Manager: Nilda Cox Date: 09/29/2015

Laboratory Director: Dennis Lecke Date: 10/1/15

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

RAD-102 Final Report

RadCheM™ Proficiency Testing

RadCheM™ Study

Reference Date: 07/07/15

Open Date: 07/07/15

Close Date: 08/21/15

Report Issued Date: 08/25/15

RAD-102 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID:	**CA00006**
ERA Customer Number:	**M327601**
Report Issued:	**08/25/15**
Study Dates:	**07/07/15 - 08/21/15**

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **RAD-102**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

RAD Results

RAD-102 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/25/15
Study Dates: 07/07/15 - 08/21/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	36.3	34.5	17.7 - 44.5	Acceptable	SM 7110 C (GPC) 22nd ED 2011	7/29/2015	0.466	33.4	6.25	
2840	Gross Beta	pCi/L		25.1	15.6 - 33.1	Not Reported				24.1	2.68	
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	36.3	34.5	17.7 - 44.5	Acceptable	SM 7110 C (GPC)-1996 1996	7/29/2015	0.466	33.4	6.25	
2840	Gross Beta	pCi/L		25.1	15.6 - 33.1	Not Reported				24.1	2.68	
RAD GroSS™ Alpha/Beta (cat# 809)												
2830	Gross Alpha	pCi/L	30.8	34.5	17.7 - 44.5	Acceptable	EPA 900.0 GPC 1980	7/27/2015	-0.414	33.4	6.25	
2840	Gross Beta	pCi/L	21.5	25.1	15.6 - 33.1	Acceptable	EPA 900.0 GPC 1980	7/27/2015	-0.964	24.1	2.68	
RAD NaturalS™ (cat# 811)												
2965	Radium-226	pCi/L	12.2	15.2	11.3 - 17.4	Acceptable	GA Ra-226/228 1.2 2004	8/11/2015	-1.29	14.2	1.59	
2970	Radium-228	pCi/L	4.68	5.21	3.13 - 6.95	Acceptable	GA Ra-226/228 1.2 2004	8/11/2015	-1.00	5.37	0.686	
3055	Uranium (Nat)	pCi/L		24.0	19.3 - 27.0	Not Reported				23.1	1.01	
3055	Uranium (Nat) mass	µg/L	32.8	35.0	28.1 - 39.4	Acceptable	EPA 200.8 5.4 1994	8/3/2015	-0.938	34.5	1.77	

CERTIFICATE OF EXCELLENCE

In recognition of the quality of your laboratory in proficiency testing for

RAD-102

Eurofins Eaton Analytical, Inc - Monrovia

is issued this certificate of achievement by ERA. This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 40 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

GroSS™ Alpha/Beta

NaturalS™

Kristina Sanchez
Quality Officer

M327601

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

WP-240 Final Report

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 01/12/15

Close Date: 02/26/15

Report Issued Date: 03/02/15

ERA
A Waters Company

March 2, 2015

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016

Enclosed is your final report for ERA's WP-240 WatR™Pollution Proficiency Testing (PT) study. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All analytes in ERA's WP-240 WatR™Pollution Proficiency Testing study have been evaluated using the following tiered approach. If the analyte is listed in the current TNI Fields of Proficiency Testing (FoPT) tables, the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the current TNI FoPT tables. If the analyte is not included in the TNI FoPT tables, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260).

Corrective Action Help: As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a Supplemental (QuiK™Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting your routine data quality. Our laboratory and technical staff have many years of collective experience in performing the full range of environmental analyses. As part of our technical support, ERA offers QC samples that can be useful in helping you work through your technical issues.

At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than “0.” In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with "Not Acceptable" evaluations.

Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

Thank you for your participation in ERA's WP-240 WatR™Pollution Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Kristina Sanchez
Quality Officer

attachments

Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
ACLASS	Bill Hirt / 703-836-0025 x 226	All Analytes	2009 TNI
Arizona	Ali Mayfield / (602) 364-0728	All Analytes	2009 TNI
California ELAP	Fred Choske / 510-620-3175	All Analytes	2009 TNI
California WRB (DMRQA)	Renee Spears / 916-341-5583	All Analytes	2009 TNI
Guam	Rodolfo Paulino / 671-475-1655	All Analytes	2009 TNI
Mariana Island	Clarissa T. Bearden / 670-664-8520	All Analytes	2009 TNI
Nevada	Sara Rairick / 775-687-9490	All Analytes	2003 NELAC
New Jersey	Rachel Ellis / 609-777-1749	All Analytes	2009 TNI
New York	ELAP Office / 518-485-5570	All Analytes	2003 NELAC
Oregon	Gary Ward / 503-693-4122	All Analytes	2009 TNI

WP-240 Definitions & Study Discussion

Study Dates: 01/12/15 - 02/26/15 **Report Issued: 03/02/15**

WP Study Definitions

The Reported Value is the value that the laboratory reported to ERA.

The ERA Assigned Values are compliant with the most current TNI Fields of Proficiency Testing (FoPT) tables. A parameter not added to the standard is given an Assigned Value of "< PTRL" per the guidelines contained in the 2009 TNI Standards. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT standards.

The Acceptance Limits are established per the criteria contained in the most current USEPA/NELAC FoPT tables, or ERA's SOP for the Generation of Performance Acceptance Limits™ as applicable.

The Performance Evaluation:

Acceptable	= Reported Value falls within the Acceptance Limits.
Not Acceptable	= Reported Value falls outside the Acceptance Limits.
No Evaluation	= Reported Value cannot be evaluated.
Not Reported	= No Value reported.

The Method Description is the method the laboratory reported to ERA.

WP Study Discussion

ERA's WP-240 WatR™Pollution Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI PT Standard and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) tables.

ERA's WP-240 WatR™Pollution study standards were examined for any anomalies. A full review of all homogeneity, stability and accuracy verification data was completed. All analytical verification data for all analytes met the acceptance criteria contained in the 2009 TNI PT Standard and the criteria contained in the most current TNI FoPT tables.

The data submitted by participating laboratories was also examined for study anomalies. There were no anomalies observed during the statistical review of the data.

ERA's WP-240 WatR™Pollution study reports shall not be reproduced except in their entirety and not without the permission of the participating laboratories. The report must not be used by the participating laboratories to claim product endorsement by any agency of the U. S. government.

The data contained herein are confidential and intended for your use only.

If you have any questions or concerns regarding your assessment in ERA's WatR™Pollution Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.

WP-240 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
WP Volatile Solids (cat# 884)							
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM 2540 E-1997 1997
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM 2540 E-2011 2011
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM2540E 22nd ED 2011
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	EPA 160.4 1979
WP Simple Nutrients (cat# 584)							
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	EPA 365.1 2 1993
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM 4500-P E-1999 1999
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM 4500-P E-2011 2011
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM4500P E 22nd ED 2011

ERA
A Waters Company

Final Report Results For Laboratory
Eurofins Eaton Analytical, Inc - Monrovia

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-240**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	39.4	40.7	34.6 - 46.8	Acceptable	SM 2320 B-1997 1997	1/22/2015	-0.722	40.8	1.91	
1575	Chloride	mg/L	91.4	98.6	86.5 - 111	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-1.35	96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	SM 2510 B-1997 1997	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	SM 4500-F C-1997 1997	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L	33.9	35.6	28.5 - 42.7	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.135	34.1	1.83	
1155	Sodium	mg/L	81.5	81.5	65.2 - 97.8	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.440	79.6	4.24	
2000	Sulfate	mg/L	33.6	35.3	28.7 - 40.7	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.0945	33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM 2540 C-1997 1997	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM 2540 B-1997 1997	1/22/2015	1.11	318	17.8	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	39.4	40.7	34.6 - 46.8	Acceptable	SM 2320 B-2011 2011	1/22/2015	-0.722	40.8	1.91	
1575	Chloride	mg/L	91.4	98.6	86.5 - 111	Acceptable	EPA 9056 1994	1/22/2015	-1.35	96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	SM 2510 B-2011 2011	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	SM 4500-F C-2011 2011	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L	33.9	35.6	28.5 - 42.7	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.135	34.1	1.83	
1155	Sodium	mg/L	81.5	81.5	65.2 - 97.8	Acceptable	EPA 6010B 2 1996	1/23/2015	0.440	79.6	4.24	
2000	Sulfate	mg/L	33.6	35.3	28.7 - 40.7	Acceptable	EPA 9056 1994	1/22/2015	-0.0945	33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM 2540 C-2011 2011	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM 2510 B-2011 2011	1/22/2015	1.11	318	17.8	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	39.4	40.7	34.6 - 46.8	Acceptable	SM2320B 22nd ED 2011	1/22/2015	-0.722	40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	SM2510B 22nd ED 2011	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	SM4500F- C 22nd ED 2011	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM2540C 22nd ED 2011	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM2540B 22nd ED 2011	1/22/2015	1.11	318	17.8	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		40.7	34.6 - 46.8	Not Reported				40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	EPA 120.1 1982	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.23	3.33	2.69 - 3.83	Acceptable	EPA 300.0 2.1 1993	2/11/2015	-0.0328	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM2540C 20th ED 1997	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM2540B 20th ED 1997	1/22/2015	1.11	318	17.8	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		40.7	34.6 - 46.8	Not Reported				40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	EPA 9050A 1 1996	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.23	3.33	2.69 - 3.83	Acceptable	EPA 9056 1994	2/11/2015	-0.0328	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L		322	277 - 367	Not Reported				310	17.1	
1950	Total Solids at 105°C	mg/L		328	283 - 373	Not Reported				318	17.8	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		40.7	34.6 - 46.8	Not Reported				40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm		506	455 - 557	Not Reported				513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	EPA 9214 1996	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L		322	277 - 367	Not Reported				310	17.1	
1950	Total Solids at 105°C	mg/L		328	283 - 373	Not Reported				318	17.8	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	74.0	76.4	62.1 - 85.3	Acceptable	SM 2540 D-1997 1997	1/16/2015	0.706	70.2	5.33	
1035	Calcium	mg/L	36.1	35.5	30.2 - 40.8	Acceptable	EPA 200.7 4.4 1994	1/20/2015	0.485	35.2	1.84	
1085	Magnesium	mg/L	19.8	19.2	16.3 - 22.1	Acceptable	EPA 200.7 4.4 1994	1/20/2015	0.707	19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.884	166	7.01	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	74.0	76.4	62.1 - 85.3	Acceptable	SM 2540 D-2011 2011	1/16/2015	0.706	70.2	5.33	
1035	Calcium	mg/L	36.1	35.5	30.2 - 40.8	Acceptable	EPA 6010B 2 1996	1/20/2015	0.485	35.2	1.84	
1085	Magnesium	mg/L	19.8	19.2	16.3 - 22.1	Acceptable	EPA 6010B 2 1996	1/20/2015	0.707	19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	EPA 6010B 2 1996	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	EPA 6010B 2 1996	1/21/2015	0.884	166	7.01	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	74.0	76.4	62.1 - 85.3	Acceptable	SM2540D 22nd ED 2011	1/16/2015	0.706	70.2	5.33	
1035	Calcium	mg/L		35.5	30.2 - 40.8	Not Reported				35.2	1.84	
1085	Magnesium	mg/L		19.2	16.3 - 22.1	Not Reported				19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	SM 2340 B-1997 1997	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	SM 2340 B-1997 1997	1/21/2015	0.884	166	7.01	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		76.4	62.1 - 85.3	Not Reported				70.2	5.33	
1035	Calcium	mg/L		35.5	30.2 - 40.8	Not Reported				35.2	1.84	
1085	Magnesium	mg/L		19.2	16.3 - 22.1	Not Reported				19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	SM2340B 22nd ED 2011	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	SM2340B 22nd ED 2011	1/21/2015	0.884	166	7.01	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		76.4	62.1 - 85.3	Not Reported				70.2	5.33	
1035	Calcium	mg/L		35.5	30.2 - 40.8	Not Reported				35.2	1.84	
1085	Magnesium	mg/L		19.2	16.3 - 22.1	Not Reported				19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	SM 2340 B-2011 2011	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	SM 2340 B-2011 2011	1/21/2015	0.884	166	7.01	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	SM 4500-H+ B-2011 2011	1/22/2015	0.166	6.70	0.0464	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	SM4500H+ B 22nd ED 2011	1/22/2015	0.166	6.70	0.0464	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	SM 4500-H+ B-2000 2000	1/22/2015	0.166	6.70	0.0464	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	EPA 9040B 2 1995	1/22/2015	0.166	6.70	0.0464	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	26.0	26.3	21.4 - 33.5	Acceptable	SM 2540 F-2011 2011	1/21/2015	-0.801	27.4	1.80	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	26.0	26.3	21.4 - 33.5	Acceptable	SM 2540 F-1997 1997	1/21/2015	-0.801	27.4	1.80	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	26.0	26.3	21.4 - 33.5	Acceptable	SM2540F 22nd ED 2011	1/21/2015	-0.801	27.4	1.80	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM 2540 E-1997 1997	1/20/2015	2.85	199	27.6	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM 2540 E-2011 2011	1/20/2015	2.85	199	27.6	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM2540E 22nd ED 2011	1/20/2015	2.85	199	27.6	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	EPA 160.4 1979	1/20/2015	2.85	199	27.6	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	EPA 350.1 2 1993	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L	13.7	14.0	11.7 - 16.2	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.482	14.1	0.911	
1810	Nitrate as N	mg/L	13.7	14.0	11.6 - 16.3	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.482	14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	EPA 365.1 2 1993	1/22/2015	2.54	1.04	0.0777	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	SM 4500-NH3 H-2011 2011	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L	13.7	14.0	11.7 - 16.2	Acceptable	EPA 9056 1994	1/22/2015	-0.482	14.1	0.911	
1810	Nitrate as N	mg/L	13.7	14.0	11.6 - 16.3	Acceptable	EPA 9056 1994	1/22/2015	-0.482	14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM 4500-P E-1999 1999	1/22/2015	2.54	1.04	0.0777	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	SM4500NH3 H 20th ED 1997	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L	13.5	14.0	11.7 - 16.2	Acceptable	EPA 353.2 2 1993	2/17/2015	-0.702	14.1	0.911	
1810	Nitrate as N	mg/L	13.5	14.0	11.6 - 16.3	Acceptable	EPA 353.2 2 1993	2/17/2015	-0.694	14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM 4500-P E-2011 2011	1/22/2015	2.54	1.04	0.0777	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	SM4500NH3 H 22nd ED 2011	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L		14.0	11.7 - 16.2	Not Reported				14.1	0.911	
1810	Nitrate as N	mg/L		14.0	11.6 - 16.3	Not Reported				14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM4500P E 22nd ED 2011	1/22/2015	2.54	1.04	0.0777	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L	9.94	10.3	7.55 - 12.9	Acceptable	EPA 351.2 2 1993	1/23/2015	-0.375	10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	EPA 365.1 2 1993	1/28/2015	-0.887	4.92	0.267	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		10.3	7.55 - 12.9	Not Reported				10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	SM 4500-P E-1999 1999	1/28/2015	-0.887	4.92	0.267	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		10.3	7.55 - 12.9	Not Reported				10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	SM4500P E 20th ED 1997	1/28/2015	-0.887	4.92	0.267	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		10.3	7.55 - 12.9	Not Reported				10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	SM4500P E 22nd ED 2011	1/28/2015	-0.887	4.92	0.267	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.21	2.13	1.81 - 2.45	Acceptable	EPA 300.0 2.1 1993	1/15/2015	0.549	2.14	0.129	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.13	2.13	1.81 - 2.45	Acceptable	EPA 353.2 2 1993	1/16/2015	-0.0717	2.14	0.129	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.22	2.13	1.81 - 2.45	Acceptable	EPA 300.1 1 2000	1/15/2015	0.627	2.14	0.129	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.21	2.13	1.81 - 2.45	Acceptable	EPA 9056 1994	1/15/2015	0.549	2.14	0.129	
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM 5210 B-2001 2001	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM 5210 B-2001 2001	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM 5220 D-1997 1997	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM 5310 C-2000 2000	2/4/2015	0.269	56.2	3.44	
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM 5210 B-2011 2011	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM 5210 B-2011 2011	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM 5220 D-2011 2011	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM 5310 C-2011 2011	2/4/2015	0.269	56.2	3.44	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM5210B 22nd ED 2011	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM5210B 22nd ED 2011	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM5220D 22nd ED 2011	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM5310C 22nd ED 2011	2/4/2015	0.269	56.2	3.44	
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM5210B 21st ED 2001	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM5210B 21st ED 2001	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM5220D 21st ED 1997	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM5310C 20th ED 1996	2/4/2015	0.269	56.2	3.44	
WP Demand (cat# 578)												
1530	BOD	mg/L		86.2	46.0 - 126	Not Reported				87.0	13.2	
1555	CBOD	mg/L		78.0	35.9 - 120	Not Reported				79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	EPA 410.4 2 1993	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	EPA 9060A 2002	2/4/2015	0.269	56.2	3.44	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1720	1810	1500 - 2080	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.946	1810	98.7	
1005	Antimony	µg/L	127	131	91.2 - 165	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.276	129	8.49	
1010	Arsenic	µg/L	285	304	249 - 357	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.00	299	14.4	
1015	Barium	µg/L	362	372	316 - 428	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.610	372	16.2	
1020	Beryllium	µg/L	181	186	158 - 214	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.353	185	10.3	
1025	Boron	µg/L		1540	1310 - 1770	Not Reported				1520	98.1	
1030	Cadmium	µg/L	659	673	572 - 774	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.339	669	29.1	
1040	Chromium	µg/L	455	483	411 - 555	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.42	484	20.3	
1050	Cobalt	µg/L	730	747	635 - 859	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.35	782	38.9	
1055	Copper	µg/L	189	201	171 - 231	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.984	200	11.6	
1070	Iron	µg/L		1930	1640 - 2220	Not Reported				1950	83.7	
1075	Lead	µg/L	273	285	242 - 328	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.937	286	14.0	
1090	Manganese	µg/L	1090	1130	960 - 1300	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.30	1160	57.7	
1100	Molybdenum	µg/L	128	140	116 - 162	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.90	139	5.87	
1105	Nickel	µg/L	1140	1280	1130 - 1440	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.87	1260	64.4	
1140	Selenium	µg/L	279	299	254 - 344	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.03	299	19.1	
1150	Silver	µg/L	267	257	218 - 296	Acceptable	EPA 200.8 5.4 1994	1/23/2015	0.635	258	14.0	
1160	Strontium	µg/L		110	93.5 - 126	Not Reported				112	5.32	
1165	Thallium	µg/L	544	567	468 - 656	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.691	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.558	249	10.2	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	736	769	654 - 884	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.880	772	40.9	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1730	1810	1500 - 2080	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.845	1810	98.7	
1005	Antimony	µg/L	143	131	91.2 - 165	Acceptable	EPA 200.7 4.4 1994	1/28/2015	1.61	129	8.49	
1010	Arsenic	µg/L		304	249 - 357	Not Reported				299	14.4	
1015	Barium	µg/L	371	372	316 - 428	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0533	372	16.2	
1020	Beryllium	µg/L	185	186	158 - 214	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0335	185	10.3	
1025	Boron	µg/L	1520	1540	1310 - 1770	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0109	1520	98.1	
1030	Cadmium	µg/L	615	673	572 - 774	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-1.85	669	29.1	
1040	Chromium	µg/L	480	483	411 - 555	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.189	484	20.3	
1050	Cobalt	µg/L	782	747	635 - 859	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0126	782	38.9	
1055	Copper	µg/L	193	201	171 - 231	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.640	200	11.6	
1070	Iron	µg/L	1910	1930	1640 - 2220	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.493	1950	83.7	
1075	Lead	µg/L	287	285	242 - 328	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0654	286	14.0	
1090	Manganese	µg/L	1170	1130	960 - 1300	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0915	1160	57.7	
1100	Molybdenum	µg/L	137	140	116 - 162	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.370	139	5.87	
1105	Nickel	µg/L	1290	1280	1130 - 1440	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.458	1260	64.4	
1140	Selenium	µg/L		299	254 - 344	Not Reported				299	19.1	
1150	Silver	µg/L	247	257	218 - 296	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.794	258	14.0	
1160	Strontium	µg/L	111	110	93.5 - 126	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.206	112	5.32	
1165	Thallium	µg/L	562	567	468 - 656	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.138	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.558	249	10.2	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	775	769	654 - 884	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0735	772	40.9	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1730	1810	1500 - 2080	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.845	1810	98.7	
1005	Antimony	µg/L	143	131	91.2 - 165	Acceptable	EPA 6010B 2 1996	1/28/2015	1.61	129	8.49	
1010	Arsenic	µg/L		304	249 - 357	Not Reported				299	14.4	
1015	Barium	µg/L	371	372	316 - 428	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.0533	372	16.2	
1020	Beryllium	µg/L	185	186	158 - 214	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0335	185	10.3	
1025	Boron	µg/L	1520	1540	1310 - 1770	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.0109	1520	98.1	
1030	Cadmium	µg/L	615	673	572 - 774	Acceptable	EPA 6010B 2 1996	1/23/2015	-1.85	669	29.1	
1040	Chromium	µg/L	480	483	411 - 555	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.189	484	20.3	
1050	Cobalt	µg/L	782	747	635 - 859	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.0126	782	38.9	
1055	Copper	µg/L	193	201	171 - 231	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.640	200	11.6	
1070	Iron	µg/L	1910	1930	1640 - 2220	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.493	1950	83.7	
1075	Lead	µg/L	287	285	242 - 328	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0654	286	14.0	
1090	Manganese	µg/L	1170	1130	960 - 1300	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0915	1160	57.7	
1100	Molybdenum	µg/L	137	140	116 - 162	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.370	139	5.87	
1105	Nickel	µg/L	1290	1280	1130 - 1440	Acceptable	EPA 6010B 2 1996	1/23/2015	0.458	1260	64.4	
1140	Selenium	µg/L		299	254 - 344	Not Reported				299	19.1	
1150	Silver	µg/L	247	257	218 - 296	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.794	258	14.0	
1160	Strontium	µg/L	111	110	93.5 - 126	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.206	112	5.32	
1165	Thallium	µg/L	562	567	468 - 656	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.138	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.558	249	10.2	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	775	769	654 - 884	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0735	772	40.9	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1720	1810	1500 - 2080	Acceptable	EPA 6020 0 1994	1/22/2015	-0.946	1810	98.7	
1005	Antimony	µg/L	127	131	91.2 - 165	Acceptable	EPA 6020 0 1994	1/22/2015	-0.276	129	8.49	
1010	Arsenic	µg/L	285	304	249 - 357	Acceptable	EPA 6020 0 1994	1/22/2015	-1.00	299	14.4	
1015	Barium	µg/L	362	372	316 - 428	Acceptable	EPA 6020 0 1994	1/22/2015	-0.610	372	16.2	
1020	Beryllium	µg/L	181	186	158 - 214	Acceptable	EPA 6020 0 1994	1/22/2015	-0.353	185	10.3	
1025	Boron	µg/L		1540	1310 - 1770	Not Reported				1520	98.1	
1030	Cadmium	µg/L	659	673	572 - 774	Acceptable	EPA 6020 0 1994	1/22/2015	-0.339	669	29.1	
1040	Chromium	µg/L	455	483	411 - 555	Acceptable	EPA 6020 0 1994	1/22/2015	-1.42	484	20.3	
1050	Cobalt	µg/L	730	747	635 - 859	Acceptable	EPA 6020 0 1994	1/22/2015	-1.35	782	38.9	
1055	Copper	µg/L	189	201	171 - 231	Acceptable	EPA 6020 0 1994	1/22/2015	-0.984	200	11.6	
1070	Iron	µg/L		1930	1640 - 2220	Not Reported				1950	83.7	
1075	Lead	µg/L	273	285	242 - 328	Acceptable	EPA 6020 0 1994	1/22/2015	-0.937	286	14.0	
1090	Manganese	µg/L	1090	1130	960 - 1300	Acceptable	EPA 6020 0 1994	1/22/2015	-1.30	1160	57.7	
1100	Molybdenum	µg/L	128	140	116 - 162	Acceptable	EPA 6020 0 1994	1/22/2015	-1.90	139	5.87	
1105	Nickel	µg/L	1140	1280	1130 - 1440	Acceptable	EPA 6020 0 1994	1/22/2015	-1.87	1260	64.4	
1140	Selenium	µg/L	279	299	254 - 344	Acceptable	EPA 6020 0 1994	1/22/2015	-1.03	299	19.1	
1150	Silver	µg/L	267	257	218 - 296	Acceptable	EPA 6020 0 1994	1/23/2015	0.635	258	14.0	
1160	Strontium	µg/L		110	93.5 - 126	Not Reported				112	5.32	
1165	Thallium	µg/L	544	567	468 - 656	Acceptable	EPA 6020 0 1994	1/22/2015	-0.691	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 6020 0 1994	1/22/2015	-0.558	249	10.2	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	736	769	654 - 884	Acceptable	EPA 6020 0 1994	1/22/2015	-0.880	772	40.9	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.93	7.72	5.40 - 10.0	Acceptable	EPA 245.1 3 1994	2/2/2015	1.72	7.60	0.776	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.93	7.72	5.40 - 10.0	Acceptable	EPA 7470A 1 1994	2/2/2015	1.72	7.60	0.776	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	EPA 218.6 3.3 1994	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	278	282	234 - 328	Acceptable	SM 3500-Cr B-2009 2009	1/21/2015	-0.194	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	278	282	234 - 328	Acceptable	SM 3500-Cr B-2011 2011	1/21/2015	-0.194	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	SM 3500-Cr C-2009 2009	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	SM 3500-Cr C-2011 2011	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	EPA 7199 1996	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	278	282	234 - 328	Acceptable	EPA 7196A 1 1992	1/21/2015	-0.194	281	14.4	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	748	755	528 - 982	Acceptable	EPA 200.7 4.4 1994	2/5/2015	-0.261	759	40.7	
1180	Titanium	µg/L	277	276	235 - 317	Acceptable	EPA 200.7 4.4 1994	2/5/2015	0.0818	276	12.1	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	748	755	528 - 982	Acceptable	EPA 6010B 2 1996	2/5/2015	-0.261	759	40.7	
1180	Titanium	µg/L	277	276	235 - 317	Acceptable	EPA 6010B 2 1996	2/5/2015	0.0818	276	12.1	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	790	755	528 - 982	Acceptable	EPA 200.8 5.4 1994	2/5/2015	0.771	759	40.7	
1180	Titanium	µg/L	290	276	235 - 317	Acceptable	EPA 200.8 5.4 1994	2/5/2015	1.15	276	12.1	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	790	755	528 - 982	Acceptable	EPA 6020 1994	2/5/2015	0.771	759	40.7	
1180	Titanium	µg/L	290	276	235 - 317	Acceptable	EPA 6020 1994	2/5/2015	1.15	276	12.1	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM 2120 B-2001 2001	1/16/2015	-0.718	32.9	4.06	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM2120B 22nd ED 2011	1/16/2015	-0.718	32.9	4.06	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM 2120 B-2011 2011	1/16/2015	-0.718	32.9	4.06	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	EPA 180.1 2 1993	1/20/2015	-0.568	8.16	0.449	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	SM 2130 B-2001 2001	1/20/2015	-0.568	8.16	0.449	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	SM 2130 B-2011 2011	1/20/2015	-0.568	8.16	0.449	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	SM2130B 22nd ED 2011	1/20/2015	-0.568	8.16	0.449	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	EPA 335.4 1993	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	SM 4500-CN F-2011 2011	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	SM4500CN F 22nd ED 2011	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	SM4500CN F 20th ED 1997	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	EPA 9012B 2002	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.867	0.804	0.523 - 1.09	Acceptable	OIA 1677 2004	2/10/2015	1.45	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	2.90	2.77	1.41 - 4.13	Acceptable	EPA 420.1 1978	1/22/2015	-0.211	3.02	0.584	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	2.90	2.77	1.41 - 4.13	Acceptable	EPA 420.4 1 1993	1/22/2015	-0.211	3.02	0.584	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	2.90	2.77	1.41 - 4.13	Acceptable	EPA 9066 1986	1/22/2015	-0.211	3.02	0.584	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	194	189	142 - 236	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.598	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	194	189	142 - 236	Acceptable	EPA 6010B 2 1996	1/21/2015	0.598	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	185	189	142 - 236	Acceptable	SM 4500-SiO2 C-2011 2011	1/19/2015	-0.0469	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	185	189	142 - 236	Acceptable	SM 4500-SiO2 C-1997 1997	1/19/2015	-0.0469	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	185	189	142 - 236	Acceptable	SM4500SiO2 C 22nd ED 2011	1/19/2015	-0.0469	186	14.0	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	EPA 376.2 1978	1/24/2015	-0.159	6.88	1.27	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	SM 4500-S2 D-2000 2000	1/24/2015	-0.159	6.88	1.27	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	SM 4500-S2 D-2011 2011	1/24/2015	-0.159	6.88	1.27	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	SM4500S2- D 22nd ED 2011	1/24/2015	-0.159	6.88	1.27	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.943	0.887	0.551 - 1.28	Acceptable	SM 5540 C-2000 2000	1/27/2015	0.426	0.898	0.106	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.943	0.887	0.551 - 1.28	Acceptable	SM 5540 C-2011 2011	1/27/2015	0.426	0.898	0.106	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.943	0.887	0.551 - 1.28	Acceptable	SM5540C 22nd ED 2011	1/27/2015	0.426	0.898	0.106	
WP Boron (cat# 886)												
1025	Boron	µg/L	883	909	773 - 1050	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.344	913	88.3	
WP Boron (cat# 886)												
1025	Boron	µg/L	883	909	773 - 1050	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.344	913	88.3	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	3.51	3.49	2.78 - 4.16	Acceptable	EPA 300.0 2.1 1993	1/23/2015	-0.0309	3.52	0.196	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	3.49	3.49	2.78 - 4.16	Acceptable	EPA 300.1 1 2000	1/23/2015	-0.133	3.52	0.196	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	3.51	3.49	2.78 - 4.16	Acceptable	EPA 9056 1994	1/23/2015	-0.0309	3.52	0.196	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.41	1.39	1.03 - 1.65	Acceptable	SM 4500-Cl G-2000 2000	1/20/2015	0.448	1.37	0.0918	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.41	1.39	1.03 - 1.65	Acceptable	SM 4500-Cl G-2011 2011	1/20/2015	0.448	1.37	0.0918	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.41	1.39	1.03 - 1.65	Acceptable	SM4500Cl G 22nd ED 2011	1/20/2015	0.448	1.37	0.0918	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-240**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	1300	911	282 - 2000	Acceptable	SM 9221 B-2006 2006	2/19/2015	1.92	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL	1300	911	80.3 - 3420	Acceptable	SM 9221 E + C-2006 2006	2/19/2015	1.40	524	556	
2525	E.coli (MPN)	MPN/100mL	1300	911	273 - 2030	Acceptable	SM 9221 B.1 + F-2006 2006	2/19/2015	1.90	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	1300	911	282 - 2000	Acceptable	SM9221B 22nd ED 2006	2/19/2015	1.92	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL	1300	911	80.3 - 3420	Acceptable	SM9221C 22nd ED 2006	2/19/2015	1.40	524	556	
2525	E.coli (MPN)	MPN/100mL	1300	911	273 - 2030	Acceptable	SM9221F 22nd ED 2006	2/19/2015	1.90	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM 9223 B-2004 2004	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM 9223 B-2004 2004	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM9223 COLILERT 22nd ED 2004	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM9223 COLILERT 22nd ED 2004	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM9223 COLert18 22nd ED 2004	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM9223 COLert18 22nd ED 2004	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM9223 COLert18 21st ED 1997	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM9223 COLert18 21st ED 1997	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	816	911	282 - 2000	Acceptable	SM9223 COLertQT 20th ED 1998	1/28/2015	0.228	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	816	911	273 - 2030	Acceptable	SM9223 COLertQT 20th ED 1998	1/28/2015	0.246	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	980	911	282 - 2000	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	1/29/2015	0.803	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	980	911	273 - 2030	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	1/29/2015	0.807	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	980	911	282 - 2000	Acceptable	SM9223 COLt18QT 21st ED 2005	1/29/2015	0.803	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	980	911	273 - 2030	Acceptable	SM9223 COLt18QT 21st ED 2005	1/29/2015	0.807	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	816	911	282 - 2000	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	1/28/2015	0.228	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	816	911	273 - 2030	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	1/28/2015	0.246	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		385	172 - 651	Not Reported				334	79.8	
2520	Enterococci (MPN)	MPN/100mL	490	422	108 - 1030	Acceptable	SM 9230 B-2007 2007	1/27/2015	1.02	333	154	
2540	Fecal Streptococci (MF)	CFU/100mL		385	5.00 - 7550	Not Reported				192	1260	
2540	Fecal Streptococci (MPN)	MPN/100mL	490	422	148 - 1020	Acceptable	SM 9230 B-2007 2007	1/27/2015	0.705	388	145	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)

2520	Enterococci (MF)	CFU/100mL		385	172 - 651	Not Reported				334	79.8	
2520	Enterococci (MPN)	MPN/100mL	490	422	108 - 1030	Acceptable	SM9230B 22nd ED	1/27/2015	1.02	333	154	
2540	Fecal Streptococci (MF)	CFU/100mL		385	5.00 - 7550	Not Reported				192	1260	
2540	Fecal Streptococci (MPN)	MPN/100mL	490	422	148 - 1020	Acceptable	SM9230B 22nd ED	1/27/2015	0.705	388	145	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)

2520	Enterococci (MF)	CFU/100mL		385	172 - 651	Not Reported				334	79.8	
2520	Enterococci (MPN)	MPN/100mL	411	422	108 - 1030	Acceptable	SM 9230 D Enterolert®	1/28/2015	0.508	333	154	
2540	Fecal Streptococci (MF)	CFU/100mL		385	5.00 - 7550	Not Reported				192	1260	
2540	Fecal Streptococci (MPN)	MPN/100mL	411	422	148 - 1020	Acceptable	SM 9230 D Enterolert®	1/28/2015	0.160	388	145	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-240**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	54.1	52.6	12.9 - 87.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.538	49.9	7.81	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4375	Benzene	µg/L	60.2	56.8	39.8 - 73.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.718	56.0	5.87	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4395	Bromodichloromethane	µg/L	38.7	28.3	17.0 - 39.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015	3.35	28.4	3.08	
4400	Bromoform	µg/L	37.9	33.0	19.8 - 46.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.09	32.7	4.74	
4950	Bromomethane	µg/L	23.6	24.0	9.60 - 38.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.510	20.6	5.86	
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	48.8	42.6	28.1 - 58.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.985	44.1	4.73	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4455	Carbon tetrachloride	µg/L	47.8	53.9	30.1 - 73.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.423	51.1	7.88	
4475	Chlorobenzene	µg/L	38.1	34.5	24.2 - 44.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.01	34.5	3.57	
4575	Chlorodibromomethane	µg/L	71.5	66.0	39.6 - 92.4	Acceptable	EPA 624 Appendix A 1982	1/27/2015	0.581	67.4	7.12	
4485	Chloroethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/22/2015				
4505	Chloroform	µg/L	53.1	51.6	36.1 - 67.1	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.105	52.6	5.18	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		64.4	38.6 - 90.2	Not Reported				63.7	9.96	
4585	1,2-Dibromoethane (EDB)	µg/L		< 6.50	0.00 - 6.50	Not Reported						
4595	Dibromomethane	µg/L	49.3	41.6	27.0 - 56.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.53	42.3	4.53	
4610	1,2-Dichlorobenzene	µg/L	29.4	33.2	23.2 - 43.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.719	32.1	3.77	
4615	1,3-Dichlorobenzene	µg/L	37.6	38.3	26.8 - 49.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.176	36.8	4.58	
4620	1,4-Dichlorobenzene	µg/L	34.5	34.3	24.0 - 44.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.484	32.7	3.77	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4630	1,1-Dichloroethane	µg/L	22.3	22.0	14.0 - 30.3	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.122	22.0	2.33	
4635	1,2-Dichloroethane	µg/L	< 0.50	< 10.6	0.00 - 10.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4645	cis-1,2-Dichloroethylene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4700	trans-1,2-Dichloroethylene	µg/L	20.0	19.0	11.4 - 26.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.174	19.6	2.20	
4655	1,2-Dichloropropane	µg/L	26.6	25.8	18.1 - 33.5	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.293	25.8	2.61	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	31.8	27.4	17.8 - 37.0	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.59	26.4	3.40	
4685	trans-1,3-Dichloropropylene	µg/L	36.6	37.2	24.2 - 50.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.846	33.2	3.99	
4765	Ethylbenzene	µg/L	25.4	25.8	18.1 - 33.5	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.119	25.1	2.64	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	47.2	49.6	20.5 - 76.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.0101	47.3	6.64	
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4995	4-Methyl-2-pentanone (MIBK)	µg/L	31.0	31.8	9.38 - 52.3	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.0939	30.6	4.27	
5005	Naphthalene	µg/L		23.5	10.4 - 33.8	Not Reported				21.0	3.31	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	< 0.50	< 13.0	0.00 - 13.0	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5105	1,1,1,2-Tetrachloroethane	µg/L	< 0.50	< 9.80	0.00 - 9.80	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5110	1,1,2,2-Tetrachloroethane	µg/L	37.8	31.2	20.3 - 42.1	Acceptable	EPA 624 Appendix A 1982	1/23/2015	2.09	30.6	3.45	
5115	Tetrachloroethylene	µg/L	23.8	26.1	13.7 - 34.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.146	23.3	3.71	
5140	Toluene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		21.6	7.41 - 29.6	Not Reported				19.4	3.28	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5165	1,1,2-Trichloroethane	µg/L	59.4	54.5	38.2 - 70.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.858	55.5	4.53	
5170	Trichloroethylene	µg/L	62.9	60.9	38.7 - 79.5	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.466	60.3	5.67	
5175	Trichlorofluoromethane	µg/L	19.3	20.1	8.04 - 32.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.102	18.9	4.06	
5180	1,2,3-Trichloropropane (TCP)	µg/L	47.1	38.6	15.9 - 59.4	Acceptable	EPA 624 Appendix A 1982	1/27/2015	1.33	39.4	5.83	
5210	1,2,4-Trimethylbenzene	µg/L		42.0	27.3 - 56.7	Not Reported				40.7	5.24	
5215	1,3,5-Trimethylbenzene	µg/L		52.4	34.1 - 70.7	Not Reported				49.7	6.67	
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5240	m&p-Xylene	µg/L	49.9	52.2	31.3 - 73.1	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.330	51.7	5.32	
5250	o-Xylene	µg/L	33.1	34.6	20.8 - 48.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.206	33.8	3.60	
5260	Xylenes, total	µg/L	83.0	86.8	52.1 - 122	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.269	85.5	9.21	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	54.1	52.6	12.9 - 87.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.538	49.9	7.81	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4375	Benzene	µg/L	60.2	56.8	39.8 - 73.8	Acceptable	EPA 8260B 2 1996	1/23/2015	0.718	56.0	5.87	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4395	Bromodichloromethane	µg/L	38.7	28.3	17.0 - 39.6	Acceptable	EPA 8260B 2 1996	1/23/2015	3.35	28.4	3.08	
4400	Bromoform	µg/L	37.9	33.0	19.8 - 46.2	Acceptable	EPA 8260B 2 1996	1/23/2015	1.09	32.7	4.74	
4950	Bromomethane	µg/L	23.6	24.0	9.60 - 38.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.510	20.6	5.86	
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	48.8	42.6	28.1 - 58.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.985	44.1	4.73	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4455	Carbon tetrachloride	µg/L	47.8	53.9	30.1 - 73.2	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.423	51.1	7.88	
4475	Chlorobenzene	µg/L	38.1	34.5	24.2 - 44.8	Acceptable	EPA 8260B 2 1996	1/23/2015	1.01	34.5	3.57	
4575	Chlorodibromomethane	µg/L	71.5	66.0	39.6 - 92.4	Acceptable	EPA 8260B 2 1996	1/27/2015	0.581	67.4	7.12	
4485	Chloroethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	1/23/2015				

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/22/2015				
4505	Chloroform	µg/L	53.1	51.6	36.1 - 67.1	Acceptable	EPA 8260B 2 1996	1/23/2015	0.105	52.6	5.18	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		64.4	38.6 - 90.2	Not Reported				63.7	9.96	
4585	1,2-Dibromoethane (EDB)	µg/L		< 6.50	0.00 - 6.50	Not Reported						
4595	Dibromomethane	µg/L	49.3	41.6	27.0 - 56.2	Acceptable	EPA 8260B 2 1996	1/23/2015	1.53	42.3	4.53	
4610	1,2-Dichlorobenzene	µg/L	29.4	33.2	23.2 - 43.2	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.719	32.1	3.77	
4615	1,3-Dichlorobenzene	µg/L	37.6	38.3	26.8 - 49.8	Acceptable	EPA 8260B 2 1996	1/23/2015	0.176	36.8	4.58	
4620	1,4-Dichlorobenzene	µg/L	34.5	34.3	24.0 - 44.6	Acceptable	EPA 8260B 2 1996	1/23/2015	0.484	32.7	3.77	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4630	1,1-Dichloroethane	µg/L	22.3	22.0	14.0 - 30.3	Acceptable	EPA 8260B 2 1996	1/23/2015	0.122	22.0	2.33	
4635	1,2-Dichloroethane	µg/L	< 0.50	< 10.6	0.00 - 10.6	Acceptable	EPA 8260B 2 1996	1/23/2015				
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 8260B 2 1996	1/23/2015				
4645	cis-1,2-Dichloroethylene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4700	trans-1,2-Dichloroethylene	µg/L	20.0	19.0	11.4 - 26.6	Acceptable	EPA 8260B 2 1996	1/23/2015	0.174	19.6	2.20	
4655	1,2-Dichloropropane	µg/L	26.6	25.8	18.1 - 33.5	Acceptable	EPA 8260B 2 1996	1/23/2015	0.293	25.8	2.61	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	31.8	27.4	17.8 - 37.0	Acceptable	EPA 8260B 2 1996	1/23/2015	1.59	26.4	3.40	
4685	trans-1,3-Dichloropropylene	µg/L	36.6	37.2	24.2 - 50.2	Acceptable	EPA 8260B 2 1996	1/23/2015	0.846	33.2	3.99	
4765	Ethylbenzene	µg/L	25.4	25.8	18.1 - 33.5	Acceptable	EPA 8260B 2 1996	1/23/2015	0.119	25.1	2.64	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	47.2	49.6	20.5 - 76.8	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.0101	47.3	6.64	
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4995	4-Methyl-2-pentanone (MIBK)	µg/L	31.0	31.8	9.38 - 52.3	Acceptable	EPA 8260B 2 1996	1/23/2015	0.0939	30.6	4.27	
5005	Naphthalene	µg/L		23.5	10.4 - 33.8	Not Reported				21.0	3.31	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	< 0.50	< 13.0	0.00 - 13.0	Acceptable	EPA 8260B 2 1996	1/23/2015				
5105	1,1,1,2-Tetrachloroethane	µg/L	< 0.50	< 9.80	0.00 - 9.80	Acceptable	EPA 8260B 2 1996	1/23/2015				
5110	1,1,2,2-Tetrachloroethane	µg/L	37.8	31.2	20.3 - 42.1	Acceptable	EPA 8260B 2 1996	1/23/2015	2.09	30.6	3.45	
5115	Tetrachloroethylene	µg/L	23.8	26.1	13.7 - 34.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.146	23.3	3.71	
5140	Toluene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		21.6	7.41 - 29.6	Not Reported				19.4	3.28	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5165	1,1,2-Trichloroethane	µg/L	59.4	54.5	38.2 - 70.8	Acceptable	EPA 8260B 2 1996	1/23/2015	0.858	55.5	4.53	
5170	Trichloroethylene	µg/L	62.9	60.9	38.7 - 79.5	Acceptable	EPA 8260B 2 1996	1/23/2015	0.466	60.3	5.67	
5175	Trichlorofluoromethane	µg/L	19.3	20.1	8.04 - 32.2	Acceptable	EPA 8260B 2 1996	1/23/2015	0.102	18.9	4.06	
5180	1,2,3-Trichloropropane (TCP)	µg/L	47.1	38.6	15.9 - 59.4	Acceptable	EPA 8260B 2 1996	1/27/2015	1.33	39.4	5.83	
5210	1,2,4-Trimethylbenzene	µg/L		42.0	27.3 - 56.7	Not Reported				40.7	5.24	
5215	1,3,5-Trimethylbenzene	µg/L		52.4	34.1 - 70.7	Not Reported				49.7	6.67	
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5240	m&p-Xylene	µg/L	49.9	52.2	31.3 - 73.1	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.330	51.7	5.32	
5250	o-Xylene	µg/L	33.1	34.6	20.8 - 48.4	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.206	33.8	3.60	
5260	Xylenes, total	µg/L	83.0	86.8	52.1 - 122	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.269	85.5	9.21	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	13.9	21.6	7.99 - 27.2	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.00	17.1	3.16	
5505	Acenaphthylene	µg/L	15.2	23.1	7.63 - 28.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.06	19.4	3.92	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5555	Anthracene	µg/L	19.7	30.0	12.5 - 39.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.10	23.9	3.80	
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5575	Benzo(a)anthracene	µg/L	26.9	36.5	16.6 - 45.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.760	30.5	4.77	
5585	Benzo(b)fluoranthene	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5600	Benzo(k)fluoranthene	µg/L	< 5.00	< 7.70	0.00 - 7.70	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5590	Benzo(g,h,i)perylene	µg/L	15.3	18.6	8.19 - 25.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.544	17.0	3.21	
5580	Benzo(a)pyrene	µg/L	< 5.00	< 2.40	0.00 - 2.40	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5630	Benzyl alcohol	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5660	4-Bromophenyl-phenylether	µg/L	69.3	103	42.7 - 130	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.10	82.3	11.8	
5670	Butylbenzylphthalate	µg/L	42.3	57.9	15.9 - 78.1	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.807	49.9	9.45	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5765	bis(2-Chloroethyl)ether	µg/L	65.0	91.3	23.8 - 110	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.188	67.6	13.9	
5780	bis(2-Chloroisopropyl)ether	µg/L	< 10.0	< 3.10	0.00 - 3.10	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	< 5.00	< 6.30	0.00 - 6.30	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5825	4-Chlorophenyl-phenylether	µg/L	< 5.00	< 9.90	0.00 - 9.90	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5855	Chrysene	µg/L	15.0	17.4	8.87 - 24.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.424	16.1	2.52	
5895	Dibenz(a,h)anthracene	µg/L	17.7	23.2	8.09 - 34.2	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.789	20.9	4.01	
5905	Dibenzofuran	µg/L	< 5.00	< 11.3	0.00 - 11.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5925	Di-n-butylphthalate	µg/L	< 10.0	< 15.8	0.00 - 15.8	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
4610	1,2-Dichlorobenzene	µg/L		44.2	4.42 - 55.7	Not Reported				27.2	8.06	
4615	1,3-Dichlorobenzene	µg/L		149	14.9 - 172	Not Reported				85.1	29.2	
4620	1,4-Dichlorobenzene	µg/L		31.5	4.52 - 38.4	Not Reported				18.9	6.04	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6070	Diethylphthalate	µg/L	< 5.00	< 8.90	0.00 - 8.90	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6135	Dimethylphthalate	µg/L	< 5.00	< 11.5	0.00 - 11.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6185	2,4-Dinitrotoluene	µg/L	59.2	96.6	40.3 - 119	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.36	78.7	14.4	
6190	2,6-Dinitrotoluene	µg/L	45.3	72.6	29.5 - 87.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.41	61.3	11.4	
6200	Di-n-octylphthalate	µg/L	23.9	32.4	8.93 - 49.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.761	28.5	6.11	
6065	bis(2-Ethylhexyl)phthalate	µg/L	74.2	92.2	31.3 - 123	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.622	83.4	14.8	
6265	Fluoranthene	µg/L	< 5.00	< 15.6	0.00 - 15.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6270	Fluorene	µg/L	30.3	45.5	19.4 - 57.4	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.21	38.3	6.60	
6275	Hexachlorobenzene	µg/L	57.8	87.8	39.2 - 105	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.35	71.6	10.2	
4835	Hexachlorobutadiene	µg/L	34.8	61.4	6.14 - 76.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.0230	34.5	13.5	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
4840	Hexachloroethane	µg/L	< 5.00	< 3.30	0.00 - 3.30	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6315	Indeno(1,2,3-cd)pyrene	µg/L	27.1	34.7	10.5 - 48.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.416	29.5	5.68	
6320	Isophorone	µg/L	51.3	99.4	36.3 - 124	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.05	65.0	13.0	
6385	2-Methylnaphthalene	µg/L	22.0	35.6	5.98 - 47.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.987	27.6	5.68	
5005	Naphthalene	µg/L	40.1	63.3	15.0 - 77.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.420	44.4	10.3	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6465	3-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6470	4-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5015	Nitrobenzene	µg/L	36.7	63.6	20.6 - 76.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.10	47.7	9.96	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6535	N-Nitrosodiphenylamine	µg/L	< 5.00	< 5.60	0.00 - 5.60	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	41.5	72.0	23.2 - 90.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.35	55.9	10.6	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	41.7	60.4	28.2 - 74.2	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.15	49.2	6.50	
6665	Pyrene	µg/L	22.5	30.4	13.0 - 40.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.12	27.4	4.38	
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	34.8	61.6	9.78 - 75.8	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.372	38.9	11.1	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	13.9	21.6	7.99 - 27.2	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.00	17.1	3.16	
5505	Acenaphthylene	µg/L	15.2	23.1	7.63 - 28.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.06	19.4	3.92	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5555	Anthracene	µg/L	19.7	30.0	12.5 - 39.0	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.10	23.9	3.80	
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 8270C 3 1996	1/23/2015				
5575	Benzo(a)anthracene	µg/L	26.9	36.5	16.6 - 45.7	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.760	30.5	4.77	
5585	Benzo(b)fluoranthene	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 8270C 3 1996	1/23/2015				
5600	Benzo(k)fluoranthene	µg/L	< 5.00	< 7.70	0.00 - 7.70	Acceptable	EPA 8270C 3 1996	1/23/2015				
5590	Benzo(g,h,i)perylene	µg/L	15.3	18.6	8.19 - 25.7	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.544	17.0	3.21	
5580	Benzo(a)pyrene	µg/L	< 5.00	< 2.40	0.00 - 2.40	Acceptable	EPA 8270C 3 1996	1/23/2015				
5630	Benzyl alcohol	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5660	4-Bromophenyl-phenylether	µg/L	69.3	103	42.7 - 130	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.10	82.3	11.8	
5670	Butylbenzylphthalate	µg/L	42.3	57.9	15.9 - 78.1	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.807	49.9	9.45	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 8270C 3 1996	1/23/2015				
5765	bis(2-Chloroethyl)ether	µg/L	65.0	91.3	23.8 - 110	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.188	67.6	13.9	
5780	bis(2-Chloroisopropyl)ether	µg/L	< 10.0	< 3.10	0.00 - 3.10	Acceptable	EPA 8270C 3 1996	1/23/2015				
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	< 5.00	< 6.30	0.00 - 6.30	Acceptable	EPA 8270C 3 1996	1/23/2015				
5825	4-Chlorophenyl-phenylether	µg/L	< 5.00	< 9.90	0.00 - 9.90	Acceptable	EPA 8270C 3 1996	1/23/2015				
5855	Chrysene	µg/L	15.0	17.4	8.87 - 24.3	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.424	16.1	2.52	
5895	Dibenz(a,h)anthracene	µg/L	17.7	23.2	8.09 - 34.2	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.789	20.9	4.01	
5905	Dibenzofuran	µg/L	< 5.00	< 11.3	0.00 - 11.3	Acceptable	EPA 8270C 3 1996	1/23/2015				
5925	Di-n-butylphthalate	µg/L	< 10.0	< 15.8	0.00 - 15.8	Acceptable	EPA 8270C 3 1996	1/23/2015				
4610	1,2-Dichlorobenzene	µg/L		44.2	4.42 - 55.7	Not Reported				27.2	8.06	
4615	1,3-Dichlorobenzene	µg/L		149	14.9 - 172	Not Reported				85.1	29.2	
4620	1,4-Dichlorobenzene	µg/L		31.5	4.52 - 38.4	Not Reported				18.9	6.04	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	1/23/2015				
6070	Diethylphthalate	µg/L	< 5.00	< 8.90	0.00 - 8.90	Acceptable	EPA 8270C 3 1996	1/23/2015				
6135	Dimethylphthalate	µg/L	< 5.00	< 11.5	0.00 - 11.5	Acceptable	EPA 8270C 3 1996	1/23/2015				
6185	2,4-Dinitrotoluene	µg/L	59.2	96.6	40.3 - 119	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.36	78.7	14.4	
6190	2,6-Dinitrotoluene	µg/L	45.3	72.6	29.5 - 87.6	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.41	61.3	11.4	
6200	Di-n-octylphthalate	µg/L	23.9	32.4	8.93 - 49.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.761	28.5	6.11	
6065	bis(2-Ethylhexyl)phthalate	µg/L	74.2	92.2	31.3 - 123	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.622	83.4	14.8	
6265	Fluoranthene	µg/L	< 5.00	< 15.6	0.00 - 15.6	Acceptable	EPA 8270C 3 1996	1/23/2015				
6270	Fluorene	µg/L	30.3	45.5	19.4 - 57.4	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.21	38.3	6.60	
6275	Hexachlorobenzene	µg/L	57.8	87.8	39.2 - 105	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.35	71.6	10.2	
4835	Hexachlorobutadiene	µg/L	34.8	61.4	6.14 - 76.7	Acceptable	EPA 8270C 3 1996	1/23/2015	0.0230	34.5	13.5	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	1/23/2015				
4840	Hexachloroethane	µg/L	< 5.00	< 3.30	0.00 - 3.30	Acceptable	EPA 8270C 3 1996	1/23/2015				
6315	Indeno(1,2,3-cd)pyrene	µg/L	27.1	34.7	10.5 - 48.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.416	29.5	5.68	
6320	Isophorone	µg/L	51.3	99.4	36.3 - 124	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.05	65.0	13.0	
6385	2-Methylnaphthalene	µg/L	22.0	35.6	5.98 - 47.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.987	27.6	5.68	
5005	Naphthalene	µg/L	40.1	63.3	15.0 - 77.5	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.420	44.4	10.3	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
6465	3-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
6470	4-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5015	Nitrobenzene	µg/L	36.7	63.6	20.6 - 76.3	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.10	47.7	9.96	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 8270C 3 1996	1/23/2015				
6535	N-Nitrosodiphenylamine	µg/L	< 5.00	< 5.60	0.00 - 5.60	Acceptable	EPA 8270C 3 1996	1/23/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	41.5	72.0	23.2 - 90.6	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.35	55.9	10.6	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	41.7	60.4	28.2 - 74.2	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.15	49.2	6.50	
6665	Pyrene	µg/L	22.5	30.4	13.0 - 40.5	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.12	27.4	4.38	
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	34.8	61.6	9.78 - 75.8	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.372	38.9	11.1	

WP-240 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5700	4-Chloro-3-methylphenol	µg/L	61.5	78.1	29.7 - 96.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.324	65.1	11.2	
5800	2-Chlorophenol	µg/L	38.4	51.6	15.5 - 62.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.159	39.6	7.84	
6000	2,4-Dichlorophenol	µg/L	24.4	32.8	12.7 - 41.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.608	27.4	4.92	
6005	2,6-Dichlorophenol	µg/L		104	33.0 - 131	Not Reported				82.8	13.4	
6130	2,4-Dimethylphenol	µg/L	33.4	44.5	13.1 - 56.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.0393	33.1	7.58	
6360	4,6-Dinitro-2-methylphenol	µg/L	49.2	83.5	25.4 - 117	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.00	61.8	12.6	
6175	2,4-Dinitrophenol	µg/L	51.6	108	10.8 - 155	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.799	69.6	22.6	
6400	2-Methylphenol	µg/L	53.4	67.4	15.6 - 80.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.200	51.1	11.6	
6410	4-Methylphenol	µg/L	103	153	15.3 - 197	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.244	97.1	24.2	
6490	2-Nitrophenol	µg/L	42.8	62.4	17.6 - 79.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.641	49.4	10.3	
6500	4-Nitrophenol	µg/L	84.4	114	11.4 - 154	Acceptable	EPA 625 Appendix A 1982	1/23/2015	1.34	51.9	24.3	
6605	Pentachlorophenol	µg/L	54.0	84.4	26.7 - 115	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.913	68.1	15.5	
6625	Phenol	µg/L	98.1	155	15.5 - 208	Acceptable	EPA 625 Appendix A 1982	1/23/2015	1.29	61.3	28.6	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	72.6	103	37.7 - 128	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.749	85.2	16.8	
6840	2,4,6-Trichlorophenol	µg/L	28.7	40.5	15.6 - 49.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.773	33.4	6.04	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5700	4-Chloro-3-methylphenol	µg/L	61.5	78.1	29.7 - 96.5	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.324	65.1	11.2	
5800	2-Chlorophenol	µg/L	38.4	51.6	15.5 - 62.6	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.159	39.6	7.84	
6000	2,4-Dichlorophenol	µg/L	24.4	32.8	12.7 - 41.3	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.608	27.4	4.92	
6005	2,6-Dichlorophenol	µg/L		104	33.0 - 131	Not Reported				82.8	13.4	
6130	2,4-Dimethylphenol	µg/L	33.4	44.5	13.1 - 56.5	Acceptable	EPA 8270C 3 1996	1/23/2015	0.0393	33.1	7.58	
6360	4,6-Dinitro-2-methylphenol	µg/L	49.2	83.5	25.4 - 117	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.00	61.8	12.6	
6175	2,4-Dinitrophenol	µg/L	51.6	108	10.8 - 155	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.799	69.6	22.6	
6400	2-Methylphenol	µg/L	53.4	67.4	15.6 - 80.7	Acceptable	EPA 8270C 3 1996	1/23/2015	0.200	51.1	11.6	
6410	4-Methylphenol	µg/L	103	153	15.3 - 197	Acceptable	EPA 8270C 3 1996	1/23/2015	0.244	97.1	24.2	
6490	2-Nitrophenol	µg/L	42.8	62.4	17.6 - 79.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.641	49.4	10.3	
6500	4-Nitrophenol	µg/L	84.4	114	11.4 - 154	Acceptable	EPA 8270C 3 1996	1/23/2015	1.34	51.9	24.3	
6605	Pentachlorophenol	µg/L	54.0	84.4	26.7 - 115	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.913	68.1	15.5	
6625	Phenol	µg/L	98.1	155	15.5 - 208	Acceptable	EPA 8270C 3 1996	1/23/2015	1.29	61.3	28.6	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	72.6	103	37.7 - 128	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.749	85.2	16.8	
6840	2,4,6-Trichlorophenol	µg/L	28.7	40.5	15.6 - 49.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.773	33.4	6.04	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	1220	1160	673 - 1580	Acceptable	SM 5320 B-2010 2010	1/28/2015	1.23	1130	71.6	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	1220	1160	673 - 1580	Acceptable	SM5320B 20th ED 1997	1/28/2015	1.23	1130	71.6	

WP-240 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	1220	1160	673 - 1580	Acceptable	EPA 9020B 2 1994	1/28/2015	1.23	1130	71.6	

ERA
A Waters Company

Final Report Results For Laboratory
Eurofins Eaton Analytical, Inc - Monrovia

ERA
A Waters Company

2003 NELAC Evaluation Report

Study: **WP-240**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	39.4	40.7	34.6 - 46.8	Acceptable	SM 2320 B-1997 1997	1/22/2015	-0.722	40.8	1.91	
1575	Chloride	mg/L	91.4	98.6	86.5 - 111	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-1.35	96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	SM 2510 B-1997 1997	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	SM 4500-F C-1997 1997	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L	33.9	35.6	28.5 - 42.7	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.135	34.1	1.83	
1155	Sodium	mg/L	81.5	81.5	65.2 - 97.8	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.440	79.6	4.24	
2000	Sulfate	mg/L	33.6	35.3	28.7 - 40.7	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.0945	33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM 2540 C-1997 1997	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM 2540 B-1997 1997	1/22/2015	1.11	318	17.8	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	39.4	40.7	34.6 - 46.8	Acceptable	SM 2320 B-2011 2011	1/22/2015	-0.722	40.8	1.91	
1575	Chloride	mg/L	91.4	98.6	86.5 - 111	Acceptable	EPA 9056 1994	1/22/2015	-1.35	96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	SM 2510 B-2011 2011	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	SM 4500-F C-2011 2011	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L	33.9	35.6	28.5 - 42.7	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.135	34.1	1.83	
1155	Sodium	mg/L	81.5	81.5	65.2 - 97.8	Acceptable	EPA 6010B 2 1996	1/23/2015	0.440	79.6	4.24	
2000	Sulfate	mg/L	33.6	35.3	28.7 - 40.7	Acceptable	EPA 9056 1994	1/22/2015	-0.0945	33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM 2540 C-2011 2011	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM 2510 B-2011 2011	1/22/2015	1.11	318	17.8	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	39.4	40.7	34.6 - 46.8	Acceptable	SM2320B 22nd ED 2011	1/22/2015	-0.722	40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	SM2510B 22nd ED 2011	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	SM4500F- C 22nd ED 2011	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM2540C 22nd ED 2011	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM2540B 22nd ED 2011	1/22/2015	1.11	318	17.8	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		40.7	34.6 - 46.8	Not Reported				40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	EPA 120.1 1982	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.23	3.33	2.69 - 3.83	Acceptable	EPA 300.0 2.1 1993	2/11/2015	-0.0328	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L	318	322	277 - 367	Acceptable	SM2540C 20th ED 1997	1/22/2015	0.443	310	17.1	
1950	Total Solids at 105°C	mg/L	338	328	283 - 373	Acceptable	SM2540B 20th ED 1997	1/22/2015	1.11	318	17.8	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		40.7	34.6 - 46.8	Not Reported				40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm	510	506	455 - 557	Acceptable	EPA 9050A 1 1996	1/22/2015	-0.220	513	14.7	
1730	Fluoride	mg/L	3.23	3.33	2.69 - 3.83	Acceptable	EPA 9056 1994	2/11/2015	-0.0328	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L		322	277 - 367	Not Reported				310	17.1	
1950	Total Solids at 105°C	mg/L		328	283 - 373	Not Reported				318	17.8	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		40.7	34.6 - 46.8	Not Reported				40.8	1.91	
1575	Chloride	mg/L		98.6	86.5 - 111	Not Reported				96.7	3.93	
1610	Conductivity at 25°C	µmhos/cm		506	455 - 557	Not Reported				513	14.7	
1730	Fluoride	mg/L	3.09	3.33	2.69 - 3.83	Acceptable	EPA 9214 1996	2/12/2015	-0.854	3.24	0.170	
1125	Potassium	mg/L		35.6	28.5 - 42.7	Not Reported				34.1	1.83	
1155	Sodium	mg/L		81.5	65.2 - 97.8	Not Reported				79.6	4.24	
2000	Sulfate	mg/L		35.3	28.7 - 40.7	Not Reported				33.8	1.87	
1955	Total Dissolved Solids at 180°C	mg/L		322	277 - 367	Not Reported				310	17.1	
1950	Total Solids at 105°C	mg/L		328	283 - 373	Not Reported				318	17.8	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	74.0	76.4	62.1 - 85.3	Acceptable	SM 2540 D-1997 1997	1/16/2015	0.706	70.2	5.33	
1035	Calcium	mg/L	36.1	35.5	30.2 - 40.8	Acceptable	EPA 200.7 4.4 1994	1/20/2015	0.485	35.2	1.84	
1085	Magnesium	mg/L	19.8	19.2	16.3 - 22.1	Acceptable	EPA 200.7 4.4 1994	1/20/2015	0.707	19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.884	166	7.01	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	74.0	76.4	62.1 - 85.3	Acceptable	SM 2540 D-2011 2011	1/16/2015	0.706	70.2	5.33	
1035	Calcium	mg/L	36.1	35.5	30.2 - 40.8	Acceptable	EPA 6010B 2 1996	1/20/2015	0.485	35.2	1.84	
1085	Magnesium	mg/L	19.8	19.2	16.3 - 22.1	Acceptable	EPA 6010B 2 1996	1/20/2015	0.707	19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	EPA 6010B 2 1996	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	EPA 6010B 2 1996	1/21/2015	0.884	166	7.01	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	74.0	76.4	62.1 - 85.3	Acceptable	SM2540D 22nd ED 2011	1/16/2015	0.706	70.2	5.33	
1035	Calcium	mg/L		35.5	30.2 - 40.8	Not Reported				35.2	1.84	
1085	Magnesium	mg/L		19.2	16.3 - 22.1	Not Reported				19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	SM 2340 B-1997 1997	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	SM 2340 B-1997 1997	1/21/2015	0.884	166	7.01	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		76.4	62.1 - 85.3	Not Reported				70.2	5.33	
1035	Calcium	mg/L		35.5	30.2 - 40.8	Not Reported				35.2	1.84	
1085	Magnesium	mg/L		19.2	16.3 - 22.1	Not Reported				19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	SM2340B 22nd ED 2011	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	SM2340B 22nd ED 2011	1/21/2015	0.884	166	7.01	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L		76.4	62.1 - 85.3	Not Reported				70.2	5.33	
1035	Calcium	mg/L		35.5	30.2 - 40.8	Not Reported				35.2	1.84	
1085	Magnesium	mg/L		19.2	16.3 - 22.1	Not Reported				19.1	0.938	
1550	Calcium Hardness as CaCO3	mg/L	90.1	88.8	75.5 - 102	Acceptable	SM 2340 B-2011 2011	1/21/2015	0.320	88.7	4.43	
1755	Total Hardness as CaCO3	mg/L	172	168	143 - 193	Acceptable	SM 2340 B-2011 2011	1/21/2015	0.884	166	7.01	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	SM 4500-H+ B-2011 2011	1/22/2015	0.166	6.70	0.0464	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	SM4500H+ B 22nd ED 2011	1/22/2015	0.166	6.70	0.0464	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	SM 4500-H+ B-2000 2000	1/22/2015	0.166	6.70	0.0464	
WP pH (cat# 577)												
1900	pH	S.U.	6.71	6.72	6.52 - 6.92	Acceptable	EPA 9040B 2 1995	1/22/2015	0.166	6.70	0.0464	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	26.0	26.3	21.4 - 33.5	Acceptable	SM 2540 F-2011 2011	1/21/2015	-0.801	27.4	1.80	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	26.0	26.3	21.4 - 33.5	Acceptable	SM 2540 F-1997 1997	1/21/2015	-0.801	27.4	1.80	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	26.0	26.3	21.4 - 33.5	Acceptable	SM2540F 22nd ED 2011	1/21/2015	-0.801	27.4	1.80	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM 2540 E-1997 1997	1/20/2015	2.85	199	27.6	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM 2540 E-2011 2011	1/20/2015	2.85	199	27.6	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	SM2540E 22nd ED 2011	1/20/2015	2.85	199	27.6	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	278	205	137 - 249	Not Acceptable	EPA 160.4 1979	1/20/2015	2.85	199	27.6	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	EPA 350.1 2 1993	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L	13.7	14.0	11.7 - 16.2	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.482	14.1	0.911	
1810	Nitrate as N	mg/L	13.7	14.0	11.6 - 16.3	Acceptable	EPA 300.0 2.1 1993	1/22/2015	-0.482	14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	EPA 365.1 2 1993	1/22/2015	2.54	1.04	0.0777	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	SM 4500-NH3 H-2011 2011	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L	13.7	14.0	11.7 - 16.2	Acceptable	EPA 9056 1994	1/22/2015	-0.482	14.1	0.911	
1810	Nitrate as N	mg/L	13.7	14.0	11.6 - 16.3	Acceptable	EPA 9056 1994	1/22/2015	-0.482	14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM 4500-P E-1999 1999	1/22/2015	2.54	1.04	0.0777	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	SM4500NH3 H 20th ED 1997	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L	13.5	14.0	11.7 - 16.2	Acceptable	EPA 353.2 2 1993	2/17/2015	-0.702	14.1	0.911	
1810	Nitrate as N	mg/L	13.5	14.0	11.6 - 16.3	Acceptable	EPA 353.2 2 1993	2/17/2015	-0.694	14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM 4500-P E-2011 2011	1/22/2015	2.54	1.04	0.0777	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	16.1	16.3	13.1 - 19.4	Acceptable	SM4500NH3 H 22nd ED 2011	1/30/2015	-0.182	16.3	1.22	
1820	Nitrate + Nitrite as N	mg/L		14.0	11.7 - 16.2	Not Reported				14.1	0.911	
1810	Nitrate as N	mg/L		14.0	11.6 - 16.3	Not Reported				14.2	0.945	
1870	ortho-Phosphate as P	mg/L	1.24	1.05	0.892 - 1.21	Not Acceptable	SM4500P E 22nd ED 2011	1/22/2015	2.54	1.04	0.0777	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L	9.94	10.3	7.55 - 12.9	Acceptable	EPA 351.2 2 1993	1/23/2015	-0.375	10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	EPA 365.1 2 1993	1/28/2015	-0.887	4.92	0.267	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		10.3	7.55 - 12.9	Not Reported				10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	SM 4500-P E-1999 1999	1/28/2015	-0.887	4.92	0.267	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		10.3	7.55 - 12.9	Not Reported				10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	SM4500P E 20th ED 1997	1/28/2015	-0.887	4.92	0.267	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		10.3	7.55 - 12.9	Not Reported				10.2	0.728	
1910	Total phosphorus as P	mg/L	4.68	4.84	4.00 - 5.63	Acceptable	SM4500P E 22nd ED 2011	1/28/2015	-0.887	4.92	0.267	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.21	2.13	1.81 - 2.45	Acceptable	EPA 300.0 2.1 1993	1/15/2015	0.549	2.14	0.129	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.13	2.13	1.81 - 2.45	Acceptable	EPA 353.2 2 1993	1/16/2015	-0.0717	2.14	0.129	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.22	2.13	1.81 - 2.45	Acceptable	EPA 300.1 1 2000	1/15/2015	0.627	2.14	0.129	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	2.21	2.13	1.81 - 2.45	Acceptable	EPA 9056 1994	1/15/2015	0.549	2.14	0.129	
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM 5210 B-2001 2001	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM 5210 B-2001 2001	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM 5220 D-1997 1997	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM 5310 C-2000 2000	2/4/2015	0.269	56.2	3.44	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM 5210 B-2011 2011	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM 5210 B-2011 2011	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM 5220 D-2011 2011	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM 5310 C-2011 2011	2/4/2015	0.269	56.2	3.44	
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM5210B 22nd ED 2011	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM5210B 22nd ED 2011	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM5220D 22nd ED 2011	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM5310C 22nd ED 2011	2/4/2015	0.269	56.2	3.44	
WP Demand (cat# 578)												
1530	BOD	mg/L	97.5	86.2	46.0 - 126	Acceptable	SM5210B 21st ED 2001	1/16/2015	0.798	87.0	13.2	
1555	CBOD	mg/L	83.4	78.0	35.9 - 120	Acceptable	SM5210B 21st ED 2001	1/16/2015	0.288	79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	SM5220D 21st ED 1997	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	SM5310C 20th ED 1996	2/4/2015	0.269	56.2	3.44	
WP Demand (cat# 578)												
1530	BOD	mg/L		86.2	46.0 - 126	Not Reported				87.0	13.2	
1555	CBOD	mg/L		78.0	35.9 - 120	Not Reported				79.4	13.8	
1565	COD	mg/L	131	140	110 - 165	Acceptable	EPA 410.4 2 1993	1/21/2015	-0.640	137	9.66	
2040	TOC	mg/L	57.1	55.4	46.2 - 64.1	Acceptable	EPA 9060A 2002	2/4/2015	0.269	56.2	3.44	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1720	1810	1500 - 2080	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.946	1810	98.7	
1005	Antimony	µg/L	127	131	91.2 - 165	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.276	129	8.49	
1010	Arsenic	µg/L	285	304	249 - 357	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.00	299	14.4	
1015	Barium	µg/L	362	372	316 - 428	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.610	372	16.2	
1020	Beryllium	µg/L	181	186	158 - 214	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.353	185	10.3	
1025	Boron	µg/L		1540	1310 - 1770	Not Reported				1520	98.1	
1030	Cadmium	µg/L	659	673	572 - 774	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.339	669	29.1	
1040	Chromium	µg/L	455	483	411 - 555	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.42	484	20.3	
1050	Cobalt	µg/L	730	747	635 - 859	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.35	782	38.9	
1055	Copper	µg/L	189	201	171 - 231	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.984	200	11.6	
1070	Iron	µg/L		1930	1640 - 2220	Not Reported				1950	83.7	
1075	Lead	µg/L	273	285	242 - 328	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.937	286	14.0	
1090	Manganese	µg/L	1090	1130	960 - 1300	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.30	1160	57.7	
1100	Molybdenum	µg/L	128	140	116 - 162	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.90	139	5.87	
1105	Nickel	µg/L	1140	1280	1130 - 1440	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.87	1260	64.4	
1140	Selenium	µg/L	279	299	254 - 344	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-1.03	299	19.1	
1150	Silver	µg/L	267	257	218 - 296	Acceptable	EPA 200.8 5.4 1994	1/23/2015	0.635	258	14.0	
1160	Strontium	µg/L		110	93.5 - 126	Not Reported				112	5.32	
1165	Thallium	µg/L	544	567	468 - 656	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.691	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.558	249	10.2	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	736	769	654 - 884	Acceptable	EPA 200.8 5.4 1994	1/22/2015	-0.880	772	40.9	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1730	1810	1500 - 2080	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.845	1810	98.7	
1005	Antimony	µg/L	143	131	91.2 - 165	Acceptable	EPA 200.7 4.4 1994	1/28/2015	1.61	129	8.49	
1010	Arsenic	µg/L		304	249 - 357	Not Reported				299	14.4	
1015	Barium	µg/L	371	372	316 - 428	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0533	372	16.2	
1020	Beryllium	µg/L	185	186	158 - 214	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0335	185	10.3	
1025	Boron	µg/L	1520	1540	1310 - 1770	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0109	1520	98.1	
1030	Cadmium	µg/L	615	673	572 - 774	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-1.85	669	29.1	
1040	Chromium	µg/L	480	483	411 - 555	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.189	484	20.3	
1050	Cobalt	µg/L	782	747	635 - 859	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.0126	782	38.9	
1055	Copper	µg/L	193	201	171 - 231	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.640	200	11.6	
1070	Iron	µg/L	1910	1930	1640 - 2220	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.493	1950	83.7	
1075	Lead	µg/L	287	285	242 - 328	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0654	286	14.0	
1090	Manganese	µg/L	1170	1130	960 - 1300	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0915	1160	57.7	
1100	Molybdenum	µg/L	137	140	116 - 162	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.370	139	5.87	
1105	Nickel	µg/L	1290	1280	1130 - 1440	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.458	1260	64.4	
1140	Selenium	µg/L		299	254 - 344	Not Reported				299	19.1	
1150	Silver	µg/L	247	257	218 - 296	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.794	258	14.0	
1160	Strontium	µg/L	111	110	93.5 - 126	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.206	112	5.32	
1165	Thallium	µg/L	562	567	468 - 656	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.138	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.558	249	10.2	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	775	769	654 - 884	Acceptable	EPA 200.7 4.4 1994	1/23/2015	0.0735	772	40.9	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1730	1810	1500 - 2080	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.845	1810	98.7	
1005	Antimony	µg/L	143	131	91.2 - 165	Acceptable	EPA 6010B 2 1996	1/28/2015	1.61	129	8.49	
1010	Arsenic	µg/L		304	249 - 357	Not Reported				299	14.4	
1015	Barium	µg/L	371	372	316 - 428	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.0533	372	16.2	
1020	Beryllium	µg/L	185	186	158 - 214	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0335	185	10.3	
1025	Boron	µg/L	1520	1540	1310 - 1770	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.0109	1520	98.1	
1030	Cadmium	µg/L	615	673	572 - 774	Acceptable	EPA 6010B 2 1996	1/23/2015	-1.85	669	29.1	
1040	Chromium	µg/L	480	483	411 - 555	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.189	484	20.3	
1050	Cobalt	µg/L	782	747	635 - 859	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.0126	782	38.9	
1055	Copper	µg/L	193	201	171 - 231	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.640	200	11.6	
1070	Iron	µg/L	1910	1930	1640 - 2220	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.493	1950	83.7	
1075	Lead	µg/L	287	285	242 - 328	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0654	286	14.0	
1090	Manganese	µg/L	1170	1130	960 - 1300	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0915	1160	57.7	
1100	Molybdenum	µg/L	137	140	116 - 162	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.370	139	5.87	
1105	Nickel	µg/L	1290	1280	1130 - 1440	Acceptable	EPA 6010B 2 1996	1/23/2015	0.458	1260	64.4	
1140	Selenium	µg/L		299	254 - 344	Not Reported				299	19.1	
1150	Silver	µg/L	247	257	218 - 296	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.794	258	14.0	
1160	Strontium	µg/L	111	110	93.5 - 126	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.206	112	5.32	
1165	Thallium	µg/L	562	567	468 - 656	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.138	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.558	249	10.2	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	775	769	654 - 884	Acceptable	EPA 6010B 2 1996	1/23/2015	0.0735	772	40.9	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1720	1810	1500 - 2080	Acceptable	EPA 6020 0 1994	1/22/2015	-0.946	1810	98.7	
1005	Antimony	µg/L	127	131	91.2 - 165	Acceptable	EPA 6020 0 1994	1/22/2015	-0.276	129	8.49	
1010	Arsenic	µg/L	285	304	249 - 357	Acceptable	EPA 6020 0 1994	1/22/2015	-1.00	299	14.4	
1015	Barium	µg/L	362	372	316 - 428	Acceptable	EPA 6020 0 1994	1/22/2015	-0.610	372	16.2	
1020	Beryllium	µg/L	181	186	158 - 214	Acceptable	EPA 6020 0 1994	1/22/2015	-0.353	185	10.3	
1025	Boron	µg/L		1540	1310 - 1770	Not Reported				1520	98.1	
1030	Cadmium	µg/L	659	673	572 - 774	Acceptable	EPA 6020 0 1994	1/22/2015	-0.339	669	29.1	
1040	Chromium	µg/L	455	483	411 - 555	Acceptable	EPA 6020 0 1994	1/22/2015	-1.42	484	20.3	
1050	Cobalt	µg/L	730	747	635 - 859	Acceptable	EPA 6020 0 1994	1/22/2015	-1.35	782	38.9	
1055	Copper	µg/L	189	201	171 - 231	Acceptable	EPA 6020 0 1994	1/22/2015	-0.984	200	11.6	
1070	Iron	µg/L		1930	1640 - 2220	Not Reported				1950	83.7	
1075	Lead	µg/L	273	285	242 - 328	Acceptable	EPA 6020 0 1994	1/22/2015	-0.937	286	14.0	
1090	Manganese	µg/L	1090	1130	960 - 1300	Acceptable	EPA 6020 0 1994	1/22/2015	-1.30	1160	57.7	
1100	Molybdenum	µg/L	128	140	116 - 162	Acceptable	EPA 6020 0 1994	1/22/2015	-1.90	139	5.87	
1105	Nickel	µg/L	1140	1280	1130 - 1440	Acceptable	EPA 6020 0 1994	1/22/2015	-1.87	1260	64.4	
1140	Selenium	µg/L	279	299	254 - 344	Acceptable	EPA 6020 0 1994	1/22/2015	-1.03	299	19.1	
1150	Silver	µg/L	267	257	218 - 296	Acceptable	EPA 6020 0 1994	1/23/2015	0.635	258	14.0	
1160	Strontium	µg/L		110	93.5 - 126	Not Reported				112	5.32	
1165	Thallium	µg/L	544	567	468 - 656	Acceptable	EPA 6020 0 1994	1/22/2015	-0.691	567	32.6	
1185	Vanadium	µg/L	243	252	214 - 290	Acceptable	EPA 6020 0 1994	1/22/2015	-0.558	249	10.2	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	736	769	654 - 884	Acceptable	EPA 6020 0 1994	1/22/2015	-0.880	772	40.9	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.93	7.72	5.40 - 10.0	Acceptable	EPA 245.1 3 1994	2/2/2015	1.72	7.60	0.776	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.93	7.72	5.40 - 10.0	Acceptable	EPA 7470A 1 1994	2/2/2015	1.72	7.60	0.776	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	EPA 218.6 3.3 1994	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	278	282	234 - 328	Acceptable	SM 3500-Cr B-2009 2009	1/21/2015	-0.194	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	278	282	234 - 328	Acceptable	SM 3500-Cr B-2011 2011	1/21/2015	-0.194	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	SM 3500-Cr C-2009 2009	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	SM 3500-Cr C-2011 2011	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	273	282	234 - 328	Acceptable	EPA 7199 1996	1/22/2015	-0.542	281	14.4	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	278	282	234 - 328	Acceptable	EPA 7196A 1 1992	1/21/2015	-0.194	281	14.4	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	748	755	528 - 982	Acceptable	EPA 200.7 4.4 1994	2/5/2015	-0.261	759	40.7	
1180	Titanium	µg/L	277	276	235 - 317	Acceptable	EPA 200.7 4.4 1994	2/5/2015	0.0818	276	12.1	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	748	755	528 - 982	Acceptable	EPA 6010B 2 1996	2/5/2015	-0.261	759	40.7	
1180	Titanium	µg/L	277	276	235 - 317	Acceptable	EPA 6010B 2 1996	2/5/2015	0.0818	276	12.1	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	790	755	528 - 982	Acceptable	EPA 200.8 5.4 1994	2/5/2015	0.771	759	40.7	
1180	Titanium	µg/L	290	276	235 - 317	Acceptable	EPA 200.8 5.4 1994	2/5/2015	1.15	276	12.1	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	790	755	528 - 982	Acceptable	EPA 6020 1994	2/5/2015	0.771	759	40.7	
1180	Titanium	µg/L	290	276	235 - 317	Acceptable	EPA 6020 1994	2/5/2015	1.15	276	12.1	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM 2120 B-2001 2001	1/16/2015	-0.718	32.9	4.06	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM2120B 22nd ED 2011	1/16/2015	-0.718	32.9	4.06	
WP Color (cat# 882)												
1605	Color	PC units	30.0	35.0	22.6 - 44.9	Acceptable	SM 2120 B-2011 2011	1/16/2015	-0.718	32.9	4.06	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	EPA 180.1 2 1993	1/20/2015	-0.568	8.16	0.449	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	SM 2130 B-2001 2001	1/20/2015	-0.568	8.16	0.449	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	SM 2130 B-2011 2011	1/20/2015	-0.568	8.16	0.449	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	7.90	8.44	6.76 - 10.1	Acceptable	SM2130B 22nd ED 2011	1/20/2015	-0.568	8.16	0.449	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	EPA 335.4 1993	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	SM 4500-CN F-2011 2011	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	SM4500CN F 22nd ED 2011	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	SM4500CN F 20th ED 1997	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.772	0.804	0.523 - 1.09	Acceptable	EPA 9012B 2002	1/27/2015	-0.120	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.867	0.804	0.523 - 1.09	Acceptable	OIA 1677 2004	2/10/2015	1.45	0.779	0.0606	
1510	Amenable Cyanide	mg/L		0.662	0.430 - 0.894	Not Reported				0.662	0.0595	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	2.90	2.77	1.41 - 4.13	Acceptable	EPA 420.1 1978	1/22/2015	-0.211	3.02	0.584	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	2.90	2.77	1.41 - 4.13	Acceptable	EPA 420.4 1 1993	1/22/2015	-0.211	3.02	0.584	
WP Total Phenolics (4-AAP) (cat# 589)												
1905	Phenolics, total	mg/L	2.90	2.77	1.41 - 4.13	Acceptable	EPA 9066 1986	1/22/2015	-0.211	3.02	0.584	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	194	189	142 - 236	Acceptable	EPA 200.7 4.4 1994	1/21/2015	0.598	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	194	189	142 - 236	Acceptable	EPA 6010B 2 1996	1/21/2015	0.598	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	185	189	142 - 236	Acceptable	SM 4500-SiO2 C-2011 2011	1/19/2015	-0.0469	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	185	189	142 - 236	Acceptable	SM 4500-SiO2 C-1997 1997	1/19/2015	-0.0469	186	14.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	185	189	142 - 236	Acceptable	SM4500SiO2 C 22nd ED 2011	1/19/2015	-0.0469	186	14.0	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	EPA 376.2 1978	1/24/2015	-0.159	6.88	1.27	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	SM 4500-S2 D-2000 2000	1/24/2015	-0.159	6.88	1.27	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	SM 4500-S2 D-2011 2011	1/24/2015	-0.159	6.88	1.27	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	6.68	7.34	3.46 - 10.5	Acceptable	SM4500S2- D 22nd ED 2011	1/24/2015	-0.159	6.88	1.27	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.943	0.887	0.551 - 1.28	Acceptable	SM 5540 C-2000 2000	1/27/2015	0.426	0.898	0.106	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.943	0.887	0.551 - 1.28	Acceptable	SM 5540 C-2011 2011	1/27/2015	0.426	0.898	0.106	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.943	0.887	0.551 - 1.28	Acceptable	SM5540C 22nd ED 2011	1/27/2015	0.426	0.898	0.106	
WP Boron (cat# 886)												
1025	Boron	µg/L	883	909	773 - 1050	Acceptable	EPA 200.7 4.4 1994	1/23/2015	-0.344	913	88.3	
WP Boron (cat# 886)												
1025	Boron	µg/L	883	909	773 - 1050	Acceptable	EPA 6010B 2 1996	1/23/2015	-0.344	913	88.3	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	3.51	3.49	2.78 - 4.16	Acceptable	EPA 300.0 2.1 1993	1/23/2015	-0.0309	3.52	0.196	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	3.49	3.49	2.78 - 4.16	Acceptable	EPA 300.1 1 2000	1/23/2015	-0.133	3.52	0.196	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Bromide (cat# 887)												
1540	Bromide	mg/L	3.51	3.49	2.78 - 4.16	Acceptable	EPA 9056 1994	1/23/2015	-0.0309	3.52	0.196	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.41	1.39	1.03 - 1.65	Acceptable	SM 4500-Cl G-2000 2000	1/20/2015	0.448	1.37	0.0918	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.41	1.39	1.03 - 1.65	Acceptable	SM 4500-Cl G-2011 2011	1/20/2015	0.448	1.37	0.0918	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	1.41	1.39	1.03 - 1.65	Acceptable	SM4500Cl G 22nd ED 2011	1/20/2015	0.448	1.37	0.0918	

ERA
A Waters Company

2003 NELAC Evaluation Report

Study: **WP-240**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	1300	911	282 - 2000	Acceptable	SM 9221 B-2006 2006	2/19/2015	1.92	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL	1300	911	80.3 - 3420	Acceptable	SM 9221 E + C-2006 2006	2/19/2015	1.40	524	556	
2525	E.coli (MPN)	MPN/100mL	1300	911	273 - 2030	Acceptable	SM 9221 B.1 + F-2006 2006	2/19/2015	1.90	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	1300	911	282 - 2000	Acceptable	SM9221B 22nd ED 2006	2/19/2015	1.92	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL	1300	911	80.3 - 3420	Acceptable	SM9221C 22nd ED 2006	2/19/2015	1.40	524	556	
2525	E.coli (MPN)	MPN/100mL	1300	911	273 - 2030	Acceptable	SM9221F 22nd ED 2006	2/19/2015	1.90	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM 9223 B-2004 2004	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM 9223 B-2004 2004	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM9223 COLILERT 22nd ED 2004	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM9223 COLILERT 22nd ED 2004	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM9223 COLert18 22nd ED 2004	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM9223 COLert18 22nd ED 2004	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	790	911	282 - 2000	Acceptable	SM9223 COLert18 21st ED 1997	1/29/2015	0.137	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	790	911	273 - 2030	Acceptable	SM9223 COLert18 21st ED 1997	1/29/2015	0.157	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	816	911	282 - 2000	Acceptable	SM9223 COLertQT 20th ED 1998	1/28/2015	0.228	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	816	911	273 - 2030	Acceptable	SM9223 COLertQT 20th ED 1998	1/28/2015	0.246	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	980	911	282 - 2000	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	1/29/2015	0.803	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	980	911	273 - 2030	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	1/29/2015	0.807	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	980	911	282 - 2000	Acceptable	SM9223 COLt18QT 21st ED 2005	1/29/2015	0.803	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	980	911	273 - 2030	Acceptable	SM9223 COLt18QT 21st ED 2005	1/29/2015	0.807	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		502	215 - 1170	Not Reported				503	160	
2530	Fecal Coliforms (MF)	CFU/100mL		502	18.0 - 1500	Not Reported				163	248	
2525	E.coli (MF)	CFU/100mL		502	33.0 - 2260	Not Reported				273	371	
2500	Total Coliforms (MPN)	MPN/100mL	816	911	282 - 2000	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	1/28/2015	0.228	751	286	
2530	Fecal Coliforms (MPN)	MPN/100mL		911	80.3 - 3420	Not Reported				524	556	
2525	E.coli (MPN)	MPN/100mL	816	911	273 - 2030	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	1/28/2015	0.246	744	292	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		385	172 - 651	Not Reported				334	79.8	
2520	Enterococci (MPN)	MPN/100mL	490	422	108 - 1030	Acceptable	SM 9230 B-2007 2007	1/27/2015	1.02	333	154	
2540	Fecal Streptococci (MF)	CFU/100mL		385	5.00 - 7550	Not Reported				192	1260	
2540	Fecal Streptococci (MPN)	MPN/100mL	490	422	148 - 1020	Acceptable	SM 9230 B-2007 2007	1/27/2015	0.705	388	145	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		385	172 - 651	Not Reported				334	79.8	
2520	Enterococci (MPN)	MPN/100mL	490	422	108 - 1030	Acceptable	SM9230B 22nd ED	1/27/2015	1.02	333	154	
2540	Fecal Streptococci (MF)	CFU/100mL		385	5.00 - 7550	Not Reported				192	1260	
2540	Fecal Streptococci (MPN)	MPN/100mL	490	422	148 - 1020	Acceptable	SM9230B 22nd ED	1/27/2015	0.705	388	145	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		385	172 - 651	Not Reported				334	79.8	
2520	Enterococci (MPN)	MPN/100mL	411	422	108 - 1030	Acceptable	SM 9230 D Enterolert®	1/28/2015	0.508	333	154	
2540	Fecal Streptococci (MF)	CFU/100mL		385	5.00 - 7550	Not Reported				192	1260	
2540	Fecal Streptococci (MPN)	MPN/100mL	411	422	148 - 1020	Acceptable	SM 9230 D Enterolert®	1/28/2015	0.160	388	145	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2003 NELAC Evaluation Report

Study: **WP-240**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	54.1	52.6	12.9 - 87.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.538	49.9	7.81	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4375	Benzene	µg/L	60.2	56.8	39.8 - 73.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.718	56.0	5.87	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4395	Bromodichloromethane	µg/L	38.7	28.3	17.0 - 39.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015	3.35	28.4	3.08	
4400	Bromoform	µg/L	37.9	33.0	19.8 - 46.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.09	32.7	4.74	
4950	Bromomethane	µg/L	23.6	24.0	9.60 - 38.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.510	20.6	5.86	
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	48.8	42.6	28.1 - 58.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.985	44.1	4.73	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4455	Carbon tetrachloride	µg/L	47.8	53.9	30.1 - 73.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.423	51.1	7.88	
4475	Chlorobenzene	µg/L	38.1	34.5	24.2 - 44.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.01	34.5	3.57	
4575	Chlorodibromomethane	µg/L	71.5	66.0	39.6 - 92.4	Acceptable	EPA 624 Appendix A 1982	1/27/2015	0.581	67.4	7.12	
4485	Chloroethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/22/2015				
4505	Chloroform	µg/L	53.1	51.6	36.1 - 67.1	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.105	52.6	5.18	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		64.4	38.6 - 90.2	Not Reported				63.7	9.96	
4585	1,2-Dibromoethane (EDB)	µg/L		< 6.50	0.00 - 6.50	Not Reported						
4595	Dibromomethane	µg/L	49.3	41.6	27.0 - 56.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.53	42.3	4.53	
4610	1,2-Dichlorobenzene	µg/L	29.4	33.2	23.2 - 43.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.719	32.1	3.77	
4615	1,3-Dichlorobenzene	µg/L	37.6	38.3	26.8 - 49.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.176	36.8	4.58	
4620	1,4-Dichlorobenzene	µg/L	34.5	34.3	24.0 - 44.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.484	32.7	3.77	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4630	1,1-Dichloroethane	µg/L	22.3	22.0	14.0 - 30.3	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.122	22.0	2.33	
4635	1,2-Dichloroethane	µg/L	< 0.50	< 10.6	0.00 - 10.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4645	cis-1,2-Dichloroethylene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4700	trans-1,2-Dichloroethylene	µg/L	20.0	19.0	11.4 - 26.6	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.174	19.6	2.20	
4655	1,2-Dichloropropane	µg/L	26.6	25.8	18.1 - 33.5	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.293	25.8	2.61	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	31.8	27.4	17.8 - 37.0	Acceptable	EPA 624 Appendix A 1982	1/23/2015	1.59	26.4	3.40	
4685	trans-1,3-Dichloropropylene	µg/L	36.6	37.2	24.2 - 50.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.846	33.2	3.99	
4765	Ethylbenzene	µg/L	25.4	25.8	18.1 - 33.5	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.119	25.1	2.64	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	47.2	49.6	20.5 - 76.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.0101	47.3	6.64	
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
4995	4-Methyl-2-pentanone (MIBK)	µg/L	31.0	31.8	9.38 - 52.3	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.0939	30.6	4.27	
5005	Naphthalene	µg/L		23.5	10.4 - 33.8	Not Reported				21.0	3.31	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	< 0.50	< 13.0	0.00 - 13.0	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5105	1,1,1,2-Tetrachloroethane	µg/L	< 0.50	< 9.80	0.00 - 9.80	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5110	1,1,2,2-Tetrachloroethane	µg/L	37.8	31.2	20.3 - 42.1	Acceptable	EPA 624 Appendix A 1982	1/23/2015	2.09	30.6	3.45	
5115	Tetrachloroethylene	µg/L	23.8	26.1	13.7 - 34.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.146	23.3	3.71	
5140	Toluene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		21.6	7.41 - 29.6	Not Reported				19.4	3.28	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5165	1,1,2-Trichloroethane	µg/L	59.4	54.5	38.2 - 70.8	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.858	55.5	4.53	
5170	Trichloroethylene	µg/L	62.9	60.9	38.7 - 79.5	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.466	60.3	5.67	
5175	Trichlorofluoromethane	µg/L	19.3	20.1	8.04 - 32.2	Acceptable	EPA 624 Appendix A 1982	1/23/2015	0.102	18.9	4.06	
5180	1,2,3-Trichloropropane (TCP)	µg/L	47.1	38.6	15.9 - 59.4	Acceptable	EPA 624 Appendix A 1982	1/27/2015	1.33	39.4	5.83	
5210	1,2,4-Trimethylbenzene	µg/L		42.0	27.3 - 56.7	Not Reported				40.7	5.24	
5215	1,3,5-Trimethylbenzene	µg/L		52.4	34.1 - 70.7	Not Reported				49.7	6.67	
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	1/23/2015				
5240	m&p-Xylene	µg/L	49.9	52.2	31.3 - 73.1	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.330	51.7	5.32	
5250	o-Xylene	µg/L	33.1	34.6	20.8 - 48.4	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.206	33.8	3.60	
5260	Xylenes, total	µg/L	83.0	86.8	52.1 - 122	Acceptable	EPA 624 Appendix A 1982	1/23/2015	-0.269	85.5	9.21	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	54.1	52.6	12.9 - 87.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.538	49.9	7.81	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4340	Acrylonitrile	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4375	Benzene	µg/L	60.2	56.8	39.8 - 73.8	Acceptable	EPA 8260B 2 1996	1/23/2015	0.718	56.0	5.87	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4395	Bromodichloromethane	µg/L	38.7	28.3	17.0 - 39.6	Acceptable	EPA 8260B 2 1996	1/23/2015	3.35	28.4	3.08	
4400	Bromoform	µg/L	37.9	33.0	19.8 - 46.2	Acceptable	EPA 8260B 2 1996	1/23/2015	1.09	32.7	4.74	
4950	Bromomethane	µg/L	23.6	24.0	9.60 - 38.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.510	20.6	5.86	
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	48.8	42.6	28.1 - 58.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.985	44.1	4.73	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4455	Carbon tetrachloride	µg/L	47.8	53.9	30.1 - 73.2	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.423	51.1	7.88	
4475	Chlorobenzene	µg/L	38.1	34.5	24.2 - 44.8	Acceptable	EPA 8260B 2 1996	1/23/2015	1.01	34.5	3.57	
4575	Chlorodibromomethane	µg/L	71.5	66.0	39.6 - 92.4	Acceptable	EPA 8260B 2 1996	1/27/2015	0.581	67.4	7.12	
4485	Chloroethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	1/23/2015				

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/22/2015				
4505	Chloroform	µg/L	53.1	51.6	36.1 - 67.1	Acceptable	EPA 8260B 2 1996	1/23/2015	0.105	52.6	5.18	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		64.4	38.6 - 90.2	Not Reported				63.7	9.96	
4585	1,2-Dibromoethane (EDB)	µg/L		< 6.50	0.00 - 6.50	Not Reported						
4595	Dibromomethane	µg/L	49.3	41.6	27.0 - 56.2	Acceptable	EPA 8260B 2 1996	1/23/2015	1.53	42.3	4.53	
4610	1,2-Dichlorobenzene	µg/L	29.4	33.2	23.2 - 43.2	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.719	32.1	3.77	
4615	1,3-Dichlorobenzene	µg/L	37.6	38.3	26.8 - 49.8	Acceptable	EPA 8260B 2 1996	1/23/2015	0.176	36.8	4.58	
4620	1,4-Dichlorobenzene	µg/L	34.5	34.3	24.0 - 44.6	Acceptable	EPA 8260B 2 1996	1/23/2015	0.484	32.7	3.77	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4630	1,1-Dichloroethane	µg/L	22.3	22.0	14.0 - 30.3	Acceptable	EPA 8260B 2 1996	1/23/2015	0.122	22.0	2.33	
4635	1,2-Dichloroethane	µg/L	< 0.50	< 10.6	0.00 - 10.6	Acceptable	EPA 8260B 2 1996	1/23/2015				
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 8260B 2 1996	1/23/2015				
4645	cis-1,2-Dichloroethylene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4700	trans-1,2-Dichloroethylene	µg/L	20.0	19.0	11.4 - 26.6	Acceptable	EPA 8260B 2 1996	1/23/2015	0.174	19.6	2.20	
4655	1,2-Dichloropropane	µg/L	26.6	25.8	18.1 - 33.5	Acceptable	EPA 8260B 2 1996	1/23/2015	0.293	25.8	2.61	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	31.8	27.4	17.8 - 37.0	Acceptable	EPA 8260B 2 1996	1/23/2015	1.59	26.4	3.40	
4685	trans-1,3-Dichloropropylene	µg/L	36.6	37.2	24.2 - 50.2	Acceptable	EPA 8260B 2 1996	1/23/2015	0.846	33.2	3.99	
4765	Ethylbenzene	µg/L	25.4	25.8	18.1 - 33.5	Acceptable	EPA 8260B 2 1996	1/23/2015	0.119	25.1	2.64	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	47.2	49.6	20.5 - 76.8	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.0101	47.3	6.64	
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
4995	4-Methyl-2-pentanone (MIBK)	µg/L	31.0	31.8	9.38 - 52.3	Acceptable	EPA 8260B 2 1996	1/23/2015	0.0939	30.6	4.27	
5005	Naphthalene	µg/L		23.5	10.4 - 33.8	Not Reported				21.0	3.31	
5015	Nitrobenzene	µg/L		< 6.20	0.00 - 6.20	Not Reported						
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	< 0.50	< 13.0	0.00 - 13.0	Acceptable	EPA 8260B 2 1996	1/23/2015				
5105	1,1,1,2-Tetrachloroethane	µg/L	< 0.50	< 9.80	0.00 - 9.80	Acceptable	EPA 8260B 2 1996	1/23/2015				
5110	1,1,2,2-Tetrachloroethane	µg/L	37.8	31.2	20.3 - 42.1	Acceptable	EPA 8260B 2 1996	1/23/2015	2.09	30.6	3.45	
5115	Tetrachloroethylene	µg/L	23.8	26.1	13.7 - 34.4	Acceptable	EPA 8260B 2 1996	1/23/2015	0.146	23.3	3.71	
5140	Toluene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		21.6	7.41 - 29.6	Not Reported				19.4	3.28	
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5165	1,1,2-Trichloroethane	µg/L	59.4	54.5	38.2 - 70.8	Acceptable	EPA 8260B 2 1996	1/23/2015	0.858	55.5	4.53	
5170	Trichloroethylene	µg/L	62.9	60.9	38.7 - 79.5	Acceptable	EPA 8260B 2 1996	1/23/2015	0.466	60.3	5.67	
5175	Trichlorofluoromethane	µg/L	19.3	20.1	8.04 - 32.2	Acceptable	EPA 8260B 2 1996	1/23/2015	0.102	18.9	4.06	
5180	1,2,3-Trichloropropane (TCP)	µg/L	47.1	38.6	15.9 - 59.4	Acceptable	EPA 8260B 2 1996	1/27/2015	1.33	39.4	5.83	
5210	1,2,4-Trimethylbenzene	µg/L		42.0	27.3 - 56.7	Not Reported				40.7	5.24	
5215	1,3,5-Trimethylbenzene	µg/L		52.4	34.1 - 70.7	Not Reported				49.7	6.67	
5225	Vinyl acetate	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	1/23/2015				
5240	m&p-Xylene	µg/L	49.9	52.2	31.3 - 73.1	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.330	51.7	5.32	
5250	o-Xylene	µg/L	33.1	34.6	20.8 - 48.4	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.206	33.8	3.60	
5260	Xylenes, total	µg/L	83.0	86.8	52.1 - 122	Acceptable	EPA 8260B 2 1996	1/23/2015	-0.269	85.5	9.21	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	13.9	21.6	7.99 - 27.2	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.00	17.1	3.16	
5505	Acenaphthylene	µg/L	15.2	23.1	7.63 - 28.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.06	19.4	3.92	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5555	Anthracene	µg/L	19.7	30.0	12.5 - 39.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.10	23.9	3.80	
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5575	Benzo(a)anthracene	µg/L	26.9	36.5	16.6 - 45.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.760	30.5	4.77	
5585	Benzo(b)fluoranthene	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5600	Benzo(k)fluoranthene	µg/L	< 5.00	< 7.70	0.00 - 7.70	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5590	Benzo(g,h,i)perylene	µg/L	15.3	18.6	8.19 - 25.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.544	17.0	3.21	
5580	Benzo(a)pyrene	µg/L	< 5.00	< 2.40	0.00 - 2.40	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5630	Benzyl alcohol	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5660	4-Bromophenyl-phenylether	µg/L	69.3	103	42.7 - 130	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.10	82.3	11.8	
5670	Butylbenzylphthalate	µg/L	42.3	57.9	15.9 - 78.1	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.807	49.9	9.45	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5765	bis(2-Chloroethyl)ether	µg/L	65.0	91.3	23.8 - 110	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.188	67.6	13.9	
5780	bis(2-Chloroisopropyl)ether	µg/L	< 10.0	< 3.10	0.00 - 3.10	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	< 5.00	< 6.30	0.00 - 6.30	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5825	4-Chlorophenyl-phenylether	µg/L	< 5.00	< 9.90	0.00 - 9.90	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5855	Chrysene	µg/L	15.0	17.4	8.87 - 24.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.424	16.1	2.52	
5895	Dibenz(a,h)anthracene	µg/L	17.7	23.2	8.09 - 34.2	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.789	20.9	4.01	
5905	Dibenzofuran	µg/L	< 5.00	< 11.3	0.00 - 11.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5925	Di-n-butylphthalate	µg/L	< 10.0	< 15.8	0.00 - 15.8	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
4610	1,2-Dichlorobenzene	µg/L		44.2	4.42 - 55.7	Not Reported				27.2	8.06	
4615	1,3-Dichlorobenzene	µg/L		149	14.9 - 172	Not Reported				85.1	29.2	
4620	1,4-Dichlorobenzene	µg/L		31.5	4.52 - 38.4	Not Reported				18.9	6.04	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6070	Diethylphthalate	µg/L	< 5.00	< 8.90	0.00 - 8.90	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6135	Dimethylphthalate	µg/L	< 5.00	< 11.5	0.00 - 11.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6185	2,4-Dinitrotoluene	µg/L	59.2	96.6	40.3 - 119	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.36	78.7	14.4	
6190	2,6-Dinitrotoluene	µg/L	45.3	72.6	29.5 - 87.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.41	61.3	11.4	
6200	Di-n-octylphthalate	µg/L	23.9	32.4	8.93 - 49.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.761	28.5	6.11	
6065	bis(2-Ethylhexyl)phthalate	µg/L	74.2	92.2	31.3 - 123	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.622	83.4	14.8	
6265	Fluoranthene	µg/L	< 5.00	< 15.6	0.00 - 15.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6270	Fluorene	µg/L	30.3	45.5	19.4 - 57.4	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.21	38.3	6.60	
6275	Hexachlorobenzene	µg/L	57.8	87.8	39.2 - 105	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.35	71.6	10.2	
4835	Hexachlorobutadiene	µg/L	34.8	61.4	6.14 - 76.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.0230	34.5	13.5	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
4840	Hexachloroethane	µg/L	< 5.00	< 3.30	0.00 - 3.30	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6315	Indeno(1,2,3-cd)pyrene	µg/L	27.1	34.7	10.5 - 48.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.416	29.5	5.68	
6320	Isophorone	µg/L	51.3	99.4	36.3 - 124	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.05	65.0	13.0	
6385	2-Methylnaphthalene	µg/L	22.0	35.6	5.98 - 47.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.987	27.6	5.68	
5005	Naphthalene	µg/L	40.1	63.3	15.0 - 77.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.420	44.4	10.3	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6465	3-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6470	4-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5015	Nitrobenzene	µg/L	36.7	63.6	20.6 - 76.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.10	47.7	9.96	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6535	N-Nitrosodiphenylamine	µg/L	< 5.00	< 5.60	0.00 - 5.60	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	41.5	72.0	23.2 - 90.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.35	55.9	10.6	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	41.7	60.4	28.2 - 74.2	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.15	49.2	6.50	
6665	Pyrene	µg/L	22.5	30.4	13.0 - 40.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.12	27.4	4.38	
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	34.8	61.6	9.78 - 75.8	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.372	38.9	11.1	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	13.9	21.6	7.99 - 27.2	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.00	17.1	3.16	
5505	Acenaphthylene	µg/L	15.2	23.1	7.63 - 28.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.06	19.4	3.92	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5555	Anthracene	µg/L	19.7	30.0	12.5 - 39.0	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.10	23.9	3.80	
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 8270C 3 1996	1/23/2015				
5575	Benzo(a)anthracene	µg/L	26.9	36.5	16.6 - 45.7	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.760	30.5	4.77	
5585	Benzo(b)fluoranthene	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 8270C 3 1996	1/23/2015				
5600	Benzo(k)fluoranthene	µg/L	< 5.00	< 7.70	0.00 - 7.70	Acceptable	EPA 8270C 3 1996	1/23/2015				
5590	Benzo(g,h,i)perylene	µg/L	15.3	18.6	8.19 - 25.7	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.544	17.0	3.21	
5580	Benzo(a)pyrene	µg/L	< 5.00	< 2.40	0.00 - 2.40	Acceptable	EPA 8270C 3 1996	1/23/2015				
5630	Benzyl alcohol	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5660	4-Bromophenyl-phenylether	µg/L	69.3	103	42.7 - 130	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.10	82.3	11.8	
5670	Butylbenzylphthalate	µg/L	42.3	57.9	15.9 - 78.1	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.807	49.9	9.45	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.00	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	< 10.0	< 3.90	0.00 - 3.90	Acceptable	EPA 8270C 3 1996	1/23/2015				
5765	bis(2-Chloroethyl)ether	µg/L	65.0	91.3	23.8 - 110	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.188	67.6	13.9	
5780	bis(2-Chloroisopropyl)ether	µg/L	< 10.0	< 3.10	0.00 - 3.10	Acceptable	EPA 8270C 3 1996	1/23/2015				
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	< 5.00	< 6.30	0.00 - 6.30	Acceptable	EPA 8270C 3 1996	1/23/2015				
5825	4-Chlorophenyl-phenylether	µg/L	< 5.00	< 9.90	0.00 - 9.90	Acceptable	EPA 8270C 3 1996	1/23/2015				
5855	Chrysene	µg/L	15.0	17.4	8.87 - 24.3	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.424	16.1	2.52	
5895	Dibenz(a,h)anthracene	µg/L	17.7	23.2	8.09 - 34.2	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.789	20.9	4.01	
5905	Dibenzofuran	µg/L	< 5.00	< 11.3	0.00 - 11.3	Acceptable	EPA 8270C 3 1996	1/23/2015				
5925	Di-n-butylphthalate	µg/L	< 10.0	< 15.8	0.00 - 15.8	Acceptable	EPA 8270C 3 1996	1/23/2015				
4610	1,2-Dichlorobenzene	µg/L		44.2	4.42 - 55.7	Not Reported				27.2	8.06	
4615	1,3-Dichlorobenzene	µg/L		149	14.9 - 172	Not Reported				85.1	29.2	
4620	1,4-Dichlorobenzene	µg/L		31.5	4.52 - 38.4	Not Reported				18.9	6.04	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	1/23/2015				
6070	Diethylphthalate	µg/L	< 5.00	< 8.90	0.00 - 8.90	Acceptable	EPA 8270C 3 1996	1/23/2015				
6135	Dimethylphthalate	µg/L	< 5.00	< 11.5	0.00 - 11.5	Acceptable	EPA 8270C 3 1996	1/23/2015				
6185	2,4-Dinitrotoluene	µg/L	59.2	96.6	40.3 - 119	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.36	78.7	14.4	
6190	2,6-Dinitrotoluene	µg/L	45.3	72.6	29.5 - 87.6	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.41	61.3	11.4	
6200	Di-n-octylphthalate	µg/L	23.9	32.4	8.93 - 49.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.761	28.5	6.11	
6065	bis(2-Ethylhexyl)phthalate	µg/L	74.2	92.2	31.3 - 123	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.622	83.4	14.8	
6265	Fluoranthene	µg/L	< 5.00	< 15.6	0.00 - 15.6	Acceptable	EPA 8270C 3 1996	1/23/2015				
6270	Fluorene	µg/L	30.3	45.5	19.4 - 57.4	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.21	38.3	6.60	
6275	Hexachlorobenzene	µg/L	57.8	87.8	39.2 - 105	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.35	71.6	10.2	
4835	Hexachlorobutadiene	µg/L	34.8	61.4	6.14 - 76.7	Acceptable	EPA 8270C 3 1996	1/23/2015	0.0230	34.5	13.5	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	1/23/2015				
4840	Hexachloroethane	µg/L	< 5.00	< 3.30	0.00 - 3.30	Acceptable	EPA 8270C 3 1996	1/23/2015				
6315	Indeno(1,2,3-cd)pyrene	µg/L	27.1	34.7	10.5 - 48.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.416	29.5	5.68	
6320	Isophorone	µg/L	51.3	99.4	36.3 - 124	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.05	65.0	13.0	
6385	2-Methylnaphthalene	µg/L	22.0	35.6	5.98 - 47.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.987	27.6	5.68	
5005	Naphthalene	µg/L	40.1	63.3	15.0 - 77.5	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.420	44.4	10.3	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
6465	3-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
6470	4-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5015	Nitrobenzene	µg/L	36.7	63.6	20.6 - 76.3	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.10	47.7	9.96	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	< 5.00	< 7.50	0.00 - 7.50	Acceptable	EPA 8270C 3 1996	1/23/2015				
6535	N-Nitrosodiphenylamine	µg/L	< 5.00	< 5.60	0.00 - 5.60	Acceptable	EPA 8270C 3 1996	1/23/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	41.5	72.0	23.2 - 90.6	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.35	55.9	10.6	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	41.7	60.4	28.2 - 74.2	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.15	49.2	6.50	
6665	Pyrene	µg/L	22.5	30.4	13.0 - 40.5	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.12	27.4	4.38	
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	34.8	61.6	9.78 - 75.8	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.372	38.9	11.1	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 625 Appendix A 1982	1/23/2015				
5700	4-Chloro-3-methylphenol	µg/L	61.5	78.1	29.7 - 96.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.324	65.1	11.2	
5800	2-Chlorophenol	µg/L	38.4	51.6	15.5 - 62.6	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.159	39.6	7.84	
6000	2,4-Dichlorophenol	µg/L	24.4	32.8	12.7 - 41.3	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.608	27.4	4.92	
6005	2,6-Dichlorophenol	µg/L		104	33.0 - 131	Not Reported				82.8	13.4	
6130	2,4-Dimethylphenol	µg/L	33.4	44.5	13.1 - 56.5	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.0393	33.1	7.58	
6360	4,6-Dinitro-2-methylphenol	µg/L	49.2	83.5	25.4 - 117	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-1.00	61.8	12.6	
6175	2,4-Dinitrophenol	µg/L	51.6	108	10.8 - 155	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.799	69.6	22.6	
6400	2-Methylphenol	µg/L	53.4	67.4	15.6 - 80.7	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.200	51.1	11.6	
6410	4-Methylphenol	µg/L	103	153	15.3 - 197	Acceptable	EPA 625 Appendix A 1982	1/23/2015	0.244	97.1	24.2	
6490	2-Nitrophenol	µg/L	42.8	62.4	17.6 - 79.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.641	49.4	10.3	
6500	4-Nitrophenol	µg/L	84.4	114	11.4 - 154	Acceptable	EPA 625 Appendix A 1982	1/23/2015	1.34	51.9	24.3	
6605	Pentachlorophenol	µg/L	54.0	84.4	26.7 - 115	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.913	68.1	15.5	
6625	Phenol	µg/L	98.1	155	15.5 - 208	Acceptable	EPA 625 Appendix A 1982	1/23/2015	1.29	61.3	28.6	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	72.6	103	37.7 - 128	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.749	85.2	16.8	
6840	2,4,6-Trichlorophenol	µg/L	28.7	40.5	15.6 - 49.9	Acceptable	EPA 625 Appendix A 1982	1/23/2015	-0.773	33.4	6.04	

WP-240 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 8270C 3 1996	1/23/2015				
5700	4-Chloro-3-methylphenol	µg/L	61.5	78.1	29.7 - 96.5	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.324	65.1	11.2	
5800	2-Chlorophenol	µg/L	38.4	51.6	15.5 - 62.6	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.159	39.6	7.84	
6000	2,4-Dichlorophenol	µg/L	24.4	32.8	12.7 - 41.3	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.608	27.4	4.92	
6005	2,6-Dichlorophenol	µg/L		104	33.0 - 131	Not Reported				82.8	13.4	
6130	2,4-Dimethylphenol	µg/L	33.4	44.5	13.1 - 56.5	Acceptable	EPA 8270C 3 1996	1/23/2015	0.0393	33.1	7.58	
6360	4,6-Dinitro-2-methylphenol	µg/L	49.2	83.5	25.4 - 117	Acceptable	EPA 8270C 3 1996	1/23/2015	-1.00	61.8	12.6	
6175	2,4-Dinitrophenol	µg/L	51.6	108	10.8 - 155	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.799	69.6	22.6	
6400	2-Methylphenol	µg/L	53.4	67.4	15.6 - 80.7	Acceptable	EPA 8270C 3 1996	1/23/2015	0.200	51.1	11.6	
6410	4-Methylphenol	µg/L	103	153	15.3 - 197	Acceptable	EPA 8270C 3 1996	1/23/2015	0.244	97.1	24.2	
6490	2-Nitrophenol	µg/L	42.8	62.4	17.6 - 79.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.641	49.4	10.3	
6500	4-Nitrophenol	µg/L	84.4	114	11.4 - 154	Acceptable	EPA 8270C 3 1996	1/23/2015	1.34	51.9	24.3	
6605	Pentachlorophenol	µg/L	54.0	84.4	26.7 - 115	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.913	68.1	15.5	
6625	Phenol	µg/L	98.1	155	15.5 - 208	Acceptable	EPA 8270C 3 1996	1/23/2015	1.29	61.3	28.6	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	72.6	103	37.7 - 128	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.749	85.2	16.8	
6840	2,4,6-Trichlorophenol	µg/L	28.7	40.5	15.6 - 49.9	Acceptable	EPA 8270C 3 1996	1/23/2015	-0.773	33.4	6.04	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	1220	1160	673 - 1580	Acceptable	SM 5320 B-2010 2010	1/28/2015	1.23	1130	71.6	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	1220	1160	673 - 1580	Acceptable	SM5320B 20th ED 1997	1/28/2015	1.23	1130	71.6	

WP-240 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 03/02/15
Study Dates: 01/12/15 - 02/26/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	1220	1160	673 - 1580	Acceptable	EPA 9020B 2 1994	1/28/2015	1.23	1130	71.6	

CERTIFICATE OF RECOGNITION

ERA congratulates

Eurofins Eaton Analytical, Inc - Monrovia

WP-240

For your participation and successful evaluation, we recognize the performance of this laboratory for achieving acceptable evaluation in the following standards.

Acids	Base/Neutrals	Boron	Bromide	Color
Complex Nutrients	Demand	Enterococci	Hardness	Hexavalent Chromium
Mercury	Minerals	Nitrite	pH	Settleable Solids
Silica	Sulfide	Surfactants - MBAS	Tin & Titanium	Total Cyanide
Total Organic Halides (TOX)	Total Phenolics (4-AAP)	Total Residual Chlorine	Trace Metals	Turbidity
Volatiles	WasteWatR™ Coliform MicrobE™			

Kristina Sanchez
Quality Officer

M327601

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

031315G2 Final Report

QuiK™ Response Proficiency Testing

Project # :031315G2

ERA
A Waters Company

April 23, 2015

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016

Fax: 626-386-1139

Enclosed is your final report for ERA's QuiK™Response program. Your final report includes an evaluation of all results submitted by your laboratory to ERA. None of the assigned value(s) or acceptance limits were available to your laboratory at or before the time of reporting.

Please note the following changes to our final reports:

• At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than “0.” In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with "Not Acceptable" evaluations.

• Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a supplemental (QuiK™Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting the quality of your routine data.

The data contained herein are confidential and intended for your use only.

If you are using this report for DMR-QA 34 Corrective Action, please note the following: permittees must submit a copy of this report to your DMRQA Coordinator, along with your corrective action documentation by October 10, 2014. Contract Laboratories should send a copy of this report to your permittees upon receipt.

Thank you for your participation in ERA's QuiK™Response program. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Kristina Sanchez
Quality Officer

cc: Project File Number 031315G2

Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
ANAB-ACLASS	Bill Hirt / 703-836-0025 x 226	All Analytes	2009 TNI
Arizona	Ali Mayfield / (602) 364-0728	All Analytes	2009 TNI
California ELAP	Fred Choske / 510-620-3175	All Analytes	2009 TNI
California WRB (DMRQA)	Renee Spears / 916-341-5583	All Analytes	2009 TNI
Guam	Rodolfo Paulino / 671-475-1655	All Analytes	2009 TNI
Mariana Island	Clarissa T. Bearden / 670-664-8520	All Analytes	2009 TNI
Nevada	Sara Rairick / 775-687-9490	All Analytes	2003 NELAC
New Jersey	Rachel Ellis / 609-777-1749	All Analytes	2009 TNI
New York	ELAP Office / 518-485-5570	All Analytes	2003 NELAC
Oregon	Gary Ward / 503-693-4122	All Analytes	2009 TNI

031315G2 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.

ERA
A Waters Company

Final Report Results For Laboratory
Eurofins Eaton Analytical, Inc - Monrovia

ERA
A Waters Company

2009 TNI Evaluation Report

Project Number: **031315G2**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

031315G2 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	SM 2540 E-1997 1997	4/14/2015	1.33	401	56.0	
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	SM 2540 E-2011 2011	4/14/2015	1.33	401	56.0	
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	SM2540E 22nd ED 2011	4/14/2015	1.33	401	56.0	
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	EPA 160.4 1979	4/14/2015	1.33	401	56.0	
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	EPA 365.1 2 1993	4/1/2015	0.126	3.25	0.138	
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	SM 4500-P E-1999 1999	4/1/2015	0.126	3.25	0.138	

031315G2 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	SM 4500-P E-2011 2011	4/1/2015	0.126	3.25	0.138	
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	SM4500P E 22nd ED 2011	4/1/2015	0.126	3.25	0.138	

ERA
A Waters Company

Final Report Results For Laboratory
Eurofins Eaton Analytical, Inc - Monrovia

ERA
A Waters Company

2003 NELAC Evaluation Report

Project Number: **031315G2**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

031315G2 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	SM 2540 E-1997 1997	4/14/2015	1.33	401	56.0	
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	SM 2540 E-2011 2011	4/14/2015	1.33	401	56.0	
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	SM2540E 22nd ED 2011	4/14/2015	1.33	401	56.0	
WP Volatile Solids (cat# 913) Study Dates: 03/13/15 - 04/23/15												
1970	Volatile Solids, Total	mg/L	476	459	368 - 508	Acceptable	EPA 160.4 1979	4/14/2015	1.33	401	56.0	
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	EPA 365.1 2 1993	4/1/2015	0.126	3.25	0.138	
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	SM 4500-P E-1999 1999	4/1/2015	0.126	3.25	0.138	

031315G2 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: **CA00006**
ERA Customer Number: **M327601**

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	SM 4500-P E-2011 2011	4/1/2015	0.126	3.25	0.138	
WP Simple Nutrients (cat# 505) Study Dates: 03/13/15 - 04/17/15												
1515	Ammonia as N	mg/L		9.33	7.41 - 11.2	Not Reported				9.37	0.525	
1820	Nitrate + Nitrite as N	mg/L		9.70	8.06 - 11.3	Not Reported				9.68	0.461	
1810	Nitrate as N	mg/L		9.70	8.01 - 11.3	Not Reported				9.71	0.494	
1870	ortho-Phosphate as P	mg/L	3.27	3.29	2.80 - 3.78	Acceptable	SM4500P E 22nd ED 2011	4/1/2015	0.126	3.25	0.138	

eurofins | Eaton Analytical

April 17, 2015

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program
PO Box 100
Sacramento, CA 95812-0100

RE: Eurofins Eaton-Monrovia: ELAP Certificate No. 2813; EPA ID: CA00006
Eurofins Eaton-Colton: ELAP Certificate No. 2812; EPA ID: CA01622
ERA WS-222 & ERA WP-240 January Study Corrective Action Reports

Dear Ms. Sotelo:

Please find attached EEAI's corrective action reports for methods and analytes that failed ERA WS-222 & WP-240, January 2015 Full PT studies for our Monrovia and Colton facilities.

For our Monrovia facility, the lab participated in ERA 'Quik' response PT # 031315G1 and #031315G2 as makeup PTs for Not Acceptable results, and ERA 'Quik' response PT 031015I as makeup PT for our Colton facility.

Corrective actions are being implemented to eliminate the problems. Internal QC check samples were provided to the analysts to determine if corrective actions implemented are effective in eliminating the problems.

If you have any questions, please call me at 626-386-1117 or our QA Officer, Nilda Cox, at 626-386-1170. Our email addresses are NildaCox@eurofinsus.com and AlmaCapati@eurofinsus.com.

Thank you.

Sincerely,

Alma Capati
QA Assistant

Corrective Action Report

For Not Acceptable Value Reported

PT Study: **ERA WP-240 January 2015 PT Study**

Corrective Action Report No.: 1

eurofins | Eaton Analytical

Sample Information		
Department:	Inorganics	
Method(s):	EPA 160.4 / SM 2540E	
Analyte(s):	Volatile Solids, Total	
Sample ID:	WP Volatile Solids	
Sample No.:	201501150150	
Group No.:	516176	
Date Analyzed:	1/20/2015	
Analyst:	Robert Figueroa	
Reported Value:	278	mg/L
True Value:	205	mg/L
% Recovery:	136%	
Acceptance Limits:		137-249 mg/L (67-121 %)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)		
Native	278	mg/L
Duplicate	254	mg/L
RPD_Dup	9%	
TVS Check	43.0	mg/L
True Value	42.8+/-8.4	mg/L

Problem Identification (Root Cause Analysis)

- ____ Dilution Error
- ____ QC Limits not met
- ____ SOP not followed
- ____ Calculation Error
- ____ Lab Contamination
- ____ Log in Error
- ____ Training
- ____ Reporting Error
- ____ Instrument Problems
- ____ Standards Problems
- ____ Other

Internal QC Check

Result =	260	mg/L
Spike Value =	242	mg/L
% Recovery =	107%	
Acceptance Limits	193-271	mg/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

Problem was not identified yet. All QCSs are acceptable. Problem will be further investigated.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical will participate in ERA's 'Quik' response PT 031315G2 as make up study. Result of the make up PT is not available yet.

Analyst : Robert Figueroa Date: 4/17/15
Robert Figueroa

Technical Manager: Walter M. Hsieh (for WBH) Date: 17 Apr 15
Walter Hsieh

Quality Manager: Nilda Cox Date: 4/17/2015
Nilda Cox

Laboratory Director: Linda Geddes FOR DEL Date: 4/17/15
Dennis Leeke

Corrective Action Report
For Not Acceptable Value Reported

PT Study: **ERA WP-240 January 2015 PT Study**

Corrective Action Report No.: 2

eurofins | Eaton Analytical

Sample Information		
Department:	Inorganics	
Method(s):	EPA 365.1 / SM 4500-PE	
Analyte(s):	Ortho-phosphate as P	
Sample ID:	WP Simple Nutrients	
Sample No.:	201501150151	
Group No.:	516176	
Date Analyzed:	1/22/2015	
Analyst:	Brian Wollard	
Reported Value:	1.24	mg/L
True Value:	1.05	mg/L
% Recovery:	118%	
Acceptance Limits:		0.892-1.21 mg/L (85-115 %)
Performance Evaluation:		Not Acceptable

Batch QC Results (% Recovery)	
LCS1	102
LCS2	94
RPD_LCS	8
MS	107
MSD	106
RPD_MS	1

Problem Identification (Root Cause Analysis)			
x	Dilution Error		Instrument Problems
	QC Limits not met		Standards Problems
	SOP not followed		Other
	Calculation Error		*Analyst expressed the residual concentrate left at the bottom of the volumetric pipette into the primary solution. This resulted in a slight high bias to the primary solution.*
	Lab Contamination		
	Log in Error		
x	Training		
	Reporting Error		

Internal QC Check		
Result =	4.68	mg/L
Spike Value	4.75	mg/L
% Recovery	99%	
Acceptance Limits	4.24-5.27	mg/L
Evaluation =	Acceptable	

Corrective Action Taken To Prevent Reoccurrence of Problem:

In making the dilution for the analysis, the analyst pipetted an exact volume into a 50ml centrifuge tube, and filled it to the mark with DI water. The analyst has been trained to leave the residual in the volumetric pipette, and to dispense measured volumes of diluent and primary solutions rather than relying on volume marks on a centrifuge tube whose calibration is unknown.

Follow-up Schedule / Track Progress:

An Internal QC Check/QC Standard (single blind) was provided to the analyst to determine if the problem is resolved. Result of the QC Standard was acceptable. Also, Eurofins Eaton Analytical participated in ERA's 'Quik' response PT 031315G2 as make up study. Result of the make up PT was acceptable.

Analyst : Brian Wollard Date: 4/17/15

Technical Manager: Cheryl M Ramnie (for Walter Hsieh) Walter Hsieh Date: 17 Apr 15

Quality Manager: Nilda B. Cox Nilda Cox Date: 4/17/2015

Laboratory Director: Linda Geddes for DL Dennis Leeke Date: 4/17/15

ERA
A Waters Company

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
USA

WP-246 Final Report

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 07/13/15

Close Date: 08/27/15

Report Issued Date: 08/31/15

ERA
A Waters Company

August 31, 2015

Nilda B. Cox
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016

Enclosed is your final report for ERA's WP-246 WatR™Pollution Proficiency Testing (PT) study. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All analytes in ERA's WP-246 WatR™Pollution Proficiency Testing study have been evaluated using the following tiered approach. If the analyte is listed in the current TNI Fields of Proficiency Testing (FoPT) tables, the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the current TNI FoPT tables. If the analyte is not included in the TNI FoPT tables, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260).

Corrective Action Help: As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a Supplemental (QuiK™Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting your routine data quality. Our laboratory and technical staff have many years of collective experience in performing the full range of environmental analyses. As part of our technical support, ERA offers QC samples that can be useful in helping you work through your technical issues.

At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than “0.” In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with "Not Acceptable" evaluations.

Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

Thank you for your participation in ERA's WP-246 WatR™Pollution Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Kristina Sanchez
Quality Officer

attachments

Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
Arizona	Ali Mayfield / (602) 364-0728	All Analytes	2009 TNI
Nevada	Don LaFara / 775-687-9491	All Analytes	2003 NELAC
New Jersey	Rachel Ellis / 609-777-1749	All Analytes	2009 TNI
New York	ELAP Office / 518-485-5570	All Analytes	2003 NELAC
Oregon	Gary Ward / 503-693-4122	All Analytes	2009 TNI

WP-246 Definitions & Study Discussion

Study Dates: 07/13/15 - 08/27/15 **Report Issued: 08/31/15**

WP Study Definitions

The Reported Value is the value that the laboratory reported to ERA.

The ERA Assigned Values are compliant with the most current TNI Fields of Proficiency Testing (FoPT) tables. A parameter not added to the standard is given an Assigned Value of "< PTRL" per the guidelines contained in the 2009 TNI Standards. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT standards.

The Acceptance Limits are established per the criteria contained in the most current USEPA/NELAC FoPT tables, or ERA's SOP for the Generation of Performance Acceptance Limits™ as applicable.

The Performance Evaluation:

Acceptable	= Reported Value falls within the Acceptance Limits.
Not Acceptable	= Reported Value falls outside the Acceptance Limits.
No Evaluation	= Reported Value cannot be evaluated.
Not Reported	= No Value reported.

The Method Description is the method the laboratory reported to ERA.

WP Study Discussion

ERA's WP-246 WatR™Pollution Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI PT Standard and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) tables.

ERA's WP-246 WatR™Pollution study standards were examined for any anomalies. A full review of all homogeneity, stability and accuracy verification data was completed. All analytical verification data for all analytes met the acceptance criteria contained in the 2009 TNI PT Standard and the criteria contained in the most current TNI FoPT tables.

The data submitted by participating laboratories was also examined for study anomalies. There were no anomalies observed during the statistical review of the data.

ERA's WP-246 WatR™Pollution study reports shall not be reproduced except in their entirety and not without the permission of the participating laboratories. The report must not be used by the participating laboratories to claim product endorsement by any agency of the U. S. government.

The data contained herein are confidential and intended for your use only.

If you have any questions or concerns regarding your assessment in ERA's WatR™Pollution Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.

WP-246 Laboratory Exception Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID:	**CA00006**
ERA Customer Number:	**M327601**
Report Issued:	**08/31/15**
Study Dates:	**07/13/15 - 08/27/15**

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.

ERA
A Waters Company

Final Report Results For Laboratory
Eurofins Eaton Analytical, Inc - Monrovia

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-246**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM 2320 B-1997 1997	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L	45.4	44.5	38.4 - 50.7	Acceptable	EPA 300.0 2.1 1993	7/28/2015	0.909	43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM 2510 B-1997 1997	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	SM 4500-F C-1997 1997	7/27/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L	21.5	21.2	17.0 - 25.4	Acceptable	EPA 200.7 4.4 1994	8/6/2015	0.941	20.5	1.03	
1155	Sodium	mg/L	75.0	74.9	59.9 - 89.9	Acceptable	EPA 200.7 4.4 1994	8/6/2015	0.529	72.9	4.04	
2000	Sulfate	mg/L	18.6	18.4	14.4 - 21.6	Acceptable	EPA 300.0 2.1 1993	7/28/2015	0.933	17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM 2540 C-1997 1997	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM 2540 B-1997 1997	8/4/2015	0.215	340	17.7	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM 2320 B-2011 2011	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L	45.4	44.5	38.4 - 50.7	Acceptable	EPA 9056 1994	7/28/2015	0.909	43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM 2510 B-2011 2011	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	SM4500F- C 20th ED 1997	7/27/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L	21.5	21.2	17.0 - 25.4	Acceptable	EPA 6010B 2 1996	8/6/2015	0.941	20.5	1.03	
1155	Sodium	mg/L	75.0	74.9	59.9 - 89.9	Acceptable	EPA 6010B 2 1996	8/6/2015	0.529	72.9	4.04	
2000	Sulfate	mg/L	18.6	18.4	14.4 - 21.6	Acceptable	EPA 9056 1994	7/28/2015	0.933	17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM 2540 C-2011 2011	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM 2510 B-2011 2011	8/4/2015	0.215	340	17.7	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM2320B 22nd ED 2011	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM2510B 22nd ED 2011	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	SM4500F- C 22nd ED 2011	7/27/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM2540C 22nd ED 2011	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM2540B 22nd ED 2011	8/4/2015	0.215	340	17.7	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM2320B 20th ED 1997	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM2510B 20th ED 1997	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.96	3.03	2.44 - 3.50	Acceptable	EPA 300.0 2.1 1993	8/12/2015	0.149	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM2540C 20th ED 1997	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM2540B 20th ED 1997	8/4/2015	0.215	340	17.7	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		99.2	84.3 - 114	Not Reported				98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	EPA 120.1 1982	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.96	3.03	2.44 - 3.50	Acceptable	EPA 9056 1994	8/12/2015	0.149	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L		337	292 - 382	Not Reported				326	16.4	
1950	Total Solids at 105°C	mg/L		351	306 - 396	Not Reported				340	17.7	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		99.2	84.3 - 114	Not Reported				98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	EPA 9050A 1 1996	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	EPA 9214 1996	8/12/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L		337	292 - 382	Not Reported				326	16.4	
1950	Total Solids at 105°C	mg/L		351	306 - 396	Not Reported				340	17.7	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM 2540 D-1997 1997	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L	26.0	24.0	20.4 - 27.6	Acceptable	EPA 200.7 4.4 1994	8/6/2015	1.66	23.8	1.29	
1085	Magnesium	mg/L	38.5	33.8	28.7 - 38.9	Acceptable	EPA 200.7 4.4 1994	8/6/2015	2.66	33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	EPA 200.7 4.4 1994	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	EPA 200.7 4.4 1994	8/7/2015	3.07	195	9.00	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM 2540 D-2011 2011	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L	26.0	24.0	20.4 - 27.6	Acceptable	EPA 6010B 2 1996	8/6/2015	1.66	23.8	1.29	
1085	Magnesium	mg/L	38.5	33.8	28.7 - 38.9	Acceptable	EPA 6010B 2 1996	8/6/2015	2.66	33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	SM 2340 B-1997 1997	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	SM 2340 B-1997 1997	8/7/2015	3.07	195	9.00	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM2540D 20th ED 1997	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L		24.0	20.4 - 27.6	Not Reported				23.8	1.29	
1085	Magnesium	mg/L		33.8	28.7 - 38.9	Not Reported				33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	SM2340B 20th ED 1997	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	SM2340B 20th ED 1997	8/7/2015	3.07	195	9.00	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM2540D 22nd ED 2011	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L		24.0	20.4 - 27.6	Not Reported				23.8	1.29	
1085	Magnesium	mg/L		33.8	28.7 - 38.9	Not Reported				33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	SM2340B 22nd ED 2011	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	SM2340B 22nd ED 2011	8/7/2015	3.07	195	9.00	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	SM4500H+ B 20th ED 1996	7/27/2015	-0.856	6.11	0.0488	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	SM 4500-H+ B-2000 2000	7/27/2015	-0.856	6.11	0.0488	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	SM4500H+ B 22nd ED 2011	7/27/2015	-0.856	6.11	0.0488	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	EPA 9040B 2 1995	7/27/2015	-0.856	6.11	0.0488	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	27.0	26.0	21.1 - 33.1	Acceptable	SM2540F 20th ED 1997	8/5/2015	-0.431	27.8	1.97	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	27.0	26.0	21.1 - 33.1	Acceptable	SM 2540 F-1997 1997	8/5/2015	-0.431	27.8	1.97	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	27.0	26.0	21.1 - 33.1	Acceptable	SM2540F 22nd ED 2011	8/5/2015	-0.431	27.8	1.97	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	SM2540E 20th ED	7/23/2015	-2.06	142	17.5	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	SM 2540 E-1997 1997	7/23/2015	-2.06	142	17.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	EPA 160.4 1979	7/23/2015	-2.06	142	17.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	SM2540E 22nd ED 2011	7/23/2015	-2.06	142	17.5	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	EPA 350.1 2 1993	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L	9.45	9.49	7.88 - 11.0	Acceptable	EPA 353.2 2 1993	7/30/2015	-0.0939	9.49	0.453	
1810	Nitrate as N	mg/L	9.45	9.49	7.83 - 11.1	Acceptable	EPA 353.2 2 1993	7/30/2015	-0.101	9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	EPA 365.1 2 1993	7/17/2015	1.55	2.38	0.133	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	SM4500NH3 H 20th ED 1997	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L	9.29	9.49	7.88 - 11.0	Acceptable	EPA 300.0 2.1 1993	8/6/2015	-0.447	9.49	0.453	
1810	Nitrate as N	mg/L	9.29	9.49	7.83 - 11.1	Acceptable	EPA 300.0 2.1 1993	8/6/2015	-0.437	9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	SM4500P E 20th ED 1997	7/17/2015	1.55	2.38	0.133	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	SM4500NH3 H 22nd ED 2011	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L	9.29	9.49	7.88 - 11.0	Acceptable	EPA 9056 1994	8/6/2015	-0.447	9.49	0.453	
1810	Nitrate as N	mg/L	9.29	9.49	7.83 - 11.1	Acceptable	EPA 9056 1994	8/6/2015	-0.437	9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	SM4500P E 22nd ED 2011	7/17/2015	1.55	2.38	0.133	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	SM 4500-NH3 H-1997 1997	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L		9.49	7.88 - 11.0	Not Reported				9.49	0.453	
1810	Nitrate as N	mg/L		9.49	7.83 - 11.1	Not Reported				9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	SM 4500-P E-1999 1999	7/17/2015	1.55	2.38	0.133	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L	19.0	19.7	14.7 - 23.9	Acceptable	EPA 351.2 2 1993	7/30/2015	-0.430	19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	EPA 365.1 2 1993	7/30/2015	0.991	6.45	0.350	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		19.7	14.7 - 23.9	Not Reported				19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	SM4500P E 20th ED 1997	7/30/2015	0.991	6.45	0.350	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		19.7	14.7 - 23.9	Not Reported				19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	SM4500P E 22nd ED 2011	7/30/2015	0.991	6.45	0.350	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		19.7	14.7 - 23.9	Not Reported				19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	SM 4500-P E-1999 1999	7/30/2015	0.991	6.45	0.350	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.38	1.32	1.09 - 1.54	Acceptable	EPA 300.0 2.1 1993	7/30/2015	0.707	1.32	0.0812	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.43	1.32	1.09 - 1.54	Acceptable	EPA 300.1 1 2000	7/30/2015	1.32	1.32	0.0812	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.33	1.32	1.09 - 1.54	Acceptable	EPA 353.2 2 1993	7/29/2015	0.0914	1.32	0.0812	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.38	1.32	1.09 - 1.54	Acceptable	EPA 9056 1994	7/30/2015	0.707	1.32	0.0812	
WP Demand (cat# 578)												
1530	BOD	mg/L	19.5	31.8	15.9 - 47.6	Acceptable	SM5210B 22nd ED 2011	7/17/2015	-2.26	31.8	5.43	
1555	CBOD	mg/L	23.8	28.8	11.9 - 45.7	Acceptable	SM5210B 22nd ED 2011	7/17/2015	-0.963	29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	SM5220D 22nd ED 2011	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L	21.0	20.1	16.2 - 24.0	Acceptable	SM5310C 22nd ED 2011	7/18/2015	0.329	20.5	1.37	
WP Demand (cat# 578)												
1530	BOD	mg/L	19.5	31.8	15.9 - 47.6	Acceptable	SM5210B 21st ED 2001	7/17/2015	-2.26	31.8	5.43	
1555	CBOD	mg/L	23.8	28.8	11.9 - 45.7	Acceptable	SM5210B 21st ED 2001	7/17/2015	-0.963	29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	SM5220D 21st ED 1997	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L	21.0	20.1	16.2 - 24.0	Acceptable	SM5310C 21st ED 2000	7/18/2015	0.329	20.5	1.37	
WP Demand (cat# 578)												
1530	BOD	mg/L	19.5	31.8	15.9 - 47.6	Acceptable	SM 5210 B-2001 2001	7/17/2015	-2.26	31.8	5.43	
1555	CBOD	mg/L	23.8	28.8	11.9 - 45.7	Acceptable	SM 5210 B-2001 2001	7/17/2015	-0.963	29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	SM 5220 D-1997 1997	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L	21.0	20.1	16.2 - 24.0	Acceptable	SM 5310 C-2000 2000	7/18/2015	0.329	20.5	1.37	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L		31.8	15.9 - 47.6	Not Reported				31.8	5.43	
1555	CBOD	mg/L		28.8	11.9 - 45.7	Not Reported				29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	EPA 410.4 2 1993	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L		20.1	16.2 - 24.0	Not Reported				20.5	1.37	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1300	1290	1060 - 1490	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.0291	1300	78.1	
1005	Antimony	µg/L	465	484	390 - 563	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.521	478	24.8	
1010	Arsenic	µg/L	863	814	690 - 927	Acceptable	EPA 200.8 5.4 1994	8/5/2015	1.80	799	35.5	
1015	Barium	µg/L	1660	1690	1440 - 1940	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.412	1690	66.7	
1020	Beryllium	µg/L	365	364	309 - 419	Acceptable	EPA 200.8 5.4 1994	8/5/2015	0.0453	364	17.5	
1025	Boron	µg/L		1300	1100 - 1500	Not Reported				1310	87.3	
1030	Cadmium	µg/L	532	519	441 - 597	Acceptable	EPA 200.8 5.4 1994	8/5/2015	0.717	517	21.5	
1040	Chromium	µg/L	529	548	466 - 630	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.955	550	21.9	
1050	Cobalt	µg/L	426	422	359 - 485	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.927	443	18.7	
1055	Copper	µg/L	368	371	315 - 427	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.348	375	18.8	
1070	Iron	µg/L		1870	1590 - 2150	Not Reported				1890	80.2	
1075	Lead	µg/L	1120	1180	1000 - 1360	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-1.19	1190	59.5	
1090	Manganese	µg/L	798	806	685 - 927	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-1.00	834	35.9	
1100	Molybdenum	µg/L	303	306	263 - 346	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.0138	303	13.2	
1105	Nickel	µg/L	1570	1680	1490 - 1880	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-1.28	1660	74.2	
1140	Selenium	µg/L	858	771	655 - 887	Acceptable	EPA 200.8 5.4 1994	8/7/2015	2.50	761	38.6	
1150	Silver	µg/L	508	511	434 - 588	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.182	513	28.4	
1160	Strontium	µg/L		83.9	71.3 - 96.5	Not Reported				91.2	3.65	
1165	Thallium	µg/L	165	168	129 - 203	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.228	167	9.29	
1185	Vanadium	µg/L	482	500	425 - 575	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.782	496	18.1	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1580	1430	1220 - 1640	Acceptable	EPA 200.8 5.4 1994	8/7/2015	1.86	1440	76.3	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1300	1290	1060 - 1490	Acceptable	EPA 6020	8/5/2015	-0.0291	1300	78.1	
1005	Antimony	µg/L	465	484	390 - 563	Acceptable	EPA 6020	8/5/2015	-0.521	478	24.8	
1010	Arsenic	µg/L	863	814	690 - 927	Acceptable	EPA 6020	8/5/2015	1.80	799	35.5	
1015	Barium	µg/L	1660	1690	1440 - 1940	Acceptable	EPA 6020	8/5/2015	-0.412	1690	66.7	
1020	Beryllium	µg/L	365	364	309 - 419	Acceptable	EPA 6020	8/5/2015	0.0453	364	17.5	
1025	Boron	µg/L		1300	1100 - 1500	Not Reported				1310	87.3	
1030	Cadmium	µg/L	532	519	441 - 597	Acceptable	EPA 6020	8/5/2015	0.717	517	21.5	
1040	Chromium	µg/L	529	548	466 - 630	Acceptable	EPA 6020	8/5/2015	-0.955	550	21.9	
1050	Cobalt	µg/L	426	422	359 - 485	Acceptable	EPA 6020	8/5/2015	-0.927	443	18.7	
1055	Copper	µg/L	368	371	315 - 427	Acceptable	EPA 6020	8/5/2015	-0.348	375	18.8	
1070	Iron	µg/L		1870	1590 - 2150	Not Reported				1890	80.2	
1075	Lead	µg/L	1120	1180	1000 - 1360	Acceptable	EPA 6020	8/5/2015	-1.19	1190	59.5	
1090	Manganese	µg/L	798	806	685 - 927	Acceptable	EPA 6020	8/5/2015	-1.00	834	35.9	
1100	Molybdenum	µg/L	303	306	263 - 346	Acceptable	EPA 6020	8/5/2015	-0.0138	303	13.2	
1105	Nickel	µg/L	1570	1680	1490 - 1880	Acceptable	EPA 6020	8/5/2015	-1.28	1660	74.2	
1140	Selenium	µg/L	858	771	655 - 887	Acceptable	EPA 6020	8/7/2015	2.50	761	38.6	
1150	Silver	µg/L	508	511	434 - 588	Acceptable	EPA 6020	8/5/2015	-0.182	513	28.4	
1160	Strontium	µg/L		83.9	71.3 - 96.5	Not Reported				91.2	3.65	
1165	Thallium	µg/L	165	168	129 - 203	Acceptable	EPA 6020	8/5/2015	-0.228	167	9.29	
1185	Vanadium	µg/L	482	500	425 - 575	Acceptable	EPA 6020	8/5/2015	-0.782	496	18.1	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1580	1430	1220 - 1640	Acceptable	EPA 6020	8/7/2015	1.86	1440	76.3	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1260	1290	1060 - 1490	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.541	1300	78.1	
1005	Antimony	µg/L	466	484	390 - 563	Acceptable	EPA 200.7 4.4 1994	8/11/2015	-0.481	478	24.8	
1010	Arsenic	µg/L		814	690 - 927	Not Reported				799	35.5	
1015	Barium	µg/L	1670	1690	1440 - 1940	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.262	1690	66.7	
1020	Beryllium	µg/L	363	364	309 - 419	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.0691	364	17.5	
1025	Boron	µg/L	1220	1300	1100 - 1500	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-1.04	1310	87.3	
1030	Cadmium	µg/L	507	519	441 - 597	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.445	517	21.5	
1040	Chromium	µg/L	533	548	466 - 630	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.773	550	21.9	
1050	Cobalt	µg/L	444	422	359 - 485	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.0367	443	18.7	
1055	Copper	µg/L	358	371	315 - 427	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.880	375	18.8	
1070	Iron	µg/L	1880	1870	1590 - 2150	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.160	1890	80.2	
1075	Lead	µg/L	1180	1180	1000 - 1360	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.180	1190	59.5	
1090	Manganese	µg/L	838	806	685 - 927	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.112	834	35.9	
1100	Molybdenum	µg/L	300	306	263 - 346	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.241	303	13.2	
1105	Nickel	µg/L	1700	1680	1490 - 1880	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.474	1660	74.2	
1140	Selenium	µg/L		771	655 - 887	Not Reported				761	38.6	
1150	Silver	µg/L	498	511	434 - 588	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.534	513	28.4	
1160	Strontium	µg/L	90.8	83.9	71.3 - 96.5	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.120	91.2	3.65	
1165	Thallium	µg/L	155	168	129 - 203	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-1.30	167	9.29	
1185	Vanadium	µg/L	485	500	425 - 575	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.617	496	18.1	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1420	1430	1220 - 1640	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.240	1440	76.3	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1260	1290	1060 - 1490	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.541	1300	78.1	
1005	Antimony	µg/L	466	484	390 - 563	Acceptable	EPA 6010B 2 1996	8/11/2015	-0.481	478	24.8	
1010	Arsenic	µg/L		814	690 - 927	Not Reported				799	35.5	
1015	Barium	µg/L	1670	1690	1440 - 1940	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.262	1690	66.7	
1020	Beryllium	µg/L	363	364	309 - 419	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.0691	364	17.5	
1025	Boron	µg/L	1220	1300	1100 - 1500	Acceptable	EPA 6010B 2 1996	8/10/2015	-1.04	1310	87.3	
1030	Cadmium	µg/L	507	519	441 - 597	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.445	517	21.5	
1040	Chromium	µg/L	533	548	466 - 630	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.773	550	21.9	
1050	Cobalt	µg/L	444	422	359 - 485	Acceptable	EPA 6010B 2 1996	8/10/2015	0.0367	443	18.7	
1055	Copper	µg/L	358	371	315 - 427	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.880	375	18.8	
1070	Iron	µg/L	1880	1870	1590 - 2150	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.160	1890	80.2	
1075	Lead	µg/L	1180	1180	1000 - 1360	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.180	1190	59.5	
1090	Manganese	µg/L	838	806	685 - 927	Acceptable	EPA 6010B 2 1996	8/10/2015	0.112	834	35.9	
1100	Molybdenum	µg/L	300	306	263 - 346	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.241	303	13.2	
1105	Nickel	µg/L	1700	1680	1490 - 1880	Acceptable	EPA 6010B 2 1996	8/10/2015	0.474	1660	74.2	
1140	Selenium	µg/L		771	655 - 887	Not Reported				761	38.6	
1150	Silver	µg/L	498	511	434 - 588	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.534	513	28.4	
1160	Strontium	µg/L	90.8	83.9	71.3 - 96.5	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.120	91.2	3.65	
1165	Thallium	µg/L	155	168	129 - 203	Acceptable	EPA 6010B 2 1996	8/10/2015	-1.30	167	9.29	
1185	Vanadium	µg/L	485	500	425 - 575	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.617	496	18.1	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1420	1430	1220 - 1640	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.240	1440	76.3	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.12	7.84	5.49 - 10.2	Acceptable	EPA 245.1 3 1994	7/31/2015	0.603	7.72	0.668	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.12	7.84	5.49 - 10.2	Acceptable	EPA 7470A 1 1994	7/31/2015	0.603	7.72	0.668	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	EPA 218.6 3.3 1994	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	SM3500Cr B 20th ED 1997	7/17/2015	0.705	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	EPA 7199 1996	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	SM 3500-Cr C-2009 2009	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	EPA 7196A 1 1992	7/17/2015	0.705	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	SM3500Cr C 20th ED 1997	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	SM 3500-Cr B-2009 2009	7/17/2015	0.705	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	SM3500Cr B 22nd ED 2011	7/17/2015	0.705	702	32.0	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	SM3500Cr C 22nd ED 2011	7/17/2015	-0.108	702	32.0	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	848	892	624 - 1160	Acceptable	EPA 200.7 4.4 1994	7/27/2015	-0.619	878	47.7	
1180	Titanium	µg/L	76.6	78.7	66.9 - 90.5	Acceptable	EPA 200.7 4.4 1994	7/27/2015	-0.406	78.0	3.53	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	858	892	624 - 1160	Acceptable	EPA 200.8 5.4 1994	7/27/2015	-0.410	878	47.7	
1180	Titanium	µg/L	82.2	78.7	66.9 - 90.5	Acceptable	EPA 200.8 5.4 1994	7/27/2015	1.18	78.0	3.53	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	848	892	624 - 1160	Acceptable	EPA 6010B 2 1996	7/27/2015	-0.619	878	47.7	
1180	Titanium	µg/L	76.6	78.7	66.9 - 90.5	Acceptable	EPA 6010B 2 1996	7/27/2015	-0.406	78.0	3.53	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	858	892	624 - 1160	Acceptable	EPA 6020 1994	7/27/2015	-0.410	878	47.7	
1180	Titanium	µg/L	82.2	78.7	66.9 - 90.5	Acceptable	EPA 6020 1994	7/27/2015	1.18	78.0	3.53	
WP Color (cat# 882)												
1605	Color	PC units	25.0	25.0	14.2 - 34.4	Acceptable	SM 2120 B-2001 2001	7/27/2015	0.280	24.0	3.61	
WP Color (cat# 882)												
1605	Color	PC units	25.0	25.0	14.2 - 34.4	Acceptable	SM2120B 22nd ED 2011	7/27/2015	0.280	24.0	3.61	
WP Color (cat# 882)												
1605	Color	PC units	25.0	25.0	14.2 - 34.4	Acceptable	SM2120B 20th ED 1993	7/27/2015	0.280	24.0	3.61	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	EPA 180.1 2 1993	7/24/2015	-0.296	3.00	0.248	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	SM 2130 B-2001 2001	7/24/2015	-0.296	3.00	0.248	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	SM2130B 22nd ED 2011	7/24/2015	-0.296	3.00	0.248	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	SM2130B 20th ED 1994	7/24/2015	-0.296	3.00	0.248	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	EPA 335.4 1993	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	SM 4500-CN F-2011 2011	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	SM4500CN F 22nd ED 2011	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	SM4500CN F 20th ED 1997	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	EPA 9012B 2002	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.542	0.598	0.389 - 0.807	Acceptable	OIA 1677 2004	8/5/2015	-0.748	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	225	219	164 - 274	Acceptable	EPA 200.7 4.4 1994	8/10/2015	1.03	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	225	219	164 - 274	Acceptable	EPA 6010B 2 1996	8/10/2015	1.03	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	213	219	164 - 274	Acceptable	SM4500SiO2 C 20th ED 1997	8/6/2015	0.0359	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	213	219	164 - 274	Acceptable	SM4500SiO2 C 22nd ED 2011	8/6/2015	0.0359	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	213	219	164 - 274	Acceptable	SM 4500-SiO2 C-1997 1997	8/6/2015	0.0359	213	12.0	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	EPA 376.2 1978	7/28/2015	-1.09	5.27	1.14	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	SM 4500-S2 D-2000 2000	7/28/2015	-1.09	5.27	1.14	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	SM4500S2- D 20th ED 1997	7/28/2015	-1.09	5.27	1.14	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	SM4500S2- D 22nd ED 2011	7/28/2015	-1.09	5.27	1.14	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.657	0.543	0.329 - 0.789	Acceptable	SM 5540 C-2000 2000	7/22/2015	1.10	0.561	0.0869	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.657	0.543	0.329 - 0.789	Acceptable	SM5540C 20th ED 1993	7/22/2015	1.10	0.561	0.0869	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.657	0.543	0.329 - 0.789	Acceptable	SM5540C 22nd ED 2011	7/22/2015	1.10	0.561	0.0869	
WP Boron (cat# 886)												
1025	Boron	µg/L	1080	1160	986 - 1330	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.157	1080	26.0	
WP Boron (cat# 886)												
1025	Boron	µg/L	1080	1160	986 - 1330	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.157	1080	26.0	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	4.63	4.58	3.75 - 5.39	Acceptable	EPA 300.0 2.1 1993	8/14/2015	0.0268	4.62	0.309	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	4.63	4.58	3.75 - 5.39	Acceptable	EPA 9056 1994	8/14/2015	0.0268	4.62	0.309	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	4.58	4.58	3.75 - 5.39	Acceptable	EPA 300.1 1 2000	8/11/2015	-0.135	4.62	0.309	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	0.900	0.872	0.652 - 1.06	Acceptable	SM 4500-Cl G-2000 2000	7/23/2015	0.920	0.841	0.0638	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	0.900	0.872	0.652 - 1.06	Acceptable	SM4500Cl G 20th ED 1993	7/23/2015	0.920	0.841	0.0638	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	0.900	0.872	0.652 - 1.06	Acceptable	SM4500Cl G 22nd ED 2011	7/23/2015	0.920	0.841	0.0638	

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-246**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	220	330	51.2 - 985	Acceptable	SM 9221 B-2006 2006	8/4/2015	-0.0295	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL	220	330	26.5 - 1040	Acceptable	SM 9221 E + C-2006 2006	8/4/2015	0.320	166	169	
2525	E.coli (MPN)	MPN/100mL	220	330	71.4 - 743	Acceptable	SM 9221 B.1 + F-2006 2006	8/6/2015	-0.0924	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	220	330	51.2 - 985	Acceptable	SM9221B 22nd ED 2006	8/4/2015	-0.0295	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL	220	330	26.5 - 1040	Acceptable	SM9221C 22nd ED 2006	8/4/2015	0.320	166	169	
2525	E.coli (MPN)	MPN/100mL	220	330	71.4 - 743	Acceptable	SM9221F 22nd ED 2006	8/6/2015	-0.0924	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	140	330	51.2 - 985	Acceptable	SM 9223 B-2004 2004	8/6/2015	-0.543	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	140	330	71.4 - 743	Acceptable	SM 9223 B-2004 2004	8/6/2015	-0.807	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	140	330	51.2 - 985	Acceptable	SM9223 COLILERT 22nd ED 2004	8/6/2015	-0.543	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	140	330	71.4 - 743	Acceptable	SM9223 COLILERT 22nd ED 2004	8/6/2015	-0.807	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	130	330	51.2 - 985	Acceptable	SM9223 COLert18 22nd ED 2004	8/6/2015	-0.608	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	130	330	71.4 - 743	Acceptable	SM9223 COLert18 22nd ED 2004	8/6/2015	-0.897	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	130	330	51.2 - 985	Acceptable	SM 9223 B (Colilert®-18)-1997 1997	8/6/2015	-0.608	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	130	330	71.4 - 743	Acceptable	SM 9223 B (Colilert®-18)-1997 1997	8/6/2015	-0.897	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	291	330	51.2 - 985	Acceptable	SM9223 COLertQT 20th ED 1998	8/5/2015	0.427	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	291	330	71.4 - 743	Acceptable	SM9223 COLertQT 20th ED 1998	8/5/2015	0.542	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	291	330	51.2 - 985	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	8/5/2015	0.427	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	291	330	71.4 - 743	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	8/5/2015	0.542	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	210	330	51.2 - 985	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	8/5/2015	-0.0938	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	210	330	71.4 - 743	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	8/5/2015	-0.182	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	210	330	51.2 - 985	Acceptable	SM9223 COLt18QT 21st ED	8/5/2015	-0.0938	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	210	330	71.4 - 743	Acceptable	SM9223 COLt18QT 21st ED	8/5/2015	-0.182	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		128	49.0 - 212	Not Reported				102	27.3	
2520	Enterococci (MPN)	MPN/100mL	109	164	37.0 - 334	Acceptable	SM 9230 D Enterolert®	8/5/2015	-0.0430	111	49.4	
2540	Fecal Streptococci (MF)	CFU/100mL		128	38.0 - 381	Not Reported				120	57.1	
2540	Fecal Streptococci (MPN)	MPN/100mL	109	164	44.2 - 907	Acceptable	SM 9230 D Enterolert®	8/5/2015	-0.634	200	144	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)

2520	Enterococci (MF)	CFU/100mL		128	49.0 - 212	Not Reported				102	27.3	
2520	Enterococci (MPN)	MPN/100mL	330	164	37.0 - 334	Acceptable	SM 9230 B-2007 2007	8/4/2015	4.43	111	49.4	
2540	Fecal Streptococci (MF)	CFU/100mL		128	38.0 - 381	Not Reported				120	57.1	
2540	Fecal Streptococci (MPN)	MPN/100mL	330	164	44.2 - 907	Acceptable	SM 9230 B-2007 2007	8/4/2015	0.903	200	144	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)

2520	Enterococci (MF)	CFU/100mL		128	49.0 - 212	Not Reported				102	27.3	
2520	Enterococci (MPN)	MPN/100mL	330	164	37.0 - 334	Acceptable	SM9230B MPN	8/4/2015	4.43	111	49.4	
2540	Fecal Streptococci (MF)	CFU/100mL		128	38.0 - 381	Not Reported				120	57.1	
2540	Fecal Streptococci (MPN)	MPN/100mL	330	164	44.2 - 907	Acceptable	SM9230B MPN	8/4/2015	0.903	200	144	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2009 TNI Evaluation Report

Study: **WP-246**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	31.2	33.4	7.60 - 58.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.117	32.0	7.19	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4340	Acrylonitrile	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4375	Benzene	µg/L	39.7	41.3	28.9 - 53.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.395	41.5	4.52	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4395	Bromodichloromethane	µg/L	43.0	36.4	21.8 - 51.0	Acceptable	EPA 624 Appendix A 1982	8/4/2015	1.69	37.0	3.57	
4400	Bromoform	µg/L	28.8	26.0	15.6 - 36.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	1.17	24.5	3.67	
4950	Bromomethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	52.6	55.6	37.1 - 76.0	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.590	56.7	7.02	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4455	Carbon tetrachloride	µg/L	23.0	24.0	12.9 - 33.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.114	22.6	3.43	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4575	Chlorodibromomethane	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4485	Chloroethane	µg/L	20.4	21.8	8.72 - 34.9	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.388	22.0	4.08	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/24/2015				
4505	Chloroform	µg/L	22.0	24.1	16.9 - 31.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.735	24.0	2.78	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		52.4	31.4 - 73.4	Not Reported				50.0	8.46	
4585	1,2-Dibromoethane (EDB)	µg/L		13.1	8.52 - 17.7	Not Reported				12.7	1.60	
4595	Dibromomethane	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4610	1,2-Dichlorobenzene	µg/L	34.0	37.9	26.5 - 49.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-1.01	37.7	3.70	
4615	1,3-Dichlorobenzene	µg/L	23.4	25.6	17.9 - 33.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.661	25.0	2.43	
4620	1,4-Dichlorobenzene	µg/L	17.8	20.1	14.1 - 26.1	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.929	19.6	1.96	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4630	1,1-Dichloroethane	µg/L	36.6	39.1	24.8 - 53.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.597	39.2	4.29	
4635	1,2-Dichloroethane	µg/L	38.2	41.3	29.3 - 54.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.650	41.6	5.15	
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4645	cis-1,2-Dichloroethylene	µg/L	18.8	21.1	14.5 - 28.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.930	20.9	2.25	
4700	trans-1,2-Dichloroethylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4655	1,2-Dichloropropane	µg/L	37.6	37.1	26.0 - 48.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.186	38.3	3.89	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4685	trans-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4765	Ethylbenzene	µg/L	50.8	51.7	36.2 - 67.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.0398	51.0	5.92	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	32.3	39.0	23.4 - 54.6	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-1.19	38.1	4.89	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	32.2	32.6	9.96 - 53.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.111	31.5	6.16	
5005	Naphthalene	µg/L		< 6.30	0.00 - 6.30	Not Reported						
5015	Nitrobenzene	µg/L		28.3	8.95 - 35.3	Not Reported				32.5	5.23	
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	25.8	25.4	16.5 - 34.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.190	25.3	2.76	
5105	1,1,1,2-Tetrachloroethane	µg/L	43.1	40.8	26.5 - 55.1	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.445	41.1	4.52	
5110	1,1,2,2-Tetrachloroethane	µg/L	55.3	54.4	35.4 - 73.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.122	54.3	8.07	
5115	Tetrachloroethylene	µg/L	< 0.50	< 4.30	0.00 - 4.30	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5140	Toluene	µg/L	39.5	42.6	29.8 - 55.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.639	42.0	3.93	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5165	1,1,2-Trichloroethane	µg/L	17.8	19.2	13.4 - 25.0	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.527	18.9	2.09	
5170	Trichloroethylene	µg/L	26.2	28.2	17.8 - 37.5	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.639	28.3	3.24	
5175	Trichlorofluoromethane	µg/L	20.9	22.6	9.04 - 36.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.204	21.8	4.21	
5180	1,2,3-Trichloropropane (TCP)	µg/L	41.9	42.6	17.8 - 65.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.0231	42.1	7.61	
5210	1,2,4-Trimethylbenzene	µg/L		24.4	15.9 - 32.9	Not Reported				23.0	3.14	
5215	1,3,5-Trimethylbenzene	µg/L		< 6.50	0.00 - 6.50	Not Reported						
5225	Vinyl acetate	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5240	m&p-Xylene	µg/L	74.2	71.5	42.9 - 100	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.306	71.8	7.94	
5250	o-Xylene	µg/L	29.5	29.6	17.8 - 41.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.0756	29.8	3.34	
5260	Xylenes, total	µg/L	104	101	60.6 - 141	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.254	101	11.4	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	31.7	33.4	7.60 - 58.7	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.0476	32.0	7.19	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4340	Acrylonitrile	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4375	Benzene	µg/L	42.4	41.3	28.9 - 53.7	Acceptable	EPA 8260B 2 1996	8/4/2015	0.203	41.5	4.52	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4395	Bromodichloromethane	µg/L	40.8	36.4	21.8 - 51.0	Acceptable	EPA 8260B 2 1996	8/4/2015	1.07	37.0	3.57	
4400	Bromoform	µg/L	25.1	26.0	15.6 - 36.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.158	24.5	3.67	
4950	Bromomethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	56.0	55.6	37.1 - 76.0	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.106	56.7	7.02	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4455	Carbon tetrachloride	µg/L	22.9	24.0	12.9 - 33.2	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0851	22.6	3.43	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4575	Chlorodibromomethane	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4485	Chloroethane	µg/L	20.8	21.8	8.72 - 34.9	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.290	22.0	4.08	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/24/2015				
4505	Chloroform	µg/L	24.2	24.1	16.9 - 31.3	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0553	24.0	2.78	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		52.4	31.4 - 73.4	Not Reported				50.0	8.46	
4585	1,2-Dibromoethane (EDB)	µg/L		13.1	8.52 - 17.7	Not Reported				12.7	1.60	
4595	Dibromomethane	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	8/4/2015				
4610	1,2-Dichlorobenzene	µg/L	39.0	37.9	26.5 - 49.3	Acceptable	EPA 8260B 2 1996	8/4/2015	0.341	37.7	3.70	
4615	1,3-Dichlorobenzene	µg/L	23.4	25.6	17.9 - 33.3	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.661	25.0	2.43	
4620	1,4-Dichlorobenzene	µg/L	20.8	20.1	14.1 - 26.1	Acceptable	EPA 8260B 2 1996	8/4/2015	0.600	19.6	1.96	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4630	1,1-Dichloroethane	µg/L	37.6	39.1	24.8 - 53.7	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.364	39.2	4.29	
4635	1,2-Dichloroethane	µg/L	40.4	41.3	29.3 - 54.7	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.223	41.6	5.15	
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 8260B 2 1996	8/4/2015				
4645	cis-1,2-Dichloroethylene	µg/L	21.0	21.1	14.5 - 28.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0492	20.9	2.25	
4700	trans-1,2-Dichloroethylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4655	1,2-Dichloropropane	µg/L	38.6	37.1	26.0 - 48.2	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0707	38.3	3.89	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	8/4/2015				
4685	trans-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	8/4/2015				
4765	Ethylbenzene	µg/L	47.3	51.7	36.2 - 67.2	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.631	51.0	5.92	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 8260B 2 1996	8/4/2015				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	34.4	39.0	23.4 - 54.6	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.760	38.1	4.89	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	30.7	32.6	9.96 - 53.3	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.133	31.5	6.16	
5005	Naphthalene	µg/L		< 6.30	0.00 - 6.30	Not Reported						
5015	Nitrobenzene	µg/L		28.3	8.95 - 35.3	Not Reported				32.5	5.23	
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	25.6	25.4	16.5 - 34.3	Acceptable	EPA 8260B 2 1996	8/4/2015	0.117	25.3	2.76	
5105	1,1,1,2-Tetrachloroethane	µg/L	43.1	40.8	26.5 - 55.1	Acceptable	EPA 8260B 2 1996	8/4/2015	0.445	41.1	4.52	
5110	1,1,2,2-Tetrachloroethane	µg/L	55.2	54.4	35.4 - 73.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.110	54.3	8.07	
5115	Tetrachloroethylene	µg/L	< 0.50	< 4.30	0.00 - 4.30	Acceptable	EPA 8260B 2 1996	8/4/2015				
5140	Toluene	µg/L	45.0	42.6	29.8 - 55.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.760	42.0	3.93	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
5165	1,1,2-Trichloroethane	µg/L	17.7	19.2	13.4 - 25.0	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.575	18.9	2.09	
5170	Trichloroethylene	µg/L	28.6	28.2	17.8 - 37.5	Acceptable	EPA 8260B 2 1996	8/4/2015	0.103	28.3	3.24	
5175	Trichlorofluoromethane	µg/L	21.3	22.6	9.04 - 36.2	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.109	21.8	4.21	
5180	1,2,3-Trichloropropane (TCP)	µg/L	41.9	42.6	17.8 - 65.3	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.0231	42.1	7.61	
5210	1,2,4-Trimethylbenzene	µg/L		24.4	15.9 - 32.9	Not Reported				23.0	3.14	
5215	1,3,5-Trimethylbenzene	µg/L		< 6.50	0.00 - 6.50	Not Reported						
5225	Vinyl acetate	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
5240	m&p-Xylene	µg/L	67.5	71.5	42.9 - 100	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.538	71.8	7.94	
5250	o-Xylene	µg/L	29.1	29.6	17.8 - 41.4	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.195	29.8	3.34	
5260	Xylenes, total	µg/L	96.6	101	60.6 - 141	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.396	101	11.4	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	16.0	25.0	9.17 - 31.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.672	18.8	4.19	
5505	Acenaphthylene	µg/L	18.8	29.3	9.84 - 36.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.692	22.4	5.16	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5555	Anthracene	µg/L	< 5.0	< 3.90	0.00 - 3.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5575	Benzo(a)anthracene	µg/L	32.4	41.5	19.1 - 51.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.691	36.9	6.51	
5585	Benzo(b)fluoranthene	µg/L	15.5	21.2	7.96 - 27.7	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.560	17.1	2.79	
5600	Benzo(k)fluoranthene	µg/L	19.0	26.1	5.50 - 41.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.809	22.5	4.27	
5590	Benzo(g,h,i)perylene	µg/L	16.1	20.4	8.84 - 28.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.584	18.0	3.17	
5580	Benzo(a)pyrene	µg/L	< 5.0	< 2.40	0.00 - 2.40	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5630	Benzyl alcohol	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5660	4-Bromophenyl-phenylether	µg/L	< 5.0	< 8.60	0.00 - 8.60	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5670	Butylbenzylphthalate	µg/L	97.5	142	42.6 - 194	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.602	115	29.0	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	54.3	82.9	29.3 - 98.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.832	64.9	12.8	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5780	bis(2-Chloroisopropyl)ether	µg/L	26.9	47.4	8.99 - 63.5	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.983	34.7	7.91	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	27.6	49.1	14.1 - 60.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.673	33.5	8.70	
5825	4-Chlorophenyl-phenylether	µg/L	< 5.0	< 9.90	0.00 - 9.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5855	Chrysene	µg/L	23.0	29.0	13.7 - 38.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.653	26.0	4.64	
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5905	Dibenzofuran	µg/L	< 5.0	< 11.3	0.00 - 11.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5925	Di-n-butylphthalate	µg/L	44.0	63.8	23.7 - 86.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.934	54.6	11.4	
4610	1,2-Dichlorobenzene	µg/L	41.1	78.1	8.31 - 92.7	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.189	44.3	17.1	
4615	1,3-Dichlorobenzene	µg/L	< 3.10	< 3.10	0.00 - 3.10	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
4620	1,4-Dichlorobenzene	µg/L	28.8	57.6	6.48 - 66.1	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.221	31.6	12.7	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6070	Diethylphthalate	µg/L	49.5	77.0	13.3 - 109	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.789	59.2	12.3	
6135	Dimethylphthalate	µg/L	94.0	139	13.9 - 200	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.494	107	25.7	
6185	2,4-Dinitrotoluene	µg/L	< 5.0	< 4.50	0.00 - 4.50	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6190	2,6-Dinitrotoluene	µg/L	54.9	92.4	37.5 - 111	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.34	75.0	15.0	
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6065	bis(2-Ethylhexyl)phthalate	µg/L	44.7	66.2	21.9 - 90.1	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.14	57.3	11.1	
6265	Fluoranthene	µg/L	48.4	64.1	30.2 - 79.5	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.490	53.1	9.53	
6270	Fluorene	µg/L	24.4	34.7	15.0 - 45.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.793	28.4	5.06	
6275	Hexachlorobenzene	µg/L	41.6	65.9	29.4 - 79.1	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.06	52.2	10.1	
4835	Hexachlorobutadiene	µg/L	65.8	144	17.6 - 169	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.300	76.5	35.6	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
4840	Hexachloroethane	µg/L	54.6	115	11.5 - 126	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.190	60.1	29.0	
6315	Indeno(1,2,3-cd)pyrene	µg/L	< 10.0	< 9.20	0.00 - 9.20	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6320	Isophorone	µg/L	42.6	80.9	29.5 - 101	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.10	56.3	12.5	
6385	2-Methylnaphthalene	µg/L	23.5	34.6	5.69 - 46.8	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.317	25.6	6.76	
5005	Naphthalene	µg/L	39.6	64.8	15.4 - 79.2	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.348	43.7	11.7	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5015	Nitrobenzene	µg/L	40.4	70.5	22.9 - 84.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.13	52.1	10.3	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	61.8	97.6	9.76 - 113	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.804	47.9	17.3	
6535	N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.60	0.00 - 5.60	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	59.2	102	33.1 - 128	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.14	76.1	14.8	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	57.9	83.6	39.1 - 100	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.623	65.8	12.6	
6665	Pyrene	µg/L	< 5.0	< 4.90	0.00 - 4.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	74.9	141	28.0 - 165	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.279	82.7	27.8	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	16.0	25.0	9.17 - 31.3	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.672	18.8	4.19	
5505	Acenaphthylene	µg/L	18.8	29.3	9.84 - 36.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.692	22.4	5.16	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5555	Anthracene	µg/L	< 5.0	< 3.90	0.00 - 3.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 8270C 3 1996	8/12/2015				
5575	Benzo(a)anthracene	µg/L	32.4	41.5	19.1 - 51.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.691	36.9	6.51	
5585	Benzo(b)fluoranthene	µg/L	15.5	21.2	7.96 - 27.7	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.560	17.1	2.79	
5600	Benzo(k)fluoranthene	µg/L	19.0	26.1	5.50 - 41.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.809	22.5	4.27	
5590	Benzo(g,h,i)perylene	µg/L	16.1	20.4	8.84 - 28.0	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.584	18.0	3.17	
5580	Benzo(a)pyrene	µg/L	< 5.0	< 2.40	0.00 - 2.40	Acceptable	EPA 8270C 3 1996	8/12/2015				
5630	Benzyl alcohol	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5660	4-Bromophenyl-phenylether	µg/L	< 5.0	< 8.60	0.00 - 8.60	Acceptable	EPA 8270C 3 1996	8/12/2015				
5670	Butylbenzylphthalate	µg/L	97.5	142	42.6 - 194	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.602	115	29.0	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	54.3	82.9	29.3 - 98.0	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.832	64.9	12.8	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5780	bis(2-Chloroisopropyl)ether	µg/L	26.9	47.4	8.99 - 63.5	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.983	34.7	7.91	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	27.6	49.1	14.1 - 60.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.673	33.5	8.70	
5825	4-Chlorophenyl-phenylether	µg/L	< 5.0	< 9.90	0.00 - 9.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5855	Chrysene	µg/L	23.0	29.0	13.7 - 38.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.653	26.0	4.64	
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5905	Dibenzofuran	µg/L	< 5.0	< 11.3	0.00 - 11.3	Acceptable	EPA 8270C 3 1996	8/12/2015				
5925	Di-n-butylphthalate	µg/L	44.0	63.8	23.7 - 86.0	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.934	54.6	11.4	
4610	1,2-Dichlorobenzene	µg/L	41.1	78.1	8.31 - 92.7	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.189	44.3	17.1	
4615	1,3-Dichlorobenzene	µg/L	< 3.10	< 3.10	0.00 - 3.10	Acceptable	EPA 8270C 3 1996	8/12/2015				
4620	1,4-Dichlorobenzene	µg/L	28.8	57.6	6.48 - 66.1	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.221	31.6	12.7	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	8/12/2015				
6070	Diethylphthalate	µg/L	49.5	77.0	13.3 - 109	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.789	59.2	12.3	
6135	Dimethylphthalate	µg/L	94.0	139	13.9 - 200	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.494	107	25.7	
6185	2,4-Dinitrotoluene	µg/L	< 5.0	< 4.50	0.00 - 4.50	Acceptable	EPA 8270C 3 1996	8/12/2015				
6190	2,6-Dinitrotoluene	µg/L	54.9	92.4	37.5 - 111	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.34	75.0	15.0	
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 8270C 3 1996	8/12/2015				
6065	bis(2-Ethylhexyl)phthalate	µg/L	44.7	66.2	21.9 - 90.1	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.14	57.3	11.1	
6265	Fluoranthene	µg/L	48.4	64.1	30.2 - 79.5	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.490	53.1	9.53	
6270	Fluorene	µg/L	24.4	34.7	15.0 - 45.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.793	28.4	5.06	
6275	Hexachlorobenzene	µg/L	41.6	65.9	29.4 - 79.1	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.06	52.2	10.1	
4835	Hexachlorobutadiene	µg/L	65.8	144	17.6 - 169	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.300	76.5	35.6	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	8/12/2015				
4840	Hexachloroethane	µg/L	54.6	115	11.5 - 126	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.190	60.1	29.0	
6315	Indeno(1,2,3-cd)pyrene	µg/L	< 10.0	< 9.20	0.00 - 9.20	Acceptable	EPA 8270C 3 1996	8/12/2015				
6320	Isophorone	µg/L	42.6	80.9	29.5 - 101	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.10	56.3	12.5	
6385	2-Methylnaphthalene	µg/L	23.5	34.6	5.69 - 46.8	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.317	25.6	6.76	
5005	Naphthalene	µg/L	39.6	64.8	15.4 - 79.2	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.348	43.7	11.7	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5015	Nitrobenzene	µg/L	40.4	70.5	22.9 - 84.3	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.13	52.1	10.3	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	61.8	97.6	9.76 - 113	Acceptable	EPA 8270C 3 1996	8/12/2015	0.804	47.9	17.3	
6535	N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.60	0.00 - 5.60	Acceptable	EPA 8270C 3 1996	8/12/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	59.2	102	33.1 - 128	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.14	76.1	14.8	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	57.9	83.6	39.1 - 100	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.623	65.8	12.6	
6665	Pyrene	µg/L	< 5.0	< 4.90	0.00 - 4.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	74.9	141	28.0 - 165	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.279	82.7	27.8	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5700	4-Chloro-3-methylphenol	µg/L	32.3	40.7	15.7 - 50.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.243	33.8	6.04	
5800	2-Chlorophenol	µg/L	53.8	74.2	21.7 - 89.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.0472	54.4	12.7	
6000	2,4-Dichlorophenol	µg/L	24.4	33.9	13.1 - 42.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.351	26.0	4.57	
6005	2,6-Dichlorophenol	µg/L		66.2	22.3 - 84.6	Not Reported				52.2	9.41	
6130	2,4-Dimethylphenol	µg/L	43.4	54.4	15.8 - 68.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.248	41.3	8.33	
6360	4,6-Dinitro-2-methylphenol	µg/L	28.2	45.3	12.5 - 68.2	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.665	32.6	6.68	
6175	2,4-Dinitrophenol	µg/L	40.0	124	12.4 - 173	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-2.28	92.7	23.1	
6400	2-Methylphenol	µg/L	41.6	57.9	13.5 - 69.9	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.257	39.1	9.88	
6410	4-Methylphenol	µg/L	57.9	83.6	8.36 - 109	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.383	53.1	12.5	
6490	2-Nitrophenol	µg/L	65.6	90.2	28.2 - 112	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.326	69.6	12.4	
6500	4-Nitrophenol	µg/L	81.9	116	11.6 - 157	Acceptable	EPA 625 Appendix A 1982	8/12/2015	1.29	51.2	23.7	
6605	Pentachlorophenol	µg/L	36.9	50.0	13.6 - 69.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.316	39.4	7.78	
6625	Phenol	µg/L	72.0	115	11.5 - 155	Acceptable	EPA 625 Appendix A 1982	8/12/2015	1.06	46.6	24.0	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	39.7	50.0	18.4 - 65.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.307	42.4	8.80	
6840	2,4,6-Trichlorophenol	µg/L	41.8	60.1	22.7 - 73.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.525	46.3	8.52	

WP-246 2009 TNI Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5700	4-Chloro-3-methylphenol	µg/L	32.3	40.7	15.7 - 50.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.243	33.8	6.04	
5800	2-Chlorophenol	µg/L	53.8	74.2	21.7 - 89.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.0472	54.4	12.7	
6000	2,4-Dichlorophenol	µg/L	24.4	33.9	13.1 - 42.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.351	26.0	4.57	
6005	2,6-Dichlorophenol	µg/L		66.2	22.3 - 84.6	Not Reported				52.2	9.41	
6130	2,4-Dimethylphenol	µg/L	43.4	54.4	15.8 - 68.6	Acceptable	EPA 8270C 3 1996	8/12/2015	0.248	41.3	8.33	
6360	4,6-Dinitro-2-methylphenol	µg/L	28.2	45.3	12.5 - 68.2	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.665	32.6	6.68	
6175	2,4-Dinitrophenol	µg/L	40.0	124	12.4 - 173	Acceptable	EPA 8270C 3 1996	8/12/2015	-2.28	92.7	23.1	
6400	2-Methylphenol	µg/L	41.6	57.9	13.5 - 69.9	Acceptable	EPA 8270C 3 1996	8/12/2015	0.257	39.1	9.88	
6410	4-Methylphenol	µg/L	57.9	83.6	8.36 - 109	Acceptable	EPA 8270C 3 1996	8/12/2015	0.383	53.1	12.5	
6490	2-Nitrophenol	µg/L	65.6	90.2	28.2 - 112	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.326	69.6	12.4	
6500	4-Nitrophenol	µg/L	81.9	116	11.6 - 157	Acceptable	EPA 8270C 3 1996	8/12/2015	1.29	51.2	23.7	
6605	Pentachlorophenol	µg/L	36.9	50.0	13.6 - 69.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.316	39.4	7.78	
6625	Phenol	µg/L	72.0	115	11.5 - 155	Acceptable	EPA 8270C 3 1996	8/12/2015	1.06	46.6	24.0	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	39.7	50.0	18.4 - 65.3	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.307	42.4	8.80	
6840	2,4,6-Trichlorophenol	µg/L	41.8	60.1	22.7 - 73.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.525	46.3	8.52	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	340	396	230 - 540	Acceptable	SM5320B 20th ED 1997	8/6/2015	-1.15	382	36.6	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	340	396	230 - 540	Acceptable	SM 5320 B-2010 2010	8/6/2015	-1.15	382	36.6	

WP-246 2009 TNI Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	340	396	230 - 540	Acceptable	EPA 9020B 2 1994	8/6/2015	-1.15	382	36.6	

ERA
A Waters Company

Final Report Results For Laboratory
Eurofins Eaton Analytical, Inc - Monrovia

ERA
A Waters Company

2003 NELAC Evaluation Report

Study: **WP-246**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Inorganic Results

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM 2320 B-1997 1997	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L	45.4	44.5	38.4 - 50.7	Acceptable	EPA 300.0 2.1 1993	7/28/2015	0.909	43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM 2510 B-1997 1997	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	SM 4500-F C-1997 1997	7/27/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L	21.5	21.2	17.0 - 25.4	Acceptable	EPA 200.7 4.4 1994	8/6/2015	0.941	20.5	1.03	
1155	Sodium	mg/L	75.0	74.9	59.9 - 89.9	Acceptable	EPA 200.7 4.4 1994	8/6/2015	0.529	72.9	4.04	
2000	Sulfate	mg/L	18.6	18.4	14.4 - 21.6	Acceptable	EPA 300.0 2.1 1993	7/28/2015	0.933	17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM 2540 C-1997 1997	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM 2540 B-1997 1997	8/4/2015	0.215	340	17.7	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM 2320 B-2011 2011	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L	45.4	44.5	38.4 - 50.7	Acceptable	EPA 9056 1994	7/28/2015	0.909	43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM 2510 B-2011 2011	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	SM4500F- C 20th ED 1997	7/27/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L	21.5	21.2	17.0 - 25.4	Acceptable	EPA 6010B 2 1996	8/6/2015	0.941	20.5	1.03	
1155	Sodium	mg/L	75.0	74.9	59.9 - 89.9	Acceptable	EPA 6010B 2 1996	8/6/2015	0.529	72.9	4.04	
2000	Sulfate	mg/L	18.6	18.4	14.4 - 21.6	Acceptable	EPA 9056 1994	7/28/2015	0.933	17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM 2540 C-2011 2011	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM 2510 B-2011 2011	8/4/2015	0.215	340	17.7	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM2320B 22nd ED 2011	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM2510B 22nd ED 2011	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	SM4500F- C 22nd ED 2011	7/27/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM2540C 22nd ED 2011	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM2540B 22nd ED 2011	8/4/2015	0.215	340	17.7	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L	94.9	99.2	84.3 - 114	Acceptable	SM2320B 20th ED 1997	7/27/2015	-1.12	98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	SM2510B 20th ED 1997	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.96	3.03	2.44 - 3.50	Acceptable	EPA 300.0 2.1 1993	8/12/2015	0.149	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L	300	337	292 - 382	Acceptable	SM2540C 20th ED 1997	7/28/2015	-1.58	326	16.4	
1950	Total Solids at 105°C	mg/L	344	351	306 - 396	Acceptable	SM2540B 20th ED 1997	8/4/2015	0.215	340	17.7	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		99.2	84.3 - 114	Not Reported				98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	EPA 120.1 1982	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.96	3.03	2.44 - 3.50	Acceptable	EPA 9056 1994	8/12/2015	0.149	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L		337	292 - 382	Not Reported				326	16.4	
1950	Total Solids at 105°C	mg/L		351	306 - 396	Not Reported				340	17.7	
WP Minerals (cat# 581)												
1505	Alkalinity as CaCO3	mg/L		99.2	84.3 - 114	Not Reported				98.8	3.44	
1575	Chloride	mg/L		44.5	38.4 - 50.7	Not Reported				43.5	2.08	
1610	Conductivity at 25°C	µmhos/cm	374	374	337 - 411	Acceptable	EPA 9050A 1 1996	7/27/2015	-0.627	381	10.9	
1730	Fluoride	mg/L	2.92	3.03	2.44 - 3.50	Acceptable	EPA 9214 1996	8/12/2015	-0.124	2.94	0.147	
1125	Potassium	mg/L		21.2	17.0 - 25.4	Not Reported				20.5	1.03	
1155	Sodium	mg/L		74.9	59.9 - 89.9	Not Reported				72.9	4.04	
2000	Sulfate	mg/L		18.4	14.4 - 21.6	Not Reported				17.5	1.14	
1955	Total Dissolved Solids at 180°C	mg/L		337	292 - 382	Not Reported				326	16.4	
1950	Total Solids at 105°C	mg/L		351	306 - 396	Not Reported				340	17.7	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM 2540 D-1997 1997	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L	26.0	24.0	20.4 - 27.6	Acceptable	EPA 200.7 4.4 1994	8/6/2015	1.66	23.8	1.29	
1085	Magnesium	mg/L	38.5	33.8	28.7 - 38.9	Acceptable	EPA 200.7 4.4 1994	8/6/2015	2.66	33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	EPA 200.7 4.4 1994	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	EPA 200.7 4.4 1994	8/7/2015	3.07	195	9.00	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM 2540 D-2011 2011	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L	26.0	24.0	20.4 - 27.6	Acceptable	EPA 6010B 2 1996	8/6/2015	1.66	23.8	1.29	
1085	Magnesium	mg/L	38.5	33.8	28.7 - 38.9	Acceptable	EPA 6010B 2 1996	8/6/2015	2.66	33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	SM 2340 B-1997 1997	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	SM 2340 B-1997 1997	8/7/2015	3.07	195	9.00	
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM2540D 20th ED 1997	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L		24.0	20.4 - 27.6	Not Reported				23.8	1.29	
1085	Magnesium	mg/L		33.8	28.7 - 38.9	Not Reported				33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	SM2340B 20th ED 1997	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	SM2340B 20th ED 1997	8/7/2015	3.07	195	9.00	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hardness (cat# 580)												
1960	Total Suspended Solids	mg/L	31.0	32.6	23.4 - 38.8	Acceptable	SM2540D 22nd ED 2011	7/20/2015	0.355	29.9	3.11	
1035	Calcium	mg/L		24.0	20.4 - 27.6	Not Reported				23.8	1.29	
1085	Magnesium	mg/L		33.8	28.7 - 38.9	Not Reported				33.4	1.90	
1550	Calcium Hardness as CaCO3	mg/L	64.9	59.9	50.9 - 68.9	Acceptable	SM2340B 22nd ED 2011	8/7/2015	1.65	59.9	3.01	
1755	Total Hardness as CaCO3	mg/L	223	199	169 - 229	Acceptable	SM2340B 22nd ED 2011	8/7/2015	3.07	195	9.00	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	SM4500H+ B 20th ED 1996	7/27/2015	-0.856	6.11	0.0488	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	SM 4500-H+ B-2000 2000	7/27/2015	-0.856	6.11	0.0488	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	SM4500H+ B 22nd ED 2011	7/27/2015	-0.856	6.11	0.0488	
WP pH (cat# 577)												
1900	pH	S.U.	6.07	6.12	5.92 - 6.32	Acceptable	EPA 9040B 2 1995	7/27/2015	-0.856	6.11	0.0488	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	27.0	26.0	21.1 - 33.1	Acceptable	SM2540F 20th ED 1997	8/5/2015	-0.431	27.8	1.97	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	27.0	26.0	21.1 - 33.1	Acceptable	SM 2540 F-1997 1997	8/5/2015	-0.431	27.8	1.97	
WP Settleable Solids (cat# 883)												
1965	Settleable Solids	mL/L	27.0	26.0	21.1 - 33.1	Acceptable	SM2540F 22nd ED 2011	8/5/2015	-0.431	27.8	1.97	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	SM2540E 20th ED	7/23/2015	-2.06	142	17.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	SM 2540 E-1997 1997	7/23/2015	-2.06	142	17.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	EPA 160.4 1979	7/23/2015	-2.06	142	17.5	
WP Volatile Solids (cat# 884)												
1970	Volatile Solids, Total	mg/L	106	150	86.9 - 193	Acceptable	SM2540E 22nd ED 2011	7/23/2015	-2.06	142	17.5	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	EPA 350.1 2 1993	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L	9.45	9.49	7.88 - 11.0	Acceptable	EPA 353.2 2 1993	7/30/2015	-0.0939	9.49	0.453	
1810	Nitrate as N	mg/L	9.45	9.49	7.83 - 11.1	Acceptable	EPA 353.2 2 1993	7/30/2015	-0.101	9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	EPA 365.1 2 1993	7/17/2015	1.55	2.38	0.133	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	SM4500NH3 H 20th ED 1997	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L	9.29	9.49	7.88 - 11.0	Acceptable	EPA 300.0 2.1 1993	8/6/2015	-0.447	9.49	0.453	
1810	Nitrate as N	mg/L	9.29	9.49	7.83 - 11.1	Acceptable	EPA 300.0 2.1 1993	8/6/2015	-0.437	9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	SM4500P E 20th ED 1997	7/17/2015	1.55	2.38	0.133	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	SM4500NH3 H 22nd ED 2011	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L	9.29	9.49	7.88 - 11.0	Acceptable	EPA 9056 1994	8/6/2015	-0.447	9.49	0.453	
1810	Nitrate as N	mg/L	9.29	9.49	7.83 - 11.1	Acceptable	EPA 9056 1994	8/6/2015	-0.437	9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	SM4500P E 22nd ED 2011	7/17/2015	1.55	2.38	0.133	
WP Simple Nutrients (cat# 584)												
1515	Ammonia as N	mg/L	6.98	6.72	5.28 - 8.17	Acceptable	SM 4500-NH3 H-1997 1997	7/27/2015	0.544	6.68	0.550	
1820	Nitrate + Nitrite as N	mg/L		9.49	7.88 - 11.0	Not Reported				9.49	0.453	
1810	Nitrate as N	mg/L		9.49	7.83 - 11.1	Not Reported				9.50	0.476	
1870	ortho-Phosphate as P	mg/L	2.59	2.39	2.03 - 2.75	Acceptable	SM 4500-P E-1999 1999	7/17/2015	1.55	2.38	0.133	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L	19.0	19.7	14.7 - 23.9	Acceptable	EPA 351.2 2 1993	7/30/2015	-0.430	19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	EPA 365.1 2 1993	7/30/2015	0.991	6.45	0.350	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		19.7	14.7 - 23.9	Not Reported				19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	SM4500P E 20th ED 1997	7/30/2015	0.991	6.45	0.350	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		19.7	14.7 - 23.9	Not Reported				19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	SM4500P E 22nd ED 2011	7/30/2015	0.991	6.45	0.350	
WP Complex Nutrients (cat# 579)												
1795	Total Kjeldahl Nitrogen	mg/L		19.7	14.7 - 23.9	Not Reported				19.5	1.23	
1910	Total phosphorus as P	mg/L	6.80	6.39	5.31 - 7.40	Acceptable	SM 4500-P E-1999 1999	7/30/2015	0.991	6.45	0.350	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.38	1.32	1.09 - 1.54	Acceptable	EPA 300.0 2.1 1993	7/30/2015	0.707	1.32	0.0812	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.43	1.32	1.09 - 1.54	Acceptable	EPA 300.1 1 2000	7/30/2015	1.32	1.32	0.0812	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.33	1.32	1.09 - 1.54	Acceptable	EPA 353.2 2 1993	7/29/2015	0.0914	1.32	0.0812	
WP Nitrite (cat# 888)												
1840	Nitrite as N	mg/L	1.38	1.32	1.09 - 1.54	Acceptable	EPA 9056 1994	7/30/2015	0.707	1.32	0.0812	
WP Demand (cat# 578)												
1530	BOD	mg/L	19.5	31.8	15.9 - 47.6	Acceptable	SM5210B 22nd ED 2011	7/17/2015	-2.26	31.8	5.43	
1555	CBOD	mg/L	23.8	28.8	11.9 - 45.7	Acceptable	SM5210B 22nd ED 2011	7/17/2015	-0.963	29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	SM5220D 22nd ED 2011	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L	21.0	20.1	16.2 - 24.0	Acceptable	SM5310C 22nd ED 2011	7/18/2015	0.329	20.5	1.37	
WP Demand (cat# 578)												
1530	BOD	mg/L	19.5	31.8	15.9 - 47.6	Acceptable	SM5210B 21st ED 2001	7/17/2015	-2.26	31.8	5.43	
1555	CBOD	mg/L	23.8	28.8	11.9 - 45.7	Acceptable	SM5210B 21st ED 2001	7/17/2015	-0.963	29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	SM5220D 21st ED 1997	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L	21.0	20.1	16.2 - 24.0	Acceptable	SM5310C 21st ED 2000	7/18/2015	0.329	20.5	1.37	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Demand (cat# 578)												
1530	BOD	mg/L	19.5	31.8	15.9 - 47.6	Acceptable	SM 5210 B-2001 2001	7/17/2015	-2.26	31.8	5.43	
1555	CBOD	mg/L	23.8	28.8	11.9 - 45.7	Acceptable	SM 5210 B-2001 2001	7/17/2015	-0.963	29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	SM 5220 D-1997 1997	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L	21.0	20.1	16.2 - 24.0	Acceptable	SM 5310 C-2000 2000	7/18/2015	0.329	20.5	1.37	
WP Demand (cat# 578)												
1530	BOD	mg/L		31.8	15.9 - 47.6	Not Reported				31.8	5.43	
1555	CBOD	mg/L		28.8	11.9 - 45.7	Not Reported				29.7	6.15	
1565	COD	mg/L	48.0	50.9	34.1 - 65.4	Acceptable	EPA 410.4 2 1993	7/17/2015	-0.383	50.2	5.71	
2040	TOC	mg/L		20.1	16.2 - 24.0	Not Reported				20.5	1.37	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1300	1290	1060 - 1490	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.0291	1300	78.1	
1005	Antimony	µg/L	465	484	390 - 563	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.521	478	24.8	
1010	Arsenic	µg/L	863	814	690 - 927	Acceptable	EPA 200.8 5.4 1994	8/5/2015	1.80	799	35.5	
1015	Barium	µg/L	1660	1690	1440 - 1940	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.412	1690	66.7	
1020	Beryllium	µg/L	365	364	309 - 419	Acceptable	EPA 200.8 5.4 1994	8/5/2015	0.0453	364	17.5	
1025	Boron	µg/L		1300	1100 - 1500	Not Reported				1310	87.3	
1030	Cadmium	µg/L	532	519	441 - 597	Acceptable	EPA 200.8 5.4 1994	8/5/2015	0.717	517	21.5	
1040	Chromium	µg/L	529	548	466 - 630	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.955	550	21.9	
1050	Cobalt	µg/L	426	422	359 - 485	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.927	443	18.7	
1055	Copper	µg/L	368	371	315 - 427	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.348	375	18.8	
1070	Iron	µg/L		1870	1590 - 2150	Not Reported				1890	80.2	
1075	Lead	µg/L	1120	1180	1000 - 1360	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-1.19	1190	59.5	
1090	Manganese	µg/L	798	806	685 - 927	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-1.00	834	35.9	
1100	Molybdenum	µg/L	303	306	263 - 346	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.0138	303	13.2	
1105	Nickel	µg/L	1570	1680	1490 - 1880	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-1.28	1660	74.2	
1140	Selenium	µg/L	858	771	655 - 887	Acceptable	EPA 200.8 5.4 1994	8/7/2015	2.50	761	38.6	
1150	Silver	µg/L	508	511	434 - 588	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.182	513	28.4	
1160	Strontium	µg/L		83.9	71.3 - 96.5	Not Reported				91.2	3.65	
1165	Thallium	µg/L	165	168	129 - 203	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.228	167	9.29	
1185	Vanadium	µg/L	482	500	425 - 575	Acceptable	EPA 200.8 5.4 1994	8/5/2015	-0.782	496	18.1	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1580	1430	1220 - 1640	Acceptable	EPA 200.8 5.4 1994	8/7/2015	1.86	1440	76.3	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1300	1290	1060 - 1490	Acceptable	EPA 6020	8/5/2015	-0.0291	1300	78.1	
1005	Antimony	µg/L	465	484	390 - 563	Acceptable	EPA 6020	8/5/2015	-0.521	478	24.8	
1010	Arsenic	µg/L	863	814	690 - 927	Acceptable	EPA 6020	8/5/2015	1.80	799	35.5	
1015	Barium	µg/L	1660	1690	1440 - 1940	Acceptable	EPA 6020	8/5/2015	-0.412	1690	66.7	
1020	Beryllium	µg/L	365	364	309 - 419	Acceptable	EPA 6020	8/5/2015	0.0453	364	17.5	
1025	Boron	µg/L		1300	1100 - 1500	Not Reported				1310	87.3	
1030	Cadmium	µg/L	532	519	441 - 597	Acceptable	EPA 6020	8/5/2015	0.717	517	21.5	
1040	Chromium	µg/L	529	548	466 - 630	Acceptable	EPA 6020	8/5/2015	-0.955	550	21.9	
1050	Cobalt	µg/L	426	422	359 - 485	Acceptable	EPA 6020	8/5/2015	-0.927	443	18.7	
1055	Copper	µg/L	368	371	315 - 427	Acceptable	EPA 6020	8/5/2015	-0.348	375	18.8	
1070	Iron	µg/L		1870	1590 - 2150	Not Reported				1890	80.2	
1075	Lead	µg/L	1120	1180	1000 - 1360	Acceptable	EPA 6020	8/5/2015	-1.19	1190	59.5	
1090	Manganese	µg/L	798	806	685 - 927	Acceptable	EPA 6020	8/5/2015	-1.00	834	35.9	
1100	Molybdenum	µg/L	303	306	263 - 346	Acceptable	EPA 6020	8/5/2015	-0.0138	303	13.2	
1105	Nickel	µg/L	1570	1680	1490 - 1880	Acceptable	EPA 6020	8/5/2015	-1.28	1660	74.2	
1140	Selenium	µg/L	858	771	655 - 887	Acceptable	EPA 6020	8/7/2015	2.50	761	38.6	
1150	Silver	µg/L	508	511	434 - 588	Acceptable	EPA 6020	8/5/2015	-0.182	513	28.4	
1160	Strontium	µg/L		83.9	71.3 - 96.5	Not Reported				91.2	3.65	
1165	Thallium	µg/L	165	168	129 - 203	Acceptable	EPA 6020	8/5/2015	-0.228	167	9.29	
1185	Vanadium	µg/L	482	500	425 - 575	Acceptable	EPA 6020	8/5/2015	-0.782	496	18.1	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1580	1430	1220 - 1640	Acceptable	EPA 6020	8/7/2015	1.86	1440	76.3	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1260	1290	1060 - 1490	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.541	1300	78.1	
1005	Antimony	µg/L	466	484	390 - 563	Acceptable	EPA 200.7 4.4 1994	8/11/2015	-0.481	478	24.8	
1010	Arsenic	µg/L		814	690 - 927	Not Reported				799	35.5	
1015	Barium	µg/L	1670	1690	1440 - 1940	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.262	1690	66.7	
1020	Beryllium	µg/L	363	364	309 - 419	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.0691	364	17.5	
1025	Boron	µg/L	1220	1300	1100 - 1500	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-1.04	1310	87.3	
1030	Cadmium	µg/L	507	519	441 - 597	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.445	517	21.5	
1040	Chromium	µg/L	533	548	466 - 630	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.773	550	21.9	
1050	Cobalt	µg/L	444	422	359 - 485	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.0367	443	18.7	
1055	Copper	µg/L	358	371	315 - 427	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.880	375	18.8	
1070	Iron	µg/L	1880	1870	1590 - 2150	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.160	1890	80.2	
1075	Lead	µg/L	1180	1180	1000 - 1360	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.180	1190	59.5	
1090	Manganese	µg/L	838	806	685 - 927	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.112	834	35.9	
1100	Molybdenum	µg/L	300	306	263 - 346	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.241	303	13.2	
1105	Nickel	µg/L	1700	1680	1490 - 1880	Acceptable	EPA 200.7 4.4 1994	8/10/2015	0.474	1660	74.2	
1140	Selenium	µg/L		771	655 - 887	Not Reported				761	38.6	
1150	Silver	µg/L	498	511	434 - 588	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.534	513	28.4	
1160	Strontium	µg/L	90.8	83.9	71.3 - 96.5	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.120	91.2	3.65	
1165	Thallium	µg/L	155	168	129 - 203	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-1.30	167	9.29	
1185	Vanadium	µg/L	485	500	425 - 575	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.617	496	18.1	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1420	1430	1220 - 1640	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.240	1440	76.3	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586)												
1000	Aluminum	µg/L	1260	1290	1060 - 1490	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.541	1300	78.1	
1005	Antimony	µg/L	466	484	390 - 563	Acceptable	EPA 6010B 2 1996	8/11/2015	-0.481	478	24.8	
1010	Arsenic	µg/L		814	690 - 927	Not Reported				799	35.5	
1015	Barium	µg/L	1670	1690	1440 - 1940	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.262	1690	66.7	
1020	Beryllium	µg/L	363	364	309 - 419	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.0691	364	17.5	
1025	Boron	µg/L	1220	1300	1100 - 1500	Acceptable	EPA 6010B 2 1996	8/10/2015	-1.04	1310	87.3	
1030	Cadmium	µg/L	507	519	441 - 597	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.445	517	21.5	
1040	Chromium	µg/L	533	548	466 - 630	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.773	550	21.9	
1050	Cobalt	µg/L	444	422	359 - 485	Acceptable	EPA 6010B 2 1996	8/10/2015	0.0367	443	18.7	
1055	Copper	µg/L	358	371	315 - 427	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.880	375	18.8	
1070	Iron	µg/L	1880	1870	1590 - 2150	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.160	1890	80.2	
1075	Lead	µg/L	1180	1180	1000 - 1360	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.180	1190	59.5	
1090	Manganese	µg/L	838	806	685 - 927	Acceptable	EPA 6010B 2 1996	8/10/2015	0.112	834	35.9	
1100	Molybdenum	µg/L	300	306	263 - 346	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.241	303	13.2	
1105	Nickel	µg/L	1700	1680	1490 - 1880	Acceptable	EPA 6010B 2 1996	8/10/2015	0.474	1660	74.2	
1140	Selenium	µg/L		771	655 - 887	Not Reported				761	38.6	
1150	Silver	µg/L	498	511	434 - 588	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.534	513	28.4	
1160	Strontium	µg/L	90.8	83.9	71.3 - 96.5	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.120	91.2	3.65	
1165	Thallium	µg/L	155	168	129 - 203	Acceptable	EPA 6010B 2 1996	8/10/2015	-1.30	167	9.29	
1185	Vanadium	µg/L	485	500	425 - 575	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.617	496	18.1	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Trace Metals (cat# 586) (Continued)												
1190	Zinc	µg/L	1420	1430	1220 - 1640	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.240	1440	76.3	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.12	7.84	5.49 - 10.2	Acceptable	EPA 245.1 3 1994	7/31/2015	0.603	7.72	0.668	
WP Mercury (cat# 574)												
1095	Mercury	µg/L	8.12	7.84	5.49 - 10.2	Acceptable	EPA 7470A 1 1994	7/31/2015	0.603	7.72	0.668	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	EPA 218.6 3.3 1994	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	SM3500Cr B 20th ED 1997	7/17/2015	0.705	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	EPA 7199 1996	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	SM 3500-Cr C-2009 2009	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	EPA 7196A 1 1992	7/17/2015	0.705	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	SM3500Cr C 20th ED 1997	7/17/2015	-0.108	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	SM 3500-Cr B-2009 2009	7/17/2015	0.705	702	32.0	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	725	709	596 - 812	Acceptable	SM3500Cr B 22nd ED 2011	7/17/2015	0.705	702	32.0	
WP Hexavalent Chromium (cat# 898)												
1045	Hexavalent Chromium	µg/L	699	709	596 - 812	Acceptable	SM3500Cr C 22nd ED 2011	7/17/2015	-0.108	702	32.0	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	848	892	624 - 1160	Acceptable	EPA 200.7 4.4 1994	7/27/2015	-0.619	878	47.7	
1180	Titanium	µg/L	76.6	78.7	66.9 - 90.5	Acceptable	EPA 200.7 4.4 1994	7/27/2015	-0.406	78.0	3.53	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	858	892	624 - 1160	Acceptable	EPA 200.8 5.4 1994	7/27/2015	-0.410	878	47.7	
1180	Titanium	µg/L	82.2	78.7	66.9 - 90.5	Acceptable	EPA 200.8 5.4 1994	7/27/2015	1.18	78.0	3.53	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	848	892	624 - 1160	Acceptable	EPA 6010B 2 1996	7/27/2015	-0.619	878	47.7	
1180	Titanium	µg/L	76.6	78.7	66.9 - 90.5	Acceptable	EPA 6010B 2 1996	7/27/2015	-0.406	78.0	3.53	
WP Tin & Titanium (cat# 573)												
1175	Tin	µg/L	858	892	624 - 1160	Acceptable	EPA 6020 1994	7/27/2015	-0.410	878	47.7	
1180	Titanium	µg/L	82.2	78.7	66.9 - 90.5	Acceptable	EPA 6020 1994	7/27/2015	1.18	78.0	3.53	
WP Color (cat# 882)												
1605	Color	PC units	25.0	25.0	14.2 - 34.4	Acceptable	SM 2120 B-2001 2001	7/27/2015	0.280	24.0	3.61	
WP Color (cat# 882)												
1605	Color	PC units	25.0	25.0	14.2 - 34.4	Acceptable	SM2120B 22nd ED 2011	7/27/2015	0.280	24.0	3.61	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Color (cat# 882)												
1605	Color	PC units	25.0	25.0	14.2 - 34.4	Acceptable	SM2120B 20th ED 1993	7/27/2015	0.280	24.0	3.61	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	EPA 180.1 2 1993	7/24/2015	-0.296	3.00	0.248	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	SM 2130 B-2001 2001	7/24/2015	-0.296	3.00	0.248	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	SM2130B 22nd ED 2011	7/24/2015	-0.296	3.00	0.248	
WP Turbidity (cat# 893)												
2055	Turbidity	NTU	2.93	2.99	2.07 - 3.86	Acceptable	SM2130B 20th ED 1994	7/24/2015	-0.296	3.00	0.248	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	EPA 335.4 1993	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	SM 4500-CN F-2011 2011	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	SM4500CN F 22nd ED 2011	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	SM4500CN F 20th ED 1997	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.577	0.598	0.389 - 0.807	Acceptable	EPA 9012B 2002	7/28/2015	-0.176	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Total Cyanide (cat# 588)												
1645	Cyanide, total	mg/L	0.542	0.598	0.389 - 0.807	Acceptable	OIA 1677 2004	8/5/2015	-0.748	0.588	0.0612	
1510	Amenable Cyanide	mg/L		0.439	0.285 - 0.593	Not Reported				0.484	0.0911	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	225	219	164 - 274	Acceptable	EPA 200.7 4.4 1994	8/10/2015	1.03	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	225	219	164 - 274	Acceptable	EPA 6010B 2 1996	8/10/2015	1.03	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	213	219	164 - 274	Acceptable	SM4500SiO2 C 20th ED 1997	8/6/2015	0.0359	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	213	219	164 - 274	Acceptable	SM4500SiO2 C 22nd ED 2011	8/6/2015	0.0359	213	12.0	
WP Silica (cat# 890)												
1990	Silica as SiO2	mg/L	213	219	164 - 274	Acceptable	SM 4500-SiO2 C-1997 1997	8/6/2015	0.0359	213	12.0	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	EPA 376.2 1978	7/28/2015	-1.09	5.27	1.14	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	SM 4500-S2 D-2000 2000	7/28/2015	-1.09	5.27	1.14	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	SM4500S2- D 20th ED 1997	7/28/2015	-1.09	5.27	1.14	
WP Sulfide (cat# 891)												
2005	Sulfide	mg/L	4.03	6.46	2.93 - 9.29	Acceptable	SM4500S2- D 22nd ED 2011	7/28/2015	-1.09	5.27	1.14	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.657	0.543	0.329 - 0.789	Acceptable	SM 5540 C-2000 2000	7/22/2015	1.10	0.561	0.0869	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.657	0.543	0.329 - 0.789	Acceptable	SM5540C 20th ED 1993	7/22/2015	1.10	0.561	0.0869	
WP Surfactants - MBAS (cat# 892)												
2025	Surfactants (MBAS)	mg/L	0.657	0.543	0.329 - 0.789	Acceptable	SM5540C 22nd ED 2011	7/22/2015	1.10	0.561	0.0869	
WP Boron (cat# 886)												
1025	Boron	µg/L	1080	1160	986 - 1330	Acceptable	EPA 200.7 4.4 1994	8/10/2015	-0.157	1080	26.0	
WP Boron (cat# 886)												
1025	Boron	µg/L	1080	1160	986 - 1330	Acceptable	EPA 6010B 2 1996	8/10/2015	-0.157	1080	26.0	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	4.63	4.58	3.75 - 5.39	Acceptable	EPA 300.0 2.1 1993	8/14/2015	0.0268	4.62	0.309	
WP Bromide (cat# 887)												
1540	Bromide	mg/L	4.63	4.58	3.75 - 5.39	Acceptable	EPA 9056 1994	8/14/2015	0.0268	4.62	0.309	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Bromide (cat# 887)												
1540	Bromide	mg/L	4.58	4.58	3.75 - 5.39	Acceptable	EPA 300.1 1 2000	8/11/2015	-0.135	4.62	0.309	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	0.900	0.872	0.652 - 1.06	Acceptable	SM 4500-Cl G-2000 2000	7/23/2015	0.920	0.841	0.0638	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	0.900	0.872	0.652 - 1.06	Acceptable	SM4500Cl G 20th ED 1993	7/23/2015	0.920	0.841	0.0638	
WP Total Residual Chlorine (cat# 587)												
1940	Total Residual Chlorine	mg/L	0.900	0.872	0.652 - 1.06	Acceptable	SM4500Cl G 22nd ED 2011	7/23/2015	0.920	0.841	0.0638	

ERA
A Waters Company

2003 NELAC Evaluation Report

Study: **WP-246**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Microbiology Results

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	220	330	51.2 - 985	Acceptable	SM 9221 B-2006 2006	8/4/2015	-0.0295	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL	220	330	26.5 - 1040	Acceptable	SM 9221 E + C-2006 2006	8/4/2015	0.320	166	169	
2525	E.coli (MPN)	MPN/100mL	220	330	71.4 - 743	Acceptable	SM 9221 B.1 + F-2006 2006	8/6/2015	-0.0924	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	220	330	51.2 - 985	Acceptable	SM9221B 22nd ED 2006	8/4/2015	-0.0295	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL	220	330	26.5 - 1040	Acceptable	SM9221C 22nd ED 2006	8/4/2015	0.320	166	169	
2525	E.coli (MPN)	MPN/100mL	220	330	71.4 - 743	Acceptable	SM9221F 22nd ED 2006	8/6/2015	-0.0924	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	140	330	51.2 - 985	Acceptable	SM 9223 B-2004 2004	8/6/2015	-0.543	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	140	330	71.4 - 743	Acceptable	SM 9223 B-2004 2004	8/6/2015	-0.807	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	140	330	51.2 - 985	Acceptable	SM9223 COLILERT 22nd ED 2004	8/6/2015	-0.543	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	140	330	71.4 - 743	Acceptable	SM9223 COLILERT 22nd ED 2004	8/6/2015	-0.807	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	130	330	51.2 - 985	Acceptable	SM9223 COLert18 22nd ED 2004	8/6/2015	-0.608	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	130	330	71.4 - 743	Acceptable	SM9223 COLert18 22nd ED 2004	8/6/2015	-0.897	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	130	330	51.2 - 985	Acceptable	SM 9223 B (Colilert®-18)-1997 1997	8/6/2015	-0.608	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	130	330	71.4 - 743	Acceptable	SM 9223 B (Colilert®-18)-1997 1997	8/6/2015	-0.897	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	291	330	51.2 - 985	Acceptable	SM9223 COLertQT 20th ED 1998	8/5/2015	0.427	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	291	330	71.4 - 743	Acceptable	SM9223 COLertQT 20th ED 1998	8/5/2015	0.542	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	291	330	51.2 - 985	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	8/5/2015	0.427	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	291	330	71.4 - 743	Acceptable	SM 9223 B (Colilert® Quanti-Tray®)-1997 1997	8/5/2015	0.542	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	210	330	51.2 - 985	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	8/5/2015	-0.0938	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	210	330	71.4 - 743	Acceptable	SM 9223 B (Colilert®-18 Quanti-Tray®)-1997 1997	8/5/2015	-0.182	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP WasteWatR™ Coliform MicrobE™ (cat# 576)												
2500	Total Coliforms (MF)	CFU/100mL		266	51.0 - 542	Not Reported				167	81.7	
2530	Fecal Coliforms (MF)	CFU/100mL		108	8.00 - 619	Not Reported				71.6	102	
2525	E.coli (MF)	CFU/100mL		266	6.00 - 1210	Not Reported				81.8	200	
2500	Total Coliforms (MPN)	MPN/100mL	210	330	51.2 - 985	Acceptable	SM9223 COLt18QT 21st ED	8/5/2015	-0.0938	225	156	
2530	Fecal Coliforms (MPN)	MPN/100mL		330	26.5 - 1040	Not Reported				166	169	
2525	E.coli (MPN)	MPN/100mL	210	330	71.4 - 743	Acceptable	SM9223 COLt18QT 21st ED	8/5/2015	-0.182	230	112	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		128	49.0 - 212	Not Reported				102	27.3	
2520	Enterococci (MPN)	MPN/100mL	109	164	37.0 - 334	Acceptable	SM 9230 D Enterolert®	8/5/2015	-0.0430	111	49.4	
2540	Fecal Streptococci (MF)	CFU/100mL		128	38.0 - 381	Not Reported				120	57.1	
2540	Fecal Streptococci (MPN)	MPN/100mL	109	164	44.2 - 907	Acceptable	SM 9230 D Enterolert®	8/5/2015	-0.634	200	144	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		128	49.0 - 212	Not Reported				102	27.3	
2520	Enterococci (MPN)	MPN/100mL	330	164	37.0 - 334	Acceptable	SM 9230 B-2007 2007	8/4/2015	4.43	111	49.4	
2540	Fecal Streptococci (MF)	CFU/100mL		128	38.0 - 381	Not Reported				120	57.1	
2540	Fecal Streptococci (MPN)	MPN/100mL	330	164	44.2 - 907	Acceptable	SM 9230 B-2007 2007	8/4/2015	0.903	200	144	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

WP Enterococci (cat# 880)												
2520	Enterococci (MF)	CFU/100mL		128	49.0 - 212	Not Reported				102	27.3	
2520	Enterococci (MPN)	MPN/100mL	330	164	37.0 - 334	Acceptable	SM9230B MPN	8/4/2015	4.43	111	49.4	
2540	Fecal Streptococci (MF)	CFU/100mL		128	38.0 - 381	Not Reported				120	57.1	
2540	Fecal Streptococci (MPN)	MPN/100mL	330	164	44.2 - 907	Acceptable	SM9230B MPN	8/4/2015	0.903	200	144	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

ERA
A Waters Company

2003 NELAC Evaluation Report

Study: **WP-246**

ERA Customer Number: **M327601**

Laboratory Name: **Eurofins Eaton Analytical, Inc - Monrovia**

Organic Results

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	31.2	33.4	7.60 - 58.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.117	32.0	7.19	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4340	Acrylonitrile	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4375	Benzene	µg/L	39.7	41.3	28.9 - 53.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.395	41.5	4.52	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4395	Bromodichloromethane	µg/L	43.0	36.4	21.8 - 51.0	Acceptable	EPA 624 Appendix A 1982	8/4/2015	1.69	37.0	3.57	
4400	Bromoform	µg/L	28.8	26.0	15.6 - 36.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	1.17	24.5	3.67	
4950	Bromomethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	52.6	55.6	37.1 - 76.0	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.590	56.7	7.02	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4455	Carbon tetrachloride	µg/L	23.0	24.0	12.9 - 33.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.114	22.6	3.43	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4575	Chlorodibromomethane	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4485	Chloroethane	µg/L	20.4	21.8	8.72 - 34.9	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.388	22.0	4.08	

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	7/24/2015				
4505	Chloroform	µg/L	22.0	24.1	16.9 - 31.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.735	24.0	2.78	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		52.4	31.4 - 73.4	Not Reported				50.0	8.46	
4585	1,2-Dibromoethane (EDB)	µg/L		13.1	8.52 - 17.7	Not Reported				12.7	1.60	
4595	Dibromomethane	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4610	1,2-Dichlorobenzene	µg/L	34.0	37.9	26.5 - 49.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-1.01	37.7	3.70	
4615	1,3-Dichlorobenzene	µg/L	23.4	25.6	17.9 - 33.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.661	25.0	2.43	
4620	1,4-Dichlorobenzene	µg/L	17.8	20.1	14.1 - 26.1	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.929	19.6	1.96	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4630	1,1-Dichloroethane	µg/L	36.6	39.1	24.8 - 53.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.597	39.2	4.29	
4635	1,2-Dichloroethane	µg/L	38.2	41.3	29.3 - 54.7	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.650	41.6	5.15	
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4645	cis-1,2-Dichloroethylene	µg/L	18.8	21.1	14.5 - 28.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.930	20.9	2.25	
4700	trans-1,2-Dichloroethylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4655	1,2-Dichloropropane	µg/L	37.6	37.1	26.0 - 48.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.186	38.3	3.89	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4685	trans-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4765	Ethylbenzene	µg/L	50.8	51.7	36.2 - 67.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.0398	51.0	5.92	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	32.3	39.0	23.4 - 54.6	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-1.19	38.1	4.89	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	32.2	32.6	9.96 - 53.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.111	31.5	6.16	
5005	Naphthalene	µg/L		< 6.30	0.00 - 6.30	Not Reported						
5015	Nitrobenzene	µg/L		28.3	8.95 - 35.3	Not Reported				32.5	5.23	
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	25.8	25.4	16.5 - 34.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.190	25.3	2.76	
5105	1,1,1,2-Tetrachloroethane	µg/L	43.1	40.8	26.5 - 55.1	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.445	41.1	4.52	
5110	1,1,2,2-Tetrachloroethane	µg/L	55.3	54.4	35.4 - 73.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.122	54.3	8.07	
5115	Tetrachloroethylene	µg/L	< 0.50	< 4.30	0.00 - 4.30	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5140	Toluene	µg/L	39.5	42.6	29.8 - 55.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.639	42.0	3.93	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5165	1,1,2-Trichloroethane	µg/L	17.8	19.2	13.4 - 25.0	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.527	18.9	2.09	
5170	Trichloroethylene	µg/L	26.2	28.2	17.8 - 37.5	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.639	28.3	3.24	
5175	Trichlorofluoromethane	µg/L	20.9	22.6	9.04 - 36.2	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.204	21.8	4.21	
5180	1,2,3-Trichloropropane (TCP)	µg/L	41.9	42.6	17.8 - 65.3	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.0231	42.1	7.61	
5210	1,2,4-Trimethylbenzene	µg/L		24.4	15.9 - 32.9	Not Reported				23.0	3.14	
5215	1,3,5-Trimethylbenzene	µg/L		< 6.50	0.00 - 6.50	Not Reported						
5225	Vinyl acetate	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 624 Appendix A 1982	8/4/2015				
5240	m&p-Xylene	µg/L	74.2	71.5	42.9 - 100	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.306	71.8	7.94	
5250	o-Xylene	µg/L	29.5	29.6	17.8 - 41.4	Acceptable	EPA 624 Appendix A 1982	8/4/2015	-0.0756	29.8	3.34	
5260	Xylenes, total	µg/L	104	101	60.6 - 141	Acceptable	EPA 624 Appendix A 1982	8/4/2015	0.254	101	11.4	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830)												
4315	Acetone	µg/L	31.7	33.4	7.60 - 58.7	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.0476	32.0	7.19	
4320	Acetonitrile	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4325	Acrolein	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4340	Acrylonitrile	µg/L	< 2.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4375	Benzene	µg/L	42.4	41.3	28.9 - 53.7	Acceptable	EPA 8260B 2 1996	8/4/2015	0.203	41.5	4.52	
4385	Bromobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4390	Bromochloromethane	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4395	Bromodichloromethane	µg/L	40.8	36.4	21.8 - 51.0	Acceptable	EPA 8260B 2 1996	8/4/2015	1.07	37.0	3.57	
4400	Bromoform	µg/L	25.1	26.0	15.6 - 36.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.158	24.5	3.67	
4950	Bromomethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4410	2-Butanone (MEK)	µg/L	< 5.00	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4435	n-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4440	sec-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4445	tert-Butylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5000	tert-Butyl methyl ether (MTBE)	µg/L	56.0	55.6	37.1 - 76.0	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.106	56.7	7.02	
4450	Carbon disulfide	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4455	Carbon tetrachloride	µg/L	22.9	24.0	12.9 - 33.2	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0851	22.6	3.43	
4475	Chlorobenzene	µg/L	< 0.50	< 7.00	0.00 - 7.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4575	Chlorodibromomethane	µg/L	< 6.00	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4485	Chloroethane	µg/L	20.8	21.8	8.72 - 34.9	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.290	22.0	4.08	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4500	2-Chloroethylvinylether	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	7/24/2015				
4505	Chloroform	µg/L	24.2	24.1	16.9 - 31.3	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0553	24.0	2.78	
4960	Chloromethane	µg/L	< 0.50	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4535	2-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4540	4-Chlorotoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/L		52.4	31.4 - 73.4	Not Reported				50.0	8.46	
4585	1,2-Dibromoethane (EDB)	µg/L		13.1	8.52 - 17.7	Not Reported				12.7	1.60	
4595	Dibromomethane	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	8/4/2015				
4610	1,2-Dichlorobenzene	µg/L	39.0	37.9	26.5 - 49.3	Acceptable	EPA 8260B 2 1996	8/4/2015	0.341	37.7	3.70	
4615	1,3-Dichlorobenzene	µg/L	23.4	25.6	17.9 - 33.3	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.661	25.0	2.43	
4620	1,4-Dichlorobenzene	µg/L	20.8	20.1	14.1 - 26.1	Acceptable	EPA 8260B 2 1996	8/4/2015	0.600	19.6	1.96	
4625	Dichlorodifluoromethane (Freon 12)	µg/L	< 0.50	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4630	1,1-Dichloroethane	µg/L	37.6	39.1	24.8 - 53.7	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.364	39.2	4.29	
4635	1,2-Dichloroethane	µg/L	40.4	41.3	29.3 - 54.7	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.223	41.6	5.15	
4640	1,1-Dichloroethylene	µg/L	< 0.50	< 6.20	0.00 - 6.20	Acceptable	EPA 8260B 2 1996	8/4/2015				
4645	cis-1,2-Dichloroethylene	µg/L	21.0	21.1	14.5 - 28.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0492	20.9	2.25	
4700	trans-1,2-Dichloroethylene	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
4655	1,2-Dichloropropane	µg/L	38.6	37.1	26.0 - 48.2	Acceptable	EPA 8260B 2 1996	8/4/2015	0.0707	38.3	3.89	
4660	1,3-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4665	2,2-Dichloropropane	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
4670	1,1-Dichloropropene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4680	cis-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	8/4/2015				
4685	trans-1,3-Dichloropropylene	µg/L	< 0.50	< 6.50	0.00 - 6.50	Acceptable	EPA 8260B 2 1996	8/4/2015				
4765	Ethylbenzene	µg/L	47.3	51.7	36.2 - 67.2	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.631	51.0	5.92	
4835	Hexachlorobutadiene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
4840	Hexachloroethane	µg/L		< 3.30	0.00 - 3.30	Not Reported						
4860	2-Hexanone	µg/L	< 10.0	< 4.40	0.00 - 4.40	Acceptable	EPA 8260B 2 1996	8/4/2015				
4900	Isopropylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4910	4-Isopropyltoluene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
4975	Methylene chloride	µg/L	34.4	39.0	23.4 - 54.6	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.760	38.1	4.89	
4995	4-Methyl-2-pentanone (MIBK)	µg/L	30.7	32.6	9.96 - 53.3	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.133	31.5	6.16	
5005	Naphthalene	µg/L		< 6.30	0.00 - 6.30	Not Reported						
5015	Nitrobenzene	µg/L		28.3	8.95 - 35.3	Not Reported				32.5	5.23	
5090	n-Propylbenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						
5100	Styrene	µg/L	25.6	25.4	16.5 - 34.3	Acceptable	EPA 8260B 2 1996	8/4/2015	0.117	25.3	2.76	
5105	1,1,1,2-Tetrachloroethane	µg/L	43.1	40.8	26.5 - 55.1	Acceptable	EPA 8260B 2 1996	8/4/2015	0.445	41.1	4.52	
5110	1,1,2,2-Tetrachloroethane	µg/L	55.2	54.4	35.4 - 73.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.110	54.3	8.07	
5115	Tetrachloroethylene	µg/L	< 0.50	< 4.30	0.00 - 4.30	Acceptable	EPA 8260B 2 1996	8/4/2015				
5140	Toluene	µg/L	45.0	42.6	29.8 - 55.4	Acceptable	EPA 8260B 2 1996	8/4/2015	0.760	42.0	3.93	
5150	1,2,3-Trichlorobenzene	µg/L		< 5.00	0.00 - 5.00	Not Reported						

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Volatiles (cat# 830) (Continued)												
5155	1,2,4-Trichlorobenzene	µg/L		< 4.30	0.00 - 4.30	Not Reported						
5160	1,1,1-Trichloroethane	µg/L	< 0.50	< 6.00	0.00 - 6.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
5165	1,1,2-Trichloroethane	µg/L	17.7	19.2	13.4 - 25.0	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.575	18.9	2.09	
5170	Trichloroethylene	µg/L	28.6	28.2	17.8 - 37.5	Acceptable	EPA 8260B 2 1996	8/4/2015	0.103	28.3	3.24	
5175	Trichlorofluoromethane	µg/L	21.3	22.6	9.04 - 36.2	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.109	21.8	4.21	
5180	1,2,3-Trichloropropane (TCP)	µg/L	41.9	42.6	17.8 - 65.3	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.0231	42.1	7.61	
5210	1,2,4-Trimethylbenzene	µg/L		24.4	15.9 - 32.9	Not Reported				23.0	3.14	
5215	1,3,5-Trimethylbenzene	µg/L		< 6.50	0.00 - 6.50	Not Reported						
5225	Vinyl acetate	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
5235	Vinyl chloride	µg/L	< 0.30	< 8.00	0.00 - 8.00	Acceptable	EPA 8260B 2 1996	8/4/2015				
5240	m&p-Xylene	µg/L	67.5	71.5	42.9 - 100	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.538	71.8	7.94	
5250	o-Xylene	µg/L	29.1	29.6	17.8 - 41.4	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.195	29.8	3.34	
5260	Xylenes, total	µg/L	96.6	101	60.6 - 141	Acceptable	EPA 8260B 2 1996	8/4/2015	-0.396	101	11.4	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	16.0	25.0	9.17 - 31.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.672	18.8	4.19	
5505	Acenaphthylene	µg/L	18.8	29.3	9.84 - 36.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.692	22.4	5.16	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5555	Anthracene	µg/L	< 5.0	< 3.90	0.00 - 3.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5575	Benzo(a)anthracene	µg/L	32.4	41.5	19.1 - 51.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.691	36.9	6.51	
5585	Benzo(b)fluoranthene	µg/L	15.5	21.2	7.96 - 27.7	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.560	17.1	2.79	
5600	Benzo(k)fluoranthene	µg/L	19.0	26.1	5.50 - 41.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.809	22.5	4.27	
5590	Benzo(g,h,i)perylene	µg/L	16.1	20.4	8.84 - 28.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.584	18.0	3.17	
5580	Benzo(a)pyrene	µg/L	< 5.0	< 2.40	0.00 - 2.40	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5630	Benzyl alcohol	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5660	4-Bromophenyl-phenylether	µg/L	< 5.0	< 8.60	0.00 - 8.60	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5670	Butylbenzylphthalate	µg/L	97.5	142	42.6 - 194	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.602	115	29.0	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	54.3	82.9	29.3 - 98.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.832	64.9	12.8	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5780	bis(2-Chloroisopropyl)ether	µg/L	26.9	47.4	8.99 - 63.5	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.983	34.7	7.91	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	27.6	49.1	14.1 - 60.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.673	33.5	8.70	
5825	4-Chlorophenyl-phenylether	µg/L	< 5.0	< 9.90	0.00 - 9.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5855	Chrysene	µg/L	23.0	29.0	13.7 - 38.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.653	26.0	4.64	
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5905	Dibenzofuran	µg/L	< 5.0	< 11.3	0.00 - 11.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5925	Di-n-butylphthalate	µg/L	44.0	63.8	23.7 - 86.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.934	54.6	11.4	
4610	1,2-Dichlorobenzene	µg/L	41.1	78.1	8.31 - 92.7	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.189	44.3	17.1	
4615	1,3-Dichlorobenzene	µg/L	< 3.10	< 3.10	0.00 - 3.10	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
4620	1,4-Dichlorobenzene	µg/L	28.8	57.6	6.48 - 66.1	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.221	31.6	12.7	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6070	Diethylphthalate	µg/L	49.5	77.0	13.3 - 109	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.789	59.2	12.3	
6135	Dimethylphthalate	µg/L	94.0	139	13.9 - 200	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.494	107	25.7	
6185	2,4-Dinitrotoluene	µg/L	< 5.0	< 4.50	0.00 - 4.50	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6190	2,6-Dinitrotoluene	µg/L	54.9	92.4	37.5 - 111	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.34	75.0	15.0	
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6065	bis(2-Ethylhexyl)phthalate	µg/L	44.7	66.2	21.9 - 90.1	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.14	57.3	11.1	
6265	Fluoranthene	µg/L	48.4	64.1	30.2 - 79.5	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.490	53.1	9.53	
6270	Fluorene	µg/L	24.4	34.7	15.0 - 45.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.793	28.4	5.06	
6275	Hexachlorobenzene	µg/L	41.6	65.9	29.4 - 79.1	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.06	52.2	10.1	
4835	Hexachlorobutadiene	µg/L	65.8	144	17.6 - 169	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.300	76.5	35.6	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
4840	Hexachloroethane	µg/L	54.6	115	11.5 - 126	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.190	60.1	29.0	
6315	Indeno(1,2,3-cd)pyrene	µg/L	< 10.0	< 9.20	0.00 - 9.20	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6320	Isophorone	µg/L	42.6	80.9	29.5 - 101	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.10	56.3	12.5	
6385	2-Methylnaphthalene	µg/L	23.5	34.6	5.69 - 46.8	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.317	25.6	6.76	
5005	Naphthalene	µg/L	39.6	64.8	15.4 - 79.2	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.348	43.7	11.7	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5015	Nitrobenzene	µg/L	40.4	70.5	22.9 - 84.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.13	52.1	10.3	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	61.8	97.6	9.76 - 113	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.804	47.9	17.3	
6535	N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.60	0.00 - 5.60	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	59.2	102	33.1 - 128	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-1.14	76.1	14.8	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	57.9	83.6	39.1 - 100	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.623	65.8	12.6	
6665	Pyrene	µg/L	< 5.0	< 4.90	0.00 - 4.90	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	74.9	141	28.0 - 165	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.279	82.7	27.8	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833)												
5500	Acenaphthene	µg/L	16.0	25.0	9.17 - 31.3	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.672	18.8	4.19	
5505	Acenaphthylene	µg/L	18.8	29.3	9.84 - 36.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.692	22.4	5.16	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5545	Aniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5555	Anthracene	µg/L	< 5.0	< 3.90	0.00 - 3.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5595	Benzidine	µg/L	< 50.0	< 200	0.00 - 200	Acceptable	EPA 8270C 3 1996	8/12/2015				
5575	Benzo(a)anthracene	µg/L	32.4	41.5	19.1 - 51.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.691	36.9	6.51	
5585	Benzo(b)fluoranthene	µg/L	15.5	21.2	7.96 - 27.7	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.560	17.1	2.79	
5600	Benzo(k)fluoranthene	µg/L	19.0	26.1	5.50 - 41.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.809	22.5	4.27	
5590	Benzo(g,h,i)perylene	µg/L	16.1	20.4	8.84 - 28.0	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.584	18.0	3.17	
5580	Benzo(a)pyrene	µg/L	< 5.0	< 2.40	0.00 - 2.40	Acceptable	EPA 8270C 3 1996	8/12/2015				
5630	Benzyl alcohol	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5660	4-Bromophenyl-phenylether	µg/L	< 5.0	< 8.60	0.00 - 8.60	Acceptable	EPA 8270C 3 1996	8/12/2015				
5670	Butylbenzylphthalate	µg/L	97.5	142	42.6 - 194	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.602	115	29.0	
5680	Carbazole	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5745	4-Chloroaniline	µg/L	< 5.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5760	bis(2-Chloroethoxy)methane	µg/L	54.3	82.9	29.3 - 98.0	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.832	64.9	12.8	
5765	bis(2-Chloroethyl)ether	µg/L	< 10.0	< 5.90	0.00 - 5.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5780	bis(2-Chloroisopropyl)ether	µg/L	26.9	47.4	8.99 - 63.5	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.983	34.7	7.91	
5790	1-Chloronaphthalene	µg/L		< 10.0	0.00 - 10.0	Not Reported						

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
5795	2-Chloronaphthalene	µg/L	27.6	49.1	14.1 - 60.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.673	33.5	8.70	
5825	4-Chlorophenyl-phenylether	µg/L	< 5.0	< 9.90	0.00 - 9.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5855	Chrysene	µg/L	23.0	29.0	13.7 - 38.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.653	26.0	4.64	
5895	Dibenz(a,h)anthracene	µg/L	< 10.0	< 6.90	0.00 - 6.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5905	Dibenzofuran	µg/L	< 5.0	< 11.3	0.00 - 11.3	Acceptable	EPA 8270C 3 1996	8/12/2015				
5925	Di-n-butylphthalate	µg/L	44.0	63.8	23.7 - 86.0	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.934	54.6	11.4	
4610	1,2-Dichlorobenzene	µg/L	41.1	78.1	8.31 - 92.7	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.189	44.3	17.1	
4615	1,3-Dichlorobenzene	µg/L	< 3.10	< 3.10	0.00 - 3.10	Acceptable	EPA 8270C 3 1996	8/12/2015				
4620	1,4-Dichlorobenzene	µg/L	28.8	57.6	6.48 - 66.1	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.221	31.6	12.7	
5945	3,3'-Dichlorobenzidine	µg/L	< 5.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	8/12/2015				
6070	Diethylphthalate	µg/L	49.5	77.0	13.3 - 109	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.789	59.2	12.3	
6135	Dimethylphthalate	µg/L	94.0	139	13.9 - 200	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.494	107	25.7	
6185	2,4-Dinitrotoluene	µg/L	< 5.0	< 4.50	0.00 - 4.50	Acceptable	EPA 8270C 3 1996	8/12/2015				
6190	2,6-Dinitrotoluene	µg/L	54.9	92.4	37.5 - 111	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.34	75.0	15.0	
6200	Di-n-octylphthalate	µg/L	< 10.0	< 8.20	0.00 - 8.20	Acceptable	EPA 8270C 3 1996	8/12/2015				
6065	bis(2-Ethylhexyl)phthalate	µg/L	44.7	66.2	21.9 - 90.1	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.14	57.3	11.1	
6265	Fluoranthene	µg/L	48.4	64.1	30.2 - 79.5	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.490	53.1	9.53	
6270	Fluorene	µg/L	24.4	34.7	15.0 - 45.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.793	28.4	5.06	
6275	Hexachlorobenzene	µg/L	41.6	65.9	29.4 - 79.1	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.06	52.2	10.1	
4835	Hexachlorobutadiene	µg/L	65.8	144	17.6 - 169	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.300	76.5	35.6	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Base/Neutrals (cat# 833) (Continued)												
6285	Hexachlorocyclopentadiene	µg/L	< 10.0	< 5.00	0.00 - 5.00	Acceptable	EPA 8270C 3 1996	8/12/2015				
4840	Hexachloroethane	µg/L	54.6	115	11.5 - 126	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.190	60.1	29.0	
6315	Indeno(1,2,3-cd)pyrene	µg/L	< 10.0	< 9.20	0.00 - 9.20	Acceptable	EPA 8270C 3 1996	8/12/2015				
6320	Isophorone	µg/L	42.6	80.9	29.5 - 101	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.10	56.3	12.5	
6385	2-Methylnaphthalene	µg/L	23.5	34.6	5.69 - 46.8	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.317	25.6	6.76	
5005	Naphthalene	µg/L	39.6	64.8	15.4 - 79.2	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.348	43.7	11.7	
6460	2-Nitroaniline	µg/L	< 10.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
6465	3-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
6470	4-Nitroaniline	µg/L	< 20.0	< 10.0	0.00 - 10.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5015	Nitrobenzene	µg/L	40.4	70.5	22.9 - 84.3	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.13	52.1	10.3	
6525	N-Nitrosodiethylamine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6530	N-Nitrosodimethylamine	µg/L	61.8	97.6	9.76 - 113	Acceptable	EPA 8270C 3 1996	8/12/2015	0.804	47.9	17.3	
6535	N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.60	0.00 - 5.60	Acceptable	EPA 8270C 3 1996	8/12/2015				
6545	N-Nitroso-di-n-propylamine	µg/L	59.2	102	33.1 - 128	Acceptable	EPA 8270C 3 1996	8/12/2015	-1.14	76.1	14.8	
6590	Pentachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6615	Phenanthrene	µg/L	57.9	83.6	39.1 - 100	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.623	65.8	12.6	
6665	Pyrene	µg/L	< 5.0	< 4.90	0.00 - 4.90	Acceptable	EPA 8270C 3 1996	8/12/2015				
5095	Pyridine	µg/L		< 10.0	0.00 - 10.0	Not Reported						
6715	1,2,4,5-Tetrachlorobenzene	µg/L		< 10.0	0.00 - 10.0	Not Reported						
5155	1,2,4-Trichlorobenzene	µg/L	74.9	141	28.0 - 165	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.279	82.7	27.8	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 625 Appendix A 1982	8/12/2015				
5700	4-Chloro-3-methylphenol	µg/L	32.3	40.7	15.7 - 50.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.243	33.8	6.04	
5800	2-Chlorophenol	µg/L	53.8	74.2	21.7 - 89.4	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.0472	54.4	12.7	
6000	2,4-Dichlorophenol	µg/L	24.4	33.9	13.1 - 42.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.351	26.0	4.57	
6005	2,6-Dichlorophenol	µg/L		66.2	22.3 - 84.6	Not Reported				52.2	9.41	
6130	2,4-Dimethylphenol	µg/L	43.4	54.4	15.8 - 68.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.248	41.3	8.33	
6360	4,6-Dinitro-2-methylphenol	µg/L	28.2	45.3	12.5 - 68.2	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.665	32.6	6.68	
6175	2,4-Dinitrophenol	µg/L	40.0	124	12.4 - 173	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-2.28	92.7	23.1	
6400	2-Methylphenol	µg/L	41.6	57.9	13.5 - 69.9	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.257	39.1	9.88	
6410	4-Methylphenol	µg/L	57.9	83.6	8.36 - 109	Acceptable	EPA 625 Appendix A 1982	8/12/2015	0.383	53.1	12.5	
6490	2-Nitrophenol	µg/L	65.6	90.2	28.2 - 112	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.326	69.6	12.4	
6500	4-Nitrophenol	µg/L	81.9	116	11.6 - 157	Acceptable	EPA 625 Appendix A 1982	8/12/2015	1.29	51.2	23.7	
6605	Pentachlorophenol	µg/L	36.9	50.0	13.6 - 69.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.316	39.4	7.78	
6625	Phenol	µg/L	72.0	115	11.5 - 155	Acceptable	EPA 625 Appendix A 1982	8/12/2015	1.06	46.6	24.0	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	39.7	50.0	18.4 - 65.3	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.307	42.4	8.80	
6840	2,4,6-Trichlorophenol	µg/L	41.8	60.1	22.7 - 73.6	Acceptable	EPA 625 Appendix A 1982	8/12/2015	-0.525	46.3	8.52	

WP-246 2003 NELAC Evaluation Final Complete Report

ERA
A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Acids (cat# 834)												
5610	Benzoic acid	µg/L	< 30.0	< 30.0	0.00 - 30.0	Acceptable	EPA 8270C 3 1996	8/12/2015				
5700	4-Chloro-3-methylphenol	µg/L	32.3	40.7	15.7 - 50.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.243	33.8	6.04	
5800	2-Chlorophenol	µg/L	53.8	74.2	21.7 - 89.4	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.0472	54.4	12.7	
6000	2,4-Dichlorophenol	µg/L	24.4	33.9	13.1 - 42.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.351	26.0	4.57	
6005	2,6-Dichlorophenol	µg/L		66.2	22.3 - 84.6	Not Reported				52.2	9.41	
6130	2,4-Dimethylphenol	µg/L	43.4	54.4	15.8 - 68.6	Acceptable	EPA 8270C 3 1996	8/12/2015	0.248	41.3	8.33	
6360	4,6-Dinitro-2-methylphenol	µg/L	28.2	45.3	12.5 - 68.2	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.665	32.6	6.68	
6175	2,4-Dinitrophenol	µg/L	40.0	124	12.4 - 173	Acceptable	EPA 8270C 3 1996	8/12/2015	-2.28	92.7	23.1	
6400	2-Methylphenol	µg/L	41.6	57.9	13.5 - 69.9	Acceptable	EPA 8270C 3 1996	8/12/2015	0.257	39.1	9.88	
6410	4-Methylphenol	µg/L	57.9	83.6	8.36 - 109	Acceptable	EPA 8270C 3 1996	8/12/2015	0.383	53.1	12.5	
6490	2-Nitrophenol	µg/L	65.6	90.2	28.2 - 112	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.326	69.6	12.4	
6500	4-Nitrophenol	µg/L	81.9	116	11.6 - 157	Acceptable	EPA 8270C 3 1996	8/12/2015	1.29	51.2	23.7	
6605	Pentachlorophenol	µg/L	36.9	50.0	13.6 - 69.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.316	39.4	7.78	
6625	Phenol	µg/L	72.0	115	11.5 - 155	Acceptable	EPA 8270C 3 1996	8/12/2015	1.06	46.6	24.0	
6735	2,3,4,6-Tetrachlorophenol	µg/L		< 30.0	0.00 - 30.0	Not Reported						
6835	2,4,5-Trichlorophenol	µg/L	39.7	50.0	18.4 - 65.3	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.307	42.4	8.80	
6840	2,4,6-Trichlorophenol	µg/L	41.8	60.1	22.7 - 73.6	Acceptable	EPA 8270C 3 1996	8/12/2015	-0.525	46.3	8.52	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	340	396	230 - 540	Acceptable	SM5320B 20th ED 1997	8/6/2015	-1.15	382	36.6	
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	340	396	230 - 540	Acceptable	SM 5320 B-2010 2010	8/6/2015	-1.15	382	36.6	

WP-246 2003 NELAC Evaluation Final Complete Report

A Waters Company

Nilda B. Cox
QA Officer
Eurofins Eaton Analytical, Inc - Monrovia
750 Royal Oaks Dr.
Suite 100
Monrovia, CA 91016
626-386-1170

EPA ID: CA00006
ERA Customer Number: M327601
Report Issued: 08/31/15
Study Dates: 07/13/15 - 08/27/15

NELAC Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
WP Total Organic Halides (TOX) (cat# 895)												
2045	Total Organic Halides (TOX)	µg/L	340	396	230 - 540	Acceptable	EPA 9020B 2 1994	8/6/2015	-1.15	382	36.6	

CERTIFICATE OF EXCELLENCE

In recognition of the quality of your laboratory in proficiency testing for

WP-246

Eurofins Eaton Analytical, Inc - Monrovia

is issued this certificate of achievement by ERA. This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 1064 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

Acids	Base/Neutrals	Boron	Bromide	Color
Enterococci	Hexavalent Chromium	Mercury	Nitrite	pH
Settleable Solids	Silica	Sulfide	Surfactants - MBAS	Tin & Titanium
Total Cyanide	Total Organic Halides (TOX)	Total Residual Chlorine	Turbidity	Volatile Solids
Volatiles	WasteWatR™ Coliform MicrobE™			

Kristina Sanchez
Quality Officer

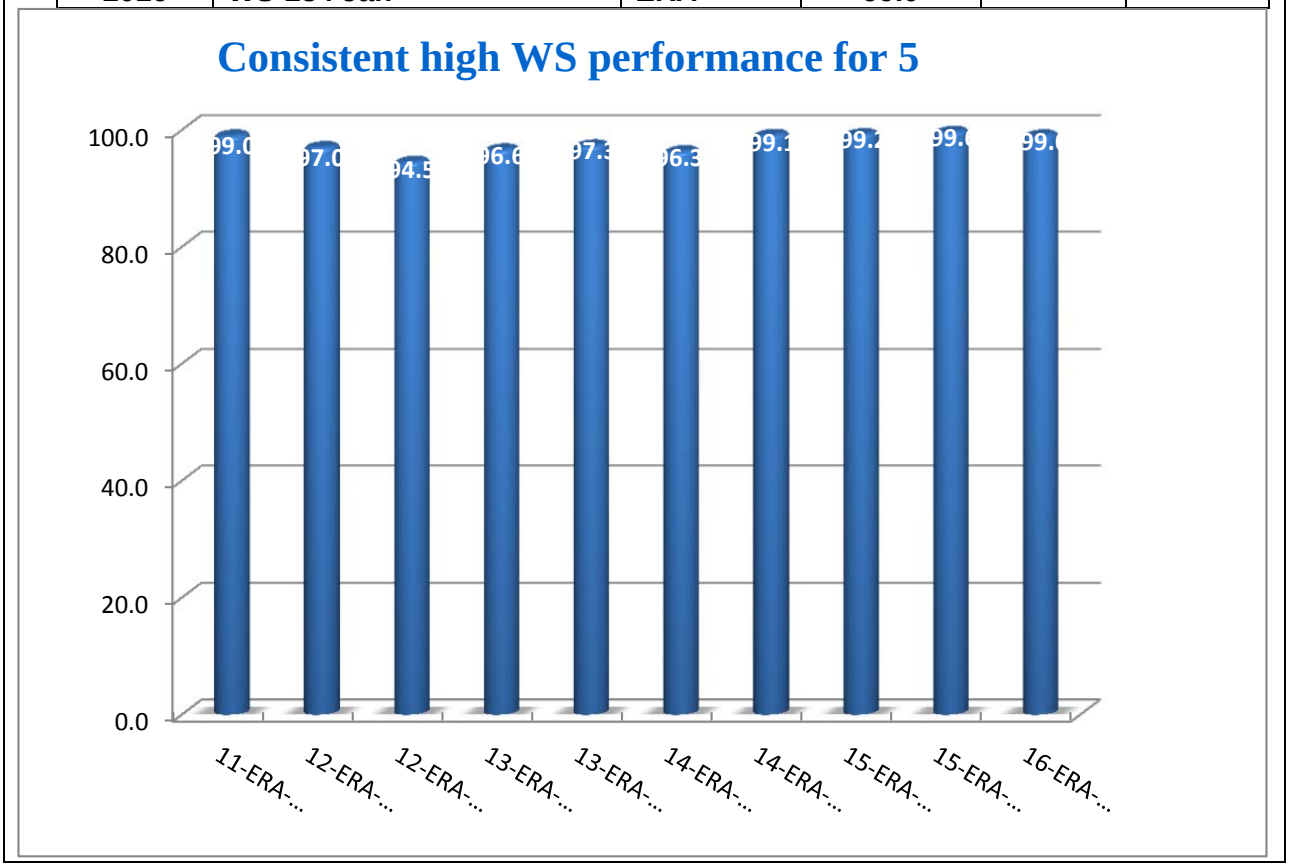
M327601

1. **Review of internal and external proficiency testing results:**

INTERNAL QC RESULTS	COMMENTS
QA Monthly review of QC trends: EEA Monrovia QA and the IT department developed a query script on 5/4/15 to track QC flags via STARLIMS flagging system. This flag query is still under testing since QA manually sorts and filters the excel worksheet generated by LIMS to check the QC flag trends.	QA will continue to work with IT to develop and refine the query so it will automatically generate consecutive flag trends by method, analysis date, and instrument to expedite review.
INTERNAL DOUBLE BLIND RESULTS	**COMMENTS**
Not available	*None*
EXTERNAL PT SAMPLE RESULTS	**COMMENTS**

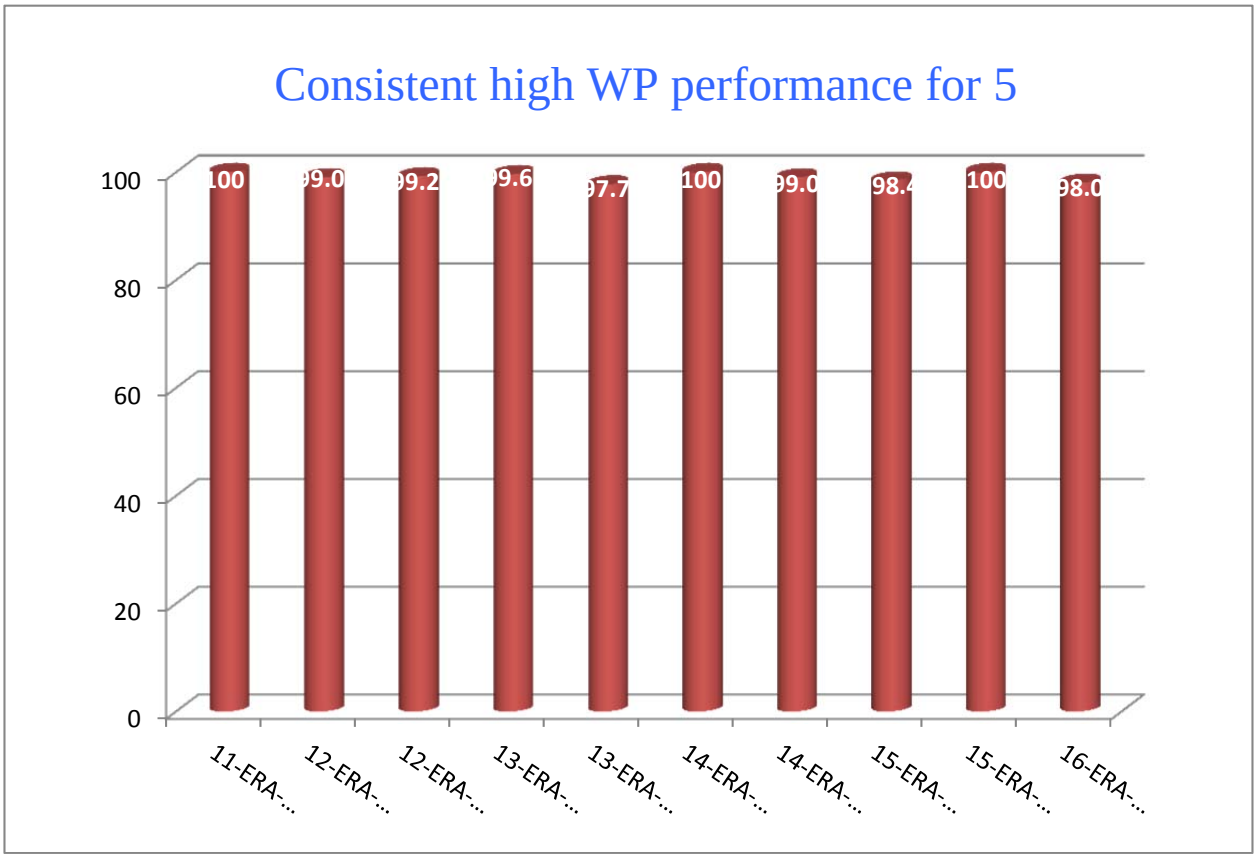
Monrovia, WS

Year	Study number	Provider	Score (%)	Average	2014
2015	WS 222 Jan	ERA	99.2	99.4	97.6
2015	WS 228 July	ERA	99.6		
2016	WS-234 Jan	ERA	99.0		



Monrovia, WP

Year	Study number	Provider	Score (%)	Average	2014
2015	WP 240, Jan	ERA	98.4	99.2	100
2015	WP 246, July	ERA	100		
2016	WP-252, Jan	ERA	98.0		



Monrovia, RAD

Year	Study number	Provider	Score (%)	Average
2015	RAD-100	ERA	100	
2015	RAD-102	ERA	100	
2016	RAD -104/QR030416L1	ERA	100	

For EEA Monrovia Asbestos TEM analysis by EPA 100.2, the laboratory participated in PT studies provided by New York Department of Health. For 2015 and 2016, all results were acceptable.

The total cost for PT studies, including Internal Check Samples for the Monrovia facility in 2015 from ERA, our main provider, was $16,230.00 which was $6,243.00 less than in 2014.

OTHER EVALUATIONS	COMMENTS
Other PTs: 1. Nestle PTs in Feb/Aug 2015 & Feb 2016 2. Legionella PT from CDC 3. Cryptosporidium PT from Wisconsin State; April/Oct 2015 & April 2016 4. Microcystin PT from Abraxis in May 2015 & May 2016 5. CLO4 PTs – MA specific and WW CLO4 from Phenova	1. All results were acceptable for all client PTs from Nestle. 2. Legionella PT did have a failed PT due to possible transportation issues 3. Cryptosporidium PTs passed 4. Microcystin PT – 1 failure in 2015 for Instrumental Analysis. 2016 PT report will be released in June. 5. CLO4 PTs – All Acceptable

11. Certification Status:

EEA Monrovia is certified in 42 states and three US territories. • Puerto Rico was added to the list in July 2014 • The lab dropped certification for Alaska in June 2014 & West Virginia in December 2014. • EEA Monrovia dropped certification for Wisconsin in Feb 2016.
EEA Monrovia applied for LT2 certification by EPA 1622 and EPA 1623 Cryptosporidium. • We passed the PT study provided by Wisconsin State Laboratory of Hygiene • We had three initial onsite audits by the states of Oregon, California and Arizona. • We are now approved for Giardia & Cryptosporidium by EPA 1623 in: 1. Arizona 2. California 3. Colorado 4. Connecticut 5. Montana 6. New Mexico 7. Nevada 8. Oregon 9. Texas 10. Utah 11. Washington 12. Wyoming
EEA Monrovia also applied and was approved by ORELAP as of May 2016 for 1. EPA 537 2. 1,4-Dioxane by EPA 522 in DW & WW

12. Colton Facility:

Proficiency Test (PT)

The Colton Laboratory is an ELAP accredited lab; hence it only needs one passing PT for each WS and WP study per year. The main studies for Colton were ERA WS-222 and WP-240 in 2015 and ERA WS-234 and WP-252 in 2016.

Summary of Colton's PT studies:

Study No.	Study Date	Passing Rate	Failed Analyte
ERA WS-222	01/05/15- 02/19/15	97%	Coli10-18 hr Enumeration faile
ERA WS QR 031015I	03/10/15 – 4/1/15	100%	Makeup for WS-222
ERA WS QR 042815J1	04/28/15 – 5/8/15	50%	Quantitray Initial Certification Qtray-18 hr failed
ERA WS QR 060815A	06/08/15 – 6/12/15	100%	Makeup for Qtray-18 hr
ERA WS-234, Jan 2016	01/11/16 - 02/25/16	100%	All passed
ERA WP-240	01/12/15 – 02/26/15	100%	All passed
ERA WP QR 042815J2	4/28/15 – 5/8/15	100%	Quantitray Initial Certification
ERA WP-252, Jan 2016	1/18/16 – 3/3/16	42%	Quantitray-18 & 24 hr failed
ERA WP-032116Q	3/21/16 – 4/13/16	100%	Makeup PT passed

Staff Changes

Ms. Polly Barrowman continues to be the current Technical Director of Eurofins Eaton Analytical Laboratories' microbiology departments. Since 2011 Rose Steele-Fredendall and Rachel Cheng handle all aspects of the day-to-day workings of the Colton Facility. Analytical Service Manager Cam Pham resigned on June 12, 2015. Aja Ortega was terminated in January of 2015. John Quintana was hired as a microbiologist/field sampler in late 2014. Rachel Cheng is now working in Monrovia under Debbie Frank effective 6/15/15.

Certification (Certificate No: CA 2812)

Renewal was submitted to California ELAP on 10/7/2014. The certification is in effect until February 28, 2017. Addition of Quantitray 18-hr and 24-hr was requested on 5/4/2015 and was audited 5/22/15 by CA ELAP. Colton is certified for Quantitray 18-hr and 24-hr in DW & WW.

13. Folsom Facility:

Proficiency Test (PT)

The Folsom Facility is an ELAP certified laboratory effective January 2014 (CA2820); therefore, Folsom Facility is required only one passing PT study per year. A 'Quik Response' PT from ERA was analyzed to obtain accreditation.

Summary of Folsom's PT studies:

Study No.	Study	Passing Rate	Failed Analyte
ERA WS-222, Jan 2015	Full Micro	100%	All passed
ERA WS-234, Jan 2016	Full Micro	100%	All passed
ERA WP-240, Jan 2015	Full Micro	100%	All passed
ERA WP-252, Jan 2016	Full Micro	100%	All passed

Staff Changes In 2014, Joline Neal was approved as the Laboratory Director of the Folsom laboratory. After she resigned on 5/1/2015, Magnolia Busse is taking over supervision the-day-to-day operational at the site. However Polly Barrowman is currently the Laboratory Director/Technical Manager for our Folsom laboratory.
Certification (Certificate No: CA 2820)

14. Fresno Facility:

Proficiency Test (PT) The Fresno Facility is an ELAP accredited lab, therefore it only needs one passing PT for each WS and WP study per year. The main studies for Fresno in 2016: • ERA WS-234, Jan 2016 • ERA WP-252, Jan 2016 Results were all acceptable.
Staff Changes Monica Van Natta was trained to perform microbiology analysis in preparation for the laboratory opening as a backup to the principle analyst, Mary Thao. Monica is currently managing the day-to-day operational at the site. However Polly Barrowman is currently the Laboratory Director/Technical Manager for the EEA Folsom laboratory.
Certification (Certificate No: CA 2966) Microbiology laboratory for Drinking Water and Wastewater located in Fresno, CA and was certified by CA ELAP on 4/21/15.

eurofins | Eaton Analytical

Laboratory Audits

Oregon

Environmental Laboratory Accreditation Program

NELAP Recognized

Department of Agriculture, Laboratory Services Division
Department of Environmental Quality, Laboratory and Environmental Assessment Division
Oregon State Public Health Laboratory

Oregon State Public Health Laboratory
3150 NW 229th Ave, Suite 100
Hillsboro, OR 97124
(503) 693-4122
FAX (503) 693-5602

Eurofins Eaton Analytical Inc - Monrovia

4034

On-Site Assessment Report

Assessment Date: February 26, 2015

Report Date: March 24, 2015

Assessment Team:

Lizbeth Garcia	Oregon DEQ Laboratory
Shannon M Swantek	Oregon DHS
Gary K Ward	Oregon DHS

Table of Contents

Introduction ... 3
Objective ... 5
Summary ... 6
Deficiencies Requiring Immediate Attention ... 8
Deficiencies To Be Addressed In The Corrective Action Plan ... 9
QA - Quality Management Systems ... 9
Method(s): QA ... 9
Organic - GC-MS Extractables ... 9
Method(s): EPA 625, EPA 525.2, and EPA 548.1 ... 9
Organic - GC-MS Volatiles ... 9
Method(s): EPA 624, EPA 524.3, EPA 524.2, and EPA 524.2 ... 9
Inorganic-NonMetals - Colorimetric, AutoAnalyzer, Spect UV-Vis ... 10
Method(s): EPA 350.1, EPA 420.1, SM 3500-Cr B, SM 4500-CN G, SM 4500-P E, SM 4500-S2¯ D, SM 4500-SiO2 C, SM 5220 D, SM 5540 C, EPA 410.4, EPA 335.4, SM 4500-ClO2 D, EPA 351.2, EPA 353.2, EPA 365.1, EPA 420.4, SM 4500-NH3 H, SM 2120 B, SM 3500-Cr B, SM 4500-Cl G, and SM 5910 B ... 10
Inorganic-NonMetals - Gravimetric ... 10
Method(s): SM 2540 F-97, SM 2540 F, EPA 160.4, SM 2540 D-97, SM 2540 D, SM 2540 C-97, SM 2540 C, SM 2540 B, and SM 2540 B-97 ... 10
Inorganic-Metals - Metals ... 11
Method(s): EPA 200.8, EPA 200.7, SM 2330 B, SM 2340 B-97, SM 2340 B, and EPA 245.1 11
Micro - Cryptosporidium ... 11
Method(s): EPA 1623, 1622 ... 11
Recommendations ... 13
QA - Quality Management Systems ... 13
Method(s): QA ... 13
Organic - GC-MS Extractables ... 13
Method(s): EPA 625, EPA 525.2, and EPA 548.1 ... 13
Inorganic-NonMetals - Gravimetric ... 14
Method(s): SM 2540 F-97, SM 2540 F, EPA 160.4, SM 2540 D-97, SM 2540 D, SM 2540 C-97, SM 2540 C, SM 2540 B, and SM 2540 B-97 ... 14

Introduction

ORELAP, in accordance to the NELAP standards, must conduct a comprehensive on-site assessment of each laboratory prior to granting initial accreditation. In addition, an on-site assessment of each accredited laboratory must be completed at least every two years. Assessments for cause may be conducted more frequently as determined necessary by the accrediting authority.

This report is divided up into the following sections:

1. **Objective**- Describes the objective of the on-site assessment.
2. **Summary** - Presents an executive summary of the on-site assessment.
3. **Deficiencies Requiring Immediate Attention** - Presents a list of deficiencies observed during the on-site or in review of documentation. These deficiencies are judged to affect data quality and must be addressed prior to accreditation. Any updated procedures, policies, SOPs, or other missing or updated documentation must be submitted to ORELAP prior to accreditation.
4. **Deficiencies To Be Addressed In The Corrective Action Plan** - Presents a list of deficiencies observed during the on-site or in review of documentation. These deficiencies are judged not to affect data quality directly and may be addressed in the corrective action plan. The plan must include the action that the laboratory will implement to correct each deficiency and the time period required to accomplish that corrective action.
5. **Recommendations** - Presents comments and recommendations aimed at helping the laboratory improve. No action is required on information in this section

Cited deficiencies are listed with the on-site assessment question number, the actual standard reference, and the question from the on-site assessment checklist. These references appear in an italic font. The actual standard may be found at http://www.NELAC-institute.org/standards.php#pab1_1. The assessor's finding of nonconformance to the NELAP standard follows in a blue font.

In response to this on-site assessment report, the laboratory must submit a report to ORELAP called a "Corrective Action Plan", which describes the laboratory's plan to correct each cited deficiency. The ORELAP assessment team will review the Corrective Action Plan and determine whether it adequately addresses cited deficiencies.

The Corrective Action Plan and evidence of compliance in response to deficiencies requiring immediate attention must be submitted to the ORELAP administrator, in writing, within 30 calendar days from the receipt of the On-site Assessment Report. Failure to respond in this time frame may result in denial or revocation of accreditation, in part or total.

Any response should be sent to Gary.K.Ward@state.or.us or the following address:

Oregon State Public Health Laboratory
3150 NW 229th Ave., Suite 100
Hillsboro, OR 97124
Attn: ORELAP administrator

Introduction

An electronic form containing the citations listed below will be emailed to you. ORELAP requests that you use this form as your formal Corrective Action Plan although you must address each deficiency listed in this report. The laboratory should note any omissions or additions to the electronic form with respect to this report. If you do not receive the email or would like the form in a different format (Word document, Excel Spreadsheet, etc.), please contact the lead ORELAP assessor.

When responding to this report, please address each of the following:

1. Respond to each and every deficiency cited in the order in which they occur, by topic heading and question number. The electronic form should be provided concurrently with this report. The electronic form lists each deficiency in a table format with room for the laboratory to insert its response.
2. In addition to submitting a completed corrective action form, provide evidence of the correction whenever possible and reference it in the electronic form. If a document is to be revised, submit a copy of the revision, clearly indicating the changes made in response to the cited deficiency. If an item needs to be purchased, submit a copy of the purchase receipt. If a procedure needs to be performed, submit a copy of the log or bench sheet where the procedure was documented.
3. If the collection of evidence showing compliance to the standard will take more than 30 calendar days, please indicate this in the electronic form with a deadline for completion. ORELAP will anticipate receiving a copy of the correction at the end of the deadline.
4. Please enter all plans for corrections in the corrective action electronic form and submit it within the 30 day time window, but please do not send required Corrective Action Plan documents until all are completed at your deadline.
5. Meet all deadlines.
6. The electronic corrective action form and all other documents must be submitted to the ORELAP administrator via email or by mailing a CD.

Objective

The on-site assessment is an integral and requisite part of the NELAP laboratory accreditation program and is one of the primary means of determining a laboratory's capabilities and qualifications. During the on-site assessment, the assessment team collects and evaluates information and makes observations which are used to judge the laboratory's conformance to the established accreditation standards.

The responsibility for promulgating and enforcing occupational safety and health standards rests with the US Department of Labor. The laboratory is also responsible for meeting all local and Federal hazardous waste requirements. While it is not within the scope of the assessment team to evaluate health and safety regulations or potential hazardous waste violations, the assessment team is required to report these to the appropriate laboratory official and when deemed necessary, forward any potential violations to the appropriate authority. The accreditation on-site assessment is not intended to certify that the laboratory is in compliance with any applicable health and safety or hazardous waste regulations or requirements.

The following areas have been evaluated to determine the laboratory's compliance with the NELAP standards:

* Organization and management
* Quality System - establishment, assessments, essential quality controls and data verification
* Personnel
* Physical facilities - accommodation and environment
* Equipment and reference materials
* Measurement traceability and calibration
* Test methods and standard operating procedures (SOPs)
* Sample handling, sample acceptance policy and sample receipt
* Records
* Laboratory report format and contents
* Subcontracting of samples
* Outside support services and supplies
* Dealing with complaints

Receiving or maintaining accreditation requires that the laboratory meet the standards as presented, implement all corrective actions, pay all fees, and participate in the proficiency testing program as outlined in the NELAP standards.

Summary

We would like to thank the management and staff for their hospitality, openness, and honesty during the on-site assessment conducted at Eurofins Eaton Analytical Inc located in Monrovia, CA on 2/26/15. The on-site assessment was conducted to fulfill the NELAP requirement following a new application.

The assessment team included:

Shannon Swantek, lead assessor and technical expert

Gary Ward, ORELAP Administrator andf technical expert

Lizbeth Garcia, technical expert

Each assessor has signed a “Conflict of Interest Attestation” form to assert their impartial evaluation of the laboratory’s compliance to the NELAP standards.

Attending the opening conference on 2/23/15 included:

Gary Ward

Nilda Cox

Kasey Raley

Ed Wilson

Walter Hsieh

Yoon Cha

Robert Dean

Charley Grady

Fred Haley

Shu TingLiu

Polly Barrowman

Karlos Rueckert

Andora Nguyen

Su Zhen

Alz Haghani

Attending the closing conference on 2/26/15 included:

Gary Ward

Shannon Swantek

Lizbeth Garcia

Summary

Nilda Cox

Kasey Raley

Ed Wilson

Walter Hsieh

Yoon Cha

Robert Dean

Charley Grady

Shu TingLiu

Polly Barrowman

Su Zhen

Shannon Swantek

Lizbeth Garcia

Alz Haghani

Andy Eaton

CJ Belt

Lisa Ramirez

During the opening and/or closing conference you completed ORELAP's "NELAP Assessment Confidentiality Notice" and "Notice to Declare Information as Confidential" forms. No ORELAP assessor requested copies of documents or records for which you wished to declare as confidential. You were also provided an "ORELAP Assessment Appraisal Form" and the assessment team would like to encourage you to complete it and forward it onto the ORELAP administrator.

Deficiencies Requiring Immediate Attention

There are no deficiencies requiring immediate corrective action.

Deficiencies To Be Addressed In The Corrective Action Plan

QA - Quality Management Systems

Method(s): QA

112 Reference: 5.4.4.2
Are records of reviews, including any significant changes maintained?

Note: For review of routine and other simple tasks, the date and the identification (e. g. the initials) of the person in the laboratory responsible for carrying out the contracted work are considered adequate. For repetitive routine tasks, the review need be made only at the initial enquiry stage or on granting of the contract for on-going routine work performed under a general agreement with the client, provided that the client's requirements remain unchanged. For new, complex or advanced environmental testing and/or calibration tasks, a more comprehensive record should be maintained.

Contracts and project management conversations with clients are kept in unsorted email and not tracked with the project or sample.

221 Reference: 5.4.13.4
Do follow-up audit activities verify and record the implementation and effectiveness of the corrective action taken?

The laboratory is not entering non-conformances found during the internal audit into the corrective action system as referenced in V2M1 4.11.1. This prevents some root cause analysis and follow up activities from being recorded. The records from the 2013 Internal Audit show findings that are not closed out.

Organic - GC-MS Extractables

Method(s): EPA 625, EPA 525.2, and EPA 548.1

485 Reference: 5.5.9.1
Are the data resulting from quality control procedures recorded in such a way that trends are detectable and, where practicable, are statistical techniques applied to the reviewing of the results?

The laboratory is not listing both MRL checks in the extraction record.

Organic - GC-MS Volatiles

Method(s): EPA 624, EPA 524.3, EPA 524.2, and EPA 524.2

173 Reference: 5.4.12.1.5
Is the history of the sample readily understood through the documentation (including interlaboratory transfers of samples and/or extracts?

The laboratory is not tracking in the records which vial they are analyzing if there is more than one vial.

357 Reference: 5.5.5.2.1.a
Are the records of all repair and maintenance activities including service calls kept?

The laboratory is not recording when they perform flow meter checks.

Deficiencies To Be Addressed In The Corrective Action Plan

399 Reference: 5.5.5.10.c.1-4
Is instrument calibration verification performed (CCV):
At the beginning and end of each analytical batch (except, if an internal standard is used, only one verification needs to be performed at the beginning of the analytical batch) or
Whenever it is expected that the analytical system may be out of calibration or might not meet the verification acceptance criteria or
If the time period for calibration or the most previous calibration verification has expired or
For analytical systems that contain a calibration verification requirement?

The laboratory is not bracketing with an ending CCV as required by the Drinking Water manual.

598 Reference: D.1.1.3
Does the laboratory document procedures for determining the effect of the sample matrix on method performance?

Note: These controls alone are not used to judge laboratory performance. Examples of matrix specific QC include: Matrix Spike (MS); Matrix Spike Duplicate (MSD); sample duplicates; and surrogate spikes.

The laboratory is not running Matrix Spikes.

Inorganic-NonMetals - Colorimetric, AutoAnalyzer, Spect UV-Vis

Method(s): EPA 350.1, EPA 420.1, SM 3500-Cr B, SM 4500-CN G, SM 4500-P E, SM 4500-S2¯ D, SM 4500-SiO2 C, SM 5220 D, SM 5540 C, EPA 410.4, EPA 335.4, SM 4500-ClO2 D, EPA 351.2, EPA 353.2, EPA 365.1, EPA 420.4, SM 4500-NH3 H, SM 2120 B, SM 3500-Cr B, SM 4500-Cl G, and SM 5910 B

399 Reference: 5.5.5.10.c.1-4
Is instrument calibration verification performed (CCV):
At the beginning and end of each analytical batch (except, if an internal standard is used, only one verification needs to be performed at the beginning of the analytical batch) or
Whenever it is expected that the analytical system may be out of calibration or might not meet the verification acceptance criteria or
If the time period for calibration or the most previous calibration verification has expired or
For analytical systems that contain a calibration verification requirement?

Chlorine Residual and Chlorine by DPD Method - Not bracketing with a CCV

Inorganic-NonMetals - Gravimetric

Method(s): SM 2540 F-97, SM 2540 F, EPA 160.4, SM 2540 D-97, SM 2540 D, SM 2540 C-97, SM 2540 C, SM 2540 B, and SM 2540 B-97

562 Reference: D.1.1.1.a
Is the method blank processed along with and under the same conditions as the associated samples including all steps of the analytical procedure?

For Settleable Solids, the laboratory is not rotating the blank through funnels.

Deficiencies To Be Addressed In The Corrective Action Plan

Inorganic-Metals - Metals

Method(s): EPA 200.8, EPA 200.7, SM 2330 B, SM 2340 B-97, SM 2340 B, and EPA 245.1

345 Reference: 5.5.4.7.1.b
Has the laboratory established SOPs to ensure that all quality control measures are reviewed, and evaluated before data are reported?

ICP-MS 200.8 Data was submitted without the review checklist by the analyst, The calibration curves are not being reviewed to see if the correlation coefficient is OK and then the Review checklist is marked as if it was done.

It is not clear how they report a QCS failure,

Micro - Cryptosporidium

Method(s): EPA 1623, EPA 1622

523 Reference: 5.5.10.5
When the test report contains results of tests performed by subcontractors, are these results clearly identified by subcontractor name or applicable accreditation number?

Report does not include:

1. OPR % recovery and MB results.

2. Following data for sample, OPR and MB:

- Number of filters used

- Number of slides

- Number of subsamples processed

- Elution time

- Filtration time

- Slide examination time

- Slide preparation time

- Slide staining time

- Cryptosporidium

- Giardia

- Pellet volume

- Total volume of resuspended concentrate

Deficiencies To Be Addressed In The Corrective Action Plan

- Volume transferred to IMS
- Volume filtered
- Elution Date
- Filtration Date
- Slide examination date
- Slide preparation date
- Slide staining date

Recommendations

QA - Quality Management Systems

Method(s): QA

135 Reference: 5.4.8
Does the laboratory have a policy and procedure for the resolution of complaints received from clients or other parties?

Recommend more detail in definition of complaint to ensure that all are being entered into complaint records.

468 Reference: 5.5.8.3.1.f
If chain of custody procedures are used, is a complete chain of custody record form maintained?

It is recommended that the laboratory document when they receive an incomplete COC that they are taking custody of the contents on the bottle kit list (which isn't officially a COC)

472 Reference: 5.5.8.3.2
Does this sample policy at least include:
___Proper, full, and complete documentation, which shall include sample identification, the location, date and time of collection, collector's name, preservation type, sample type and any special remarks concerning the sample
___Use of appropriate sample containers
___Procedures to be used when samples show signs of damage, contamination or inadequate preservation?

It is recommended the preservatives and bottle lot #s are tracked with the bottle kit send out.

Organic - GC-MS Extractables

Method(s): EPA 625, EPA 525.2, and EPA 548.1

364 Reference: 5.5.5.2.1.e
Are mechanical volumetric dispensing devices including burettes (except Class A glassware) checked for accuracy on at least a quarterly use basis?

For extractions, it is recommended that the laboratory check the accuracy of the volume dispensers

Recommendations

Inorganic-NonMetals - Gravimetric

Method(s): SM 2540 F-97, SM 2540 F, EPA 160.4, SM 2540 D-97, SM 2540 D, SM 2540 C-97, SM 2540 C, SM 2540 B, and SM 2540 B-97

399 Reference: 5.5.5.10.c.1-4
Is instrument calibration verification performed (CCV):
At the beginning and end of each analytical batch (except, if an internal standard is used, only one verification needs to be performed at the beginning of the analytical batch) or
Whenever it is expected that the analytical system may be out of calibration or might not meet the verification acceptance criteria.

For Solids (SM 2540 and 160.4), it is recommended that the laboratory using tighter standardized limits for recovery. (80-120% is typical)

Comment Type	Group	#	Deficiency	Response	Documentation
Corrective Action Plan	Quality Management Systems	112	Contracts and project management conversations with clients are kept in unsorted email and not tracked with the project or sample. (NELAC 5.4.4)	EEA has created a policy to govern how to properly sort and track client emails, as well as information on EEA's primary email archive, which is fully searchable for all emails for a >5 year period, even of emails for employees that have left the company. The policy addressed the retention and sorting of email correspondence by client name and project, as well as means for staff that deal with clients (Analytical Service Managers) to sort and store emails locally, which will allow better management of their email databases.	Attachment 1, Client Email Policy, Attachment 2a, 2b, 2c; documentation of general Archive Search ability for Jim Hein, who retired in 2013.
Corrective Action Plan	Quality Management Systems	221	The laboratory is not entering non-conformances found during the internal audit into the corrective action system as referenced in V2M1 4.11.1. This prevents some root cause analysis and follow up activities from being recorded. The records from the 2013 Internal Audit show findings that are not closed out. (NELAC 5.4.13.4, TNI V2 M1 4.11.1)	EEA internal audit corrective actions were tracked in a separate logbook related to internal audits. All nonconformances that require formal corrective actions including root cause analysis and follow-ups (PT failures, internal audit findings, Data Package Review, SOP Review, and external audit finding) as well as customer complaints are now tracked in a single unified log. The 2013 Internal Audit Findings have now been officially documeted as closed out in the 2013 Internal Audit log, though they had been closed out as proper findings long before. The consolidated CAR logbook will allow for a single location to document the closing of all findings.	Attachment 3, Updated logbook for CARs, including a notation of CAR's origination (e.g. External Audit, Internal Audit, PT, Complaint, etc), Attachment 4, Example of Closed 2013 Internal Audits

Corrective Action Plan	GC-MS Extractables (Methods 625, 525.2, 548.1, 549.2)	485	The laboratory is not listing both MRL checks in the extraction record.	EEA routinely analyzes 2 MRL checks for 549.2, one for samples that require standard reporting limits, and one for samples that require a lower limit as per client data quality objectives. At the time of the assessment, both MRL checks were not documented within the 549.2 preparation webform, but were documented in the extraction logbook, run logbook, and as a comment in the webform, and within the analytical run. The webform QC setup have been updated to accommodate both MRL Checks (MRL_CHK and MRLLW).	Attachment 5, Example of updated Webform
Corrective Action Plan	GC-MS Volatiles	173	The laboratory is not tracking in the records which vial they are analyzing if there is more than one vial. (NELAC 5.4.12.1.15) (624, 524.2, 524.3, 8260)	EEA has updated their data export to allow for the addition of vial numbers for GC-MS Volatiles vials, which was not tracked in the sequence as it was causing errors. The vial numbers were already being tracked for the GC related tests (HAA, THM, 504, etc), however the software for the GC-MS Volatiles department was not as easy to modify. Currently the sequence has been updated to denote which vial is analyzed for GC-MS Volatiles group and the data export function adapted to allow this.	Attachment 6, example 524.3 sequence with vial tracking, Attachment 7, example 524.2 sequencewith the vial tracking (also closing CCV for a later finding).
Corrective Action Plan	GC-MS Volatiles	357	The laboratory is not recording when they perform flow meter checks	EEA's GC-MS Volatiles group occasionally checks the flow on a purge and trap to verify that the instrument is properly sealed and there are no leaks. The flow itself is adjusted if necessary to meet the particular method's requirements. When the flow is checked and not adjusted, the analysts do not record the flow check verification as it was not considered maintenance. The laboratory currently records all checks of the purge flow, and any adjustments in the instrument maintenance log, in order to fully document maintenance and demonstrate the flow is properly set.	Attachment 8a & 8b, maintenance log example showing checking and adjustment of flow.

Corrective Action Plan	GC-MS Volatiles	399	The laboratory is not bracketing with an ending CCV as required by the Drinking Water manual.	The laboratory was not previously running closing CCVs for 524.2 as this was only a recommendation in the method under section 10.1. "These checks are required at the beginning of each work shift, but no less than every 12 hours. Additional periodic calibration checks are good laboratory practice. It is highly recommended that additional calibration checks be performed at the end of any cycle of continuous instrument operation, so that each set of field samples is bracketed by calibration check standards." Also as per TNI Standard (1.7.2 c) i. "Instrument calibration shall be performed at the beginning and end of each analytical batch. If an Internal Standard is used only one verification needs to be performed at the beginning of the analytical batch." (Continued)	Attachment 7, Example 524 Runlog using closing CCV (same as previous finding attachment). Attachment 9 Updated 524.2 SOP with closing CCV section added.
				(Continuation) The laboratory is now analyzing closing CCVs for 524.2, as per the EPA Manual for the Certification of Laboratories Analyzing Drinking Water (5th Edition)(Section 7.2.4) at a different concentration than the opening CCV, with the method limits of 70-130%, and collecting enough data points to determine if there are any analytes which control charts would give a better statistical acceptance limit.	

Corrective Action Plan	GC-MS Volatiles	598	The laboratory is not running Matrix Spikes.	As per D 1.1.3 of the NELAC 2003 standards, and V1M4, 1.7.3.3. of the TNI 2009 standards, a matrix spike, sample duplicates and surrogate spikes, are options for evaluating matrix effects on the analysis. Section D 1.1.3 b) states the frequency of the analysis of MS samples shall be determined as part of a systematic planning process or as specified by the test method. Currently EEA runs matrix spikes as required for 524.3, 624, and 8260 analyses per batch as well as per client request. EEA analyzes Matrix Spikes per client's request for EPA 524.2 as the laboratory needs more vials than are typically sent to clients to safely run matrix spikes in the event of reanalysis or dilution. EEA does not routinely analyze matrix spikes for 524.2 as allowed by section 9.10 of 524.2 "Sample matrix effects have not been observed when this method is used with distilled water, reagent water, drinking water, or ground water. *Therefore, analysis of a laboratory fortified sample matrix (LFM) is not required unless the criteria in Section 9.4 are not met."* (Continued)	Attachment 9, 524 SOP
				(Continuation) EEA already meets the requirements of 9.4, which are the injection and monitoring of Internal Standards. As per the TNI 2009 Standard, V1M4 1.7.3.3.1.b) "The frequency of matrix spikes are as specified by the method or may be determined as part of the contract review process". As discussed above, method 524.2 does not specify the analysis of matrix spikes. For 524.2, we monitor matrix effect through the addition of surrogates for each samples, standards, and QC. Additionally, as per Section 11.O of the 524 SOP, EEA will analzye any sample as a matrix spike that has an abrupt change in internal or surrogate standards that would be indicative of a matrix effect.	

Corrective Action Plan	Colorimetric, AutoAnalyzer, Spect UV-Vis	399	Chlorine Residual and Chlorine by DPD Method - Not bracketing with a CCV	For Chlorine residual, the LCS functions identically to the CCV. The laboratory has updated their benchsheet template to contain a LCS every 10 samples for chlorine residual. All other tests listed in the finding already contained repeating CCVs as part of the batch.	Attachment 10, updated chlorine benchsheet
Corrective Action Plan	Gravimetric	562	For Settleable Solids, the laboratory is not rotating the blank through funnels.	The laboratory uses 4 Imhoff cones which are indistinguishable from each other, and are washed frequently and set back on the cone holders in random order. The cones have now been labeled A-D, and an additional column to document which cone was used for each sample/QC was added to the logbook to ensure the cones are rotated between QC and actual samples.	Attachment 11a, 11b, Benchsheet showing cone tracking, and Updated benchsheet template with additional column for tracking of cones.
Corrective Action Plan	Metals	345	ICP-MS 200.8 Data was submitted without the review checklist by the analyst, The calibration curves are not being reviewed to see if the correlation coefficient is OK and then the Review checklist is marked as it was done. Not clear how they report a QCS failure,	Data review training was conducted with the Inorganics group on 10/21/14. A refresher training with all staff was conducted on 4/13/15 as a reminder of the critical need for thorough data review from both the primary and secondary reviewer to be consistently done. EEA's QA department will also follow-up with the impacted group (metals) to determine the effectiveness of the training by reviewing a data package once a week for a month, then re-evaluate. The review of the calibration curve and associated correlation coefficient was part of the trainings conducted, as well as part of the data review checklist that the primary and secondary reviewer sign off on for each batch they review. EEA now analyzes the 200.8 QCS daily. QCS failures would generally result in the reanalysis of the entire batch for failed analytes of interest due to the frequency of detects for many metals. (Continued)	Attachment 12, documentation of data review training., Attachment 13 Updated 200.8 Data Review Checklist

				(Continuation) In the event a QCS failed for a particular metal, and reported data was non-detect at the MRL (ND), then the data would be flagged in EEA's LIMS and the client report would display an appropriate qualifier along with the relevant analytes. (TNI 2009 V1M4 1.7.4.2 high bias LCS with Non-Detect for analytes of interest is acceptable)	
Corrective Action Plan	Cryptosporidium	523	When the test report contains results of tests performed by subcontractors, are these results clearly identified by subcontractor name or applicable accreditation number? Report does not include: 1. OPR % recovery and MB results. 2. Following data for sample, OPR and MB: - Number of filters used - Number of slides - Number of subsamples processed - Elution time - Filtration time - Slide examination time - Slide preparation time - Slide staining time - Cryptosporidium - Giardia - Pellet volume - Total volume of resuspended concentrate - Volume transferred to IMS - Volume filtered - Elution Date - Filtration Date - Slide examination date - Slide preparation date - Slide staining date	EEA's subcontractor (EEA in Southbend Indiana) has updated their report as per request to include the relevant information including applicable accreditation number.	Attachment 14, Example report from subcontractor with relevant information.
Recommendation	Quality Management Systems	135	Recommend more detail in definition of complaint to ensure that all are being entered into complaint records.	During the next Quality Manual update, EEA will add more detail to the definition of complaints. This will ensure that Analytical Service Managers (ASMs) are properly communicating true complaints to the QA department, and not screening out items that may be considered a complaint. All "complaints" received by ASMs from the customers shall be flagged in the ASM's email. The corrective action process is implemented to address complaints with merit and as per request by the customer.	

Recommendation	Quality Management Systems	468	It is recommended that the laboratory document when they receive an incomplete COC that they are taking custody of the contents on the bottle kit list (which isn't officially a COC)	COCs are uniquely identified with Folder Number to link COCs with final reports. Bottle Kits will also be linked with sample numbers by recording the relevant folder number in the bottle kit.	
Recommendation	Quality Management Systems	472	It is recommended the preservatives and bottle lot #s are tracked with the bottle kit send out.	Bottle kits track the preservative used. Bottle kits will be updated to include the lot numbers of bottles used.	
Recommendation	GC-MS Extractables	364	For extractions, it is recommended that the laboratory check the accuracy of the volume dispensers	The volume dispensers (large volue pipetors) in the extractions department will all be verified by the end of April and re-verified at least quarterly, or whenever the volume is adjusted.	
Recommendation	Gravimetric	399	For Solids (SM 2540 and 160.4), it is recommended that the laboratory using tighter standardized limits for recovery. (80-120% is typical)	As allowed by the method EEA utilizes control charts to determine the acceptance limits of SM2540/EPA 160.4. The control charts show a very stable trend with regards to the data points generated, and therefore EEA will use the statistically generated limits of 80-114% for TDS and 71-107% for TSS.	

One of the most common forms of correspondence with clients Eurofins Eaton Analytical (EEA) conducts is via electronic mail (email) between clients and Analytical Service Managers (ASMs). The following policy is in regards to saving and storing these communications, and maintaining compliance with the certification standards. As per EEA's TNI certification:

> ***4.4.2*** *Records of reviews, including any significant changes, shall be maintained. Records shall also be maintained of pertinent discussions with a customer relating to the customer's requirements or the results of the work during the period of execution of the contract.*
>
> *NOTE For review of routine and other simple tasks, the date and the identification (e.g. the initials) of the person in the laboratory responsible for carrying out the contracted work are considered adequate. For repetitive routine tasks, the review need be made only at the initial enquiry stage or on granting of the contract for on-going routine work performed under a general agreement with the customer, provided that the customer's requirements remain unchanged. For new, complex or advanced testing and/or calibration tasks, a more comprehensive record should be maintained.*

To comply with the requirements set forth in 4.4.2 of the ISO and TNI standards, EEA will utilize the current email database, accessible via the Symantec Archive for a full historical record, and via Outlook and the Outlook Archive, for a more recent view of email data.

Definitions:

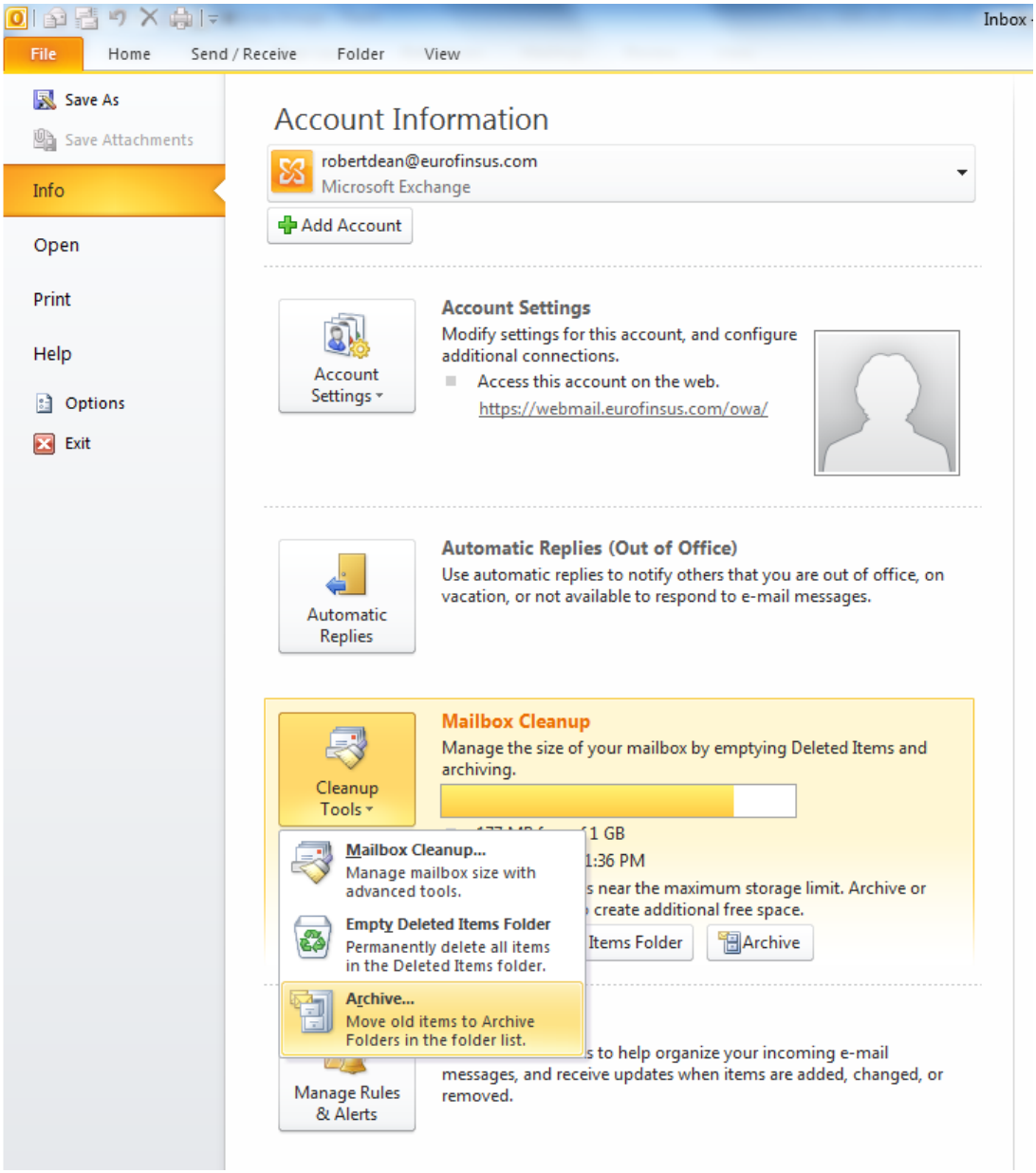
Symantec Archive: This is the large email archive that contains all of the email history of each employee. This archive currently is located at: https://personal.us.symanteccloud.com/Views/Regular/Login.aspx

Outlook: This is the program by which most EEA employees access their email. This email is archived simultaneously into the Symantec Archive, so therefore it is best to think of Outlook as being a filter by which one can view the Symantec Archive. Outlook has a limit of 1 GB of data within this filter. Once that is exceeded, the email must be reduced to below 1 GB by archiving or deletion. Note that deletion is not allowed for client related emails.

Outlook Archive: This is a mirror of the Symantec Archive, which can maintain the email locally and retrievable via Outlook, without the need to log into the Symantec Archive, and not hampered by the 1 GB limit. It is important to note that the Outlook Archive cannot be populated from the Symantec archive directly, it only is a longer listing of what is currently viewable in Outlook. If the Outlook Archive is corrupted or deleted, the email will not be removed from the Symantec Archive, it will just no longer be available from Outlook.

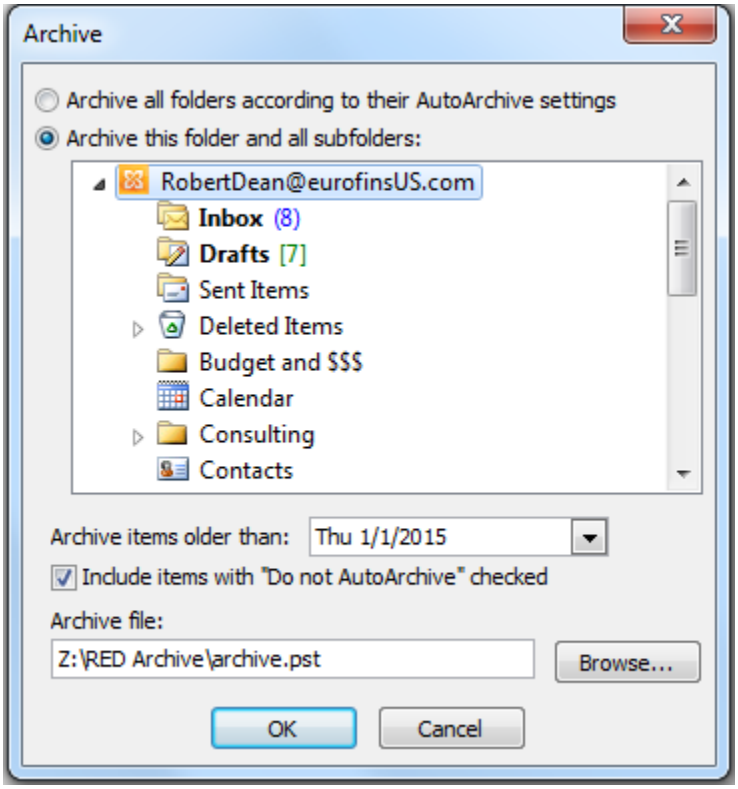
Setting up the local Outlook Archive:

As an additional means of searching current emails, while still keeping below the current 1 gigabyte limit on non-archived email storage, the Outlook Archive can be utilized. To access the Outlook Archive, Click on "File" in the upper left corner of Outlook, then on the "Cleanup Tools" box, and finally on "Archive"


Inbox
File
Home
Send / Receive
Folder
View
Save As
Save Attachments
Info
Open
Print
Help
Options
Exit
Account Information
robertdean@eurofinsus.com
Microsoft Exchange
Add Account
Account Settings
Account Settings
Modify settings for this account, and configure additional connections.
Access this account on the web.
https://webmail.eurofinsus.com/owa/
Automatic Replies
Automatic Replies (Out of Office)
Use automatic replies to notify others that you are out of office, on vacation, or not available to respond to e-mail messages.
Cleanup Tools
Mailbox Cleanup
Manage the size of your mailbox by emptying Deleted Items and archiving.
Mailbox Cleanup...
Manage mailbox size with advanced tools.
Empty Deleted Items Folder
Permanently delete all items in the Deleted Items folder.
Archive...
Move old items to Archive Folders in the folder list.
Archive
Manage Rules & Alerts
messages, and receive updates when items are added, changed, or removed.

This will bring up the Archive box. Note that when this box appears, it is defaulted to highlighting on "inbox". It should be clicked one further selection upwards, to your email address (UserName@eurofinsUS.com), otherwise your local archive will only consist of the inbox archive and not your entire mailbox.

After selecting your email address, you then select the date range that you want to **locally archive**. Note that this has no impact on the Symantec archive; it simply allows a local mirror. Therefore the local archive allows for simpler retrieval of email without logging into the Symantec archive, and while still keeping below the 1 GB outlook limit.



The choice of the archive path is up to the ASM, and has pros and cons on either choice:

Archive to your computer's hard drive. (e.g. C:\archive.pst). The only risk is that if your computer hard drive crashes, your local archive will be lost, and you must use the Symantec archive. A hard drive crash **WILL NOT** permanently delete emails, they will always be available in the Symantec archive.

Archive to the network. This would be a mapped drive such as the above example (Z:\RED Archive\archive.pst), which is mapped to a local server. The risk to using this archive is that if you use a laptop and login from home, you must log into the VPN Eurofins network to access this archive. Again, the Symantec archive is still available.

Retrieving emails from the Symantec Archive:

Emails may be searched from within Outlook, the Outlook Archive, and the Symantec Archive by any number of criteria, such as sender, recipient, date sent or received, content, and subject. Emails can be restored to Outlook by clicking "restore" in Symantec Archive, which will send the email back to Outlook's

inbox. This email will retain all of the previous information (such as sent date, subject, and content) as well as attachments.

General Sorting Criteria:

Email should be sorted into a large client folder with a title such as “client email” and then further sub-divided into folders for each client, and, if multiple large projects exist, by project as well, where sorting and searching can be conducted within each client’s folder to limit the results to relevant and desired data. Any similar sorting parameters are acceptable as long as the client’s emails are easily retrievable and located.

It is required, however, that all client emails are retained, attachments included, and never deleted. The only exception to this requirement would be client emails that are of a trivial nature (i.e. simple thank you’s, wishes for a happy birthday or to have a good weekend) that do not related to contract related specifications.

Nick Birech - Administrator - Eurofins Medinet Breda | Log O

Archive Administration

- Archive Overview
- My Config
  - Services
  - User Management
  - Managed Tags
  - **Accounts**
- Role Management
  - Administration Roles
  - Assign Accounts
- Policy Management
  - Archive Options
  - Disabled Users
  - Authentication Management
  - Set Trusted Networks
- Retention Management
  - Retention Policies
  - Storage Expiry
- Change Password
- Reporting
  - Logs
  - Reports

Archive Administration -> My Config -> Accounts -> Account Details

Help

Save | Save And New | Cancel

Del

Edit Account - JamesHein@eurofinsus.com

* First name: James
Last name: Hein
*Primary email address: JamesHein @ eurofinsus.com
* User name: UJSH@eurofins.com
* Password: ••••••••••••••
*Confirm Password: ••••••••••••••
Time Zone: (GMT-06:00) Central Time (US & Canada)
External Reviewer: ☐
Role: Account
Folder Synchronization Status: Enabled Last Update: Jul 6 2013 12:13AM

User Aliases

Add

User Aliases	Delete
JamesHein@eurofins.com	Delete
UJSH@eurofins.com	Delete

Page 1 of 1 Displaying 1 to 2 of 2 items

Note: Disabled fields indicate account details that cannot be edited when using remote account management.

Services

Personal Archive Access: ☐ Archive Active: ☐ Disabled: ☑
Discovery Archive Access: ☐ Office 365 PA Collection: ☐ Enterprise Vault.cloud Mobile: ☐
Chatter: ☐ Account Locked: ☐ BlackBerry PA Access: ☐

Account Notified On: 11/27/2012 11:20 AM
Account Created By:
Account Created On: 07/26/2012 2:09 AM
Archive Activation Date: 07/26/2012 2:08 AM
Archive Deactivation Date: 08/25/2014 11:54 AM

*Indicates Required Field

Discovery Archive

Nick Birech - Administrator | Feedback | Log Off

Investigations

- My Mailbox
- Managed Accounts
  - Accounts
  - Saved Searches
- Tags & Holds
- Batch Processes

James Hein - JamesHein@eurofinsus.com

Inbox | Sent | Save Search | Restore

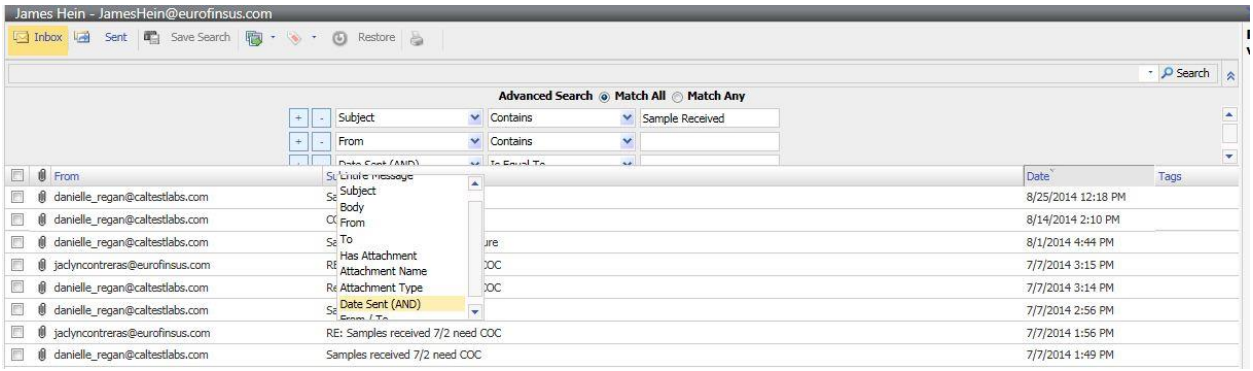
Search

From	Subject	Date	Tags
danielle_regan@caltestlabs.com	Samples received.	8/25/2014 12:18 PM	
danielle_regan@caltestlabs.com	COCs for samples received 8/14	8/14/2014 2:10 PM	
danielle_regan@caltestlabs.com	Samples received out of Tempature	8/1/2014 4:44 PM	
jaclyncontreras@eurofinsus.com	RE: Samples received 7/3 need COC	7/7/2014 3:15 PM	
danielle_regan@caltestlabs.com	Re: Samples received 7/2 need COC	7/7/2014 3:14 PM	
danielle_regan@caltestlabs.com	Samples received 7/3 need COC	7/7/2014 2:56 PM	
jaclyncontreras@eurofinsus.com	RE: Samples received 7/2 need COC	7/7/2014 1:56 PM	
danielle_regan@caltestlabs.com	Samples received 7/2 need COC	7/7/2014 1:49 PM	
kgerstma@ebmud.com	SFPUC TBT Sample Submission for SFIA_EFF_001 07-MA	5/8/2014 3:01 PM	
shannonleister@eurofinsus.com	DEG Samples shipped today	5/5/2014 2:12 PM	
debbiefrank@eurofinsus.com	Canceled: HONOLULU - Monthly Meeting	3/21/2014 9:49 PM	
debbiefrank@eurofinsus.com	HONOLULU - Monthly Meeting	3/14/2014 7:44 PM	
debbiefrank@eurofinsus.com	HONOLULU - Monthly Meeting	3/10/2014 7:57 PM	
debbiefrank@eurofinsus.com	HONOLULU - Monthly Meeting	3/10/2014 7:37 PM	
shannonleister@eurofinsus.com	TOC and HAAS Samples shipped today	2/12/2014 2:25 PM	
debbiefrank@eurofinsus.com	Canceled: HONOLULU - Monthly Meeting	2/10/2014 5:30 PM	
debbiefrank@eurofinsus.com	HONOLULU - Monthly Meeting	1/17/2014 2:31 PM	
debbiefrank@eurofinsus.com	HONOLULU - Monthly Meeting	1/15/2014 9:06 PM	
debbiefrank@eurofinsus.com	HONOLULU - Monthly Meeting	1/14/2014 12:47 PM	
edwilson@eurofinsus.com	13-1128 Thanksgiving.pptx	11/18/2013 11:07 AM	
onarikawa@hbws.org	RE: Kuou Well I (331-216) required analyses for Q4	11/15/2013 12:36 PM	
onarikawa@hbws.org	CONFERENCE CALL	11/12/2013 11:57 AM	
onarikawa@hbws.org	Conference Call	11/12/2013 11:50 AM	
debbiefrank@eurofinsus.com	HONOLULU - Monthly Meeting	11/11/2013 12:34 PM	
debbiefrank@eurofinsus.com	Canceled: Compliance Schedule In-depth Review	11/8/2013 11:49 PM	
walterhsieh@eurofinsus.com	RE: pilot study	10/15/2013 4:19 PM	
karlosrueckert@eurofinsus.com	RE: pilot study	10/15/2013 4:17 PM	
walterhsieh@eurofinsus.com	RE: pilot study	10/15/2013 3:53 PM	
kennysiu@eurofinsus.com	pilot study	10/15/2013 3:48 PM	
edwilson@eurofinsus.com	RE: samples not in bins	10/4/2013 11:32 AM	

Page 1 of 3550 / (Total 106486 Items)

Please select the email you wish to view

- Investigations
- E-Discovery
- Administration
- Alerts
- Dashboard
- Help


James Hein - JamesHein@eurofinsus.com
Inbox
Sent
Save Search
Restore
Search
Advanced Search
Match All
Match Any
Subject
Contains
Sample Received
From
Contains
Subject
Body
From
To
Has Attachment
Attachment Name
Attachment Type
Date Sent (AND)
From
Date
Tags
danielle_regan@caltestlabs.com
8/25/2014 12:18 PM
danielle_regan@caltestlabs.com
8/14/2014 2:10 PM
danielle_regan@caltestlabs.com
8/1/2014 4:44 PM
jaclyncontreras@eurofinsus.com
7/7/2014 3:15 PM
danielle_regan@caltestlabs.com
7/7/2014 3:14 PM
danielle_regan@caltestlabs.com
7/7/2014 2:56 PM
jaclyncontreras@eurofinsus.com
RE: Samples received 7/2 need COC
7/7/2014 1:56 PM
danielle_regan@caltestlabs.com
Samples received 7/2 need COC
7/7/2014 1:49 PM

Corrective Action Log Table of Contents

Item #	Date Initiated	Source	Department	Method	Client	PM	Description	Comments	Status	Assigned QA
287	3/30/2015	External Audit	Project Management		N/A		Project Management emails are not sorted and tracked with project	ORELAP Response	Initiated	RED
288	3/30/2015	External Audit	QA		N/A		Not entering internal audit CAR into CAR tracking	ORELAP Response	Initiated	YYC
289	3/30/2015	External Audit	GCMS	VOC	N/A		Not listing both MRL checks in extraction method	ORELAP Response	Initiated	RED
290	3/30/2015	External Audit	GCMS	VOC	N/A		Not tracking which vial is analyzed	ORELAP Response	Initiated	RED
291	3/30/2015	External Audit	GCMS	Extractions	N/A		Not recording when they perform flow meter check	ORELAP Response	Initiated	RED
292	3/30/2015	External Audit	GCMS	524.2	N/A		Not closing with a CCV	ORELAP Response	Initiated	RED
293	3/30/2015	External Audit	GCMS	524.2	N/A		Not running matrix spikes	ORELAP Response	Initiated	RED
294	3/30/2015	External Audit	Wet Chem	Chlorine Residual	N/A		Not bracketed by CCV	ORELAP Response	Initiated	RED
295	3/30/2015	External Audit	Wet Chem	SS	N/A		Not rotating blanks through all funnels	ORELAP Response	Initiated	RED
296	3/30/2015	External Audit	Metals	General Metals	N/A		No Review Checklist	ORELAP Response	Initiated	RED
297	3/30/2015	External Audit	Microbiology	LT2	N/A		Report Format Changes	ORELAP Response	Initiated	AIE
298	3/31/2015	Customer Complaint	Sample Receiving	TSS	Corona	CPP	TSS sample was never received		Follow-up	RED
299	3/31/2015	Customer Complaint	Wet Chem	TSS	Corona	CPP	Sample holding time was missed		Initiated	RED
300	4/13/2015	Customer Complaint	Microbiology	MTF	Pomona	CPP	Samples were read before allowed read window		Initiated	RED

Internal Audit No.	Scheduled Week	Department/Method	Audit by	Audit Status	Corrective Action	CA Status	CA open/close?	Follow-up/Audit (confirm CA is effective)
1	12/12/12	BOD/ CBOD – 5210B	Nilda	Done	See CAR 177 – SOP update completed	Completed	Closed	7/9/13 (Effective)
2	12/13/12	Phenol – 420.1/420.4	Nilda/ Yoon	Done	See CAR 177 - SOP update submitted	Completed	Closed	7/9/13 (Effective)
3	12/14/12	TOC/DOC – 5310C	Nilda/ Yoon	Done	See CAR 177 - SOP update submitted	Completed	Closed	7/9/13 (Effective)
4	12/14/12	TP by FIA – 365.1	Nilda/ Yoon	Done	See CAR 177 - SOP update submitted	Completed	Closed	7/9/13 (Effective)
5	12/14/12	Fluoride by IC	Nilda	Done	See CAR 177 – SOP update needed	Completed	Closed	7/9/13 (Effective)
6	12/12/12	2003 NELAC Asbestos Checklist	CJ Belt	Done	NA	Completed	Closed	NA
7	12/28/12	2003 NELAC Radiochemistry Checklist	Yoon	Done	NA	Completed	Closed	NA
8	1/11/13	2003 NELAC Chemistry Checklist	Fred	Done	NA	Completed	Closed	NA
9	1/15/13	2003 NELAC Microbiology Checklist	Polly	Done	NA	Completed	Closed	NA
10	1/18/13	2003 NELAC Chemistry Checklist	Walter	Done	NA	Completed	Closed	NA
11	1/21/13	UCMR3/ EPA 218.7 Data package review	Yoon/ Robert	Done	NA	Completed	Closed	NA
12	1/21/13	UCMR3/ EPA 200.8 Data package review	Yoon/ Robert	Done	NA	Completed	Closed	NA
13	1/22/13	UCMR3/ EPA 300.1 Data package review	Yoon/ Robert	Done	NA	Completed	Closed	NA
14	1/22/13	UCMR3/ EPA 522 Data package review	Yoon/ Robert	Done	NA	Completed	Closed	NA
15	1/23/13	UCMR3/ EPA 524.3 Data package review	Yoon/ Robert	Done	NA	Completed	Closed	NA
16	1/23/13	UCMR3/ EPA 537 Data package review	Yoon/ Robert	Done	NA	Completed	Closed	NA
17	1/25/13	UCMR3/ EPA 539 Data package review	Yoon/ Robert	Done	NA	Completed	Closed	NA
18	2/11/13	2011/2012 AMR Review	Yoon	Done	Reviewed priorities	Completed	Closed	7/8/13 (Effective)

Sheet For Run # 831320

Referenced Methods:	**EPA 549.2 HPLC_549**			
Start Date:	04/08/2015	**Time:** 1730	**Init:** acr	
Comp Date:	04/08/2015	**Time:** 1930	**Init:** acr	
Reviewed:	04/08/2015 04/09/15 RGWG		**Init:** R6WG	**Matrix: Water**

	Standard ID	Inj Vol	Units	Exp. Date
Surr Soln:	NA	NA	NA	NA
MRL Spk Soln:	10PPM 549 02 23 15-1A XWO	10	UL	05/31/2015
	10PPM 02 23 15-1A XWO	50	UL	05/31/2015
LCS Soln:	10PPM 549 02 23 15-1A XW0	125	UL	05/31/2015
	NA	NA	NA	NA
MS Soln:	10PPM 549- 02 23 15-1A XWO	125	UL	05/31/2015
	NA	NA	NA	NA
Solutions:	A 2015 04 08	10	ML	07/08/2015
	B 2015 03 30	10	ML	06/30/2015
	E 2015 04 08	8	ML	07/08/2015
	ION PAIR 2015 03 30	200	UL	06/30/2015
	10N NAOH 2015 02 12	NA	NA	02/12/2016

	ID	mfg/lot
Reagent H2O:	NANOPURE H2O	LAB
Solvent:	CH3-OH	EMD 53270
	NA	NA
	NA	NA
Salt:	NA	NA
Syringe:	NA	NA
	NA	NA
	NA	NA
	NA	NA
Disk:	EMPORE C8	3M 820114D
Preservatives:	NA2S2O3 2014 06 27	2014 10 27
	NA	NA
	NA	NA
	NA	NA
	NA	NA
	NA	NA
	NA	NA

Room Temp: 21.4 **Water Bath/Heating Block Temp:** N/A

	Folder #	Ordno	Client Code	Sample ID	Test	Vi (mL)	Vf (mL)	pH I	pH F	Cl-ppm
1	528284	201503250060	SMITH-NEPHEW	Raw Water Port 1733M	#50MUNI	250	10	7	7	
	Comment: E3-50						**Flags:**			
2	526660	201503250061	SMITH-NEPHEW	Raw Water Pory 1705M	#50MUNI	250	10	7	7	
	Comment: E4-50						**Flags:**			
3	528289	201503250062	SMITH-NEPHEW	Raw Water Port 1704M	#50MUNI	250	10	7	7	
	Comment: E5-49						**Flags:**			
4	527415	201503300223	SMITH-NEPHEW	Pony 1705M, City Water Smith & Nephew Curacao	#50MUNI	250	10	7	7	
	Comment: E6-1						**Flags:**			
5	527417	201503300226	SMITH-NEPHEW	Port 1704M City Water, Smith and Nephew Curacao	#50MUNI	250	10	7	7	
	Comment: C1-2						**Flags:**			
6	527419	201503300231	SMITH-NEPHEW	PORT 1733M Cold PWS Loop Smith & Nephew Curacao	#50MUNI	250	10	7	7	
	Comment: C2-2						**Flags:**			
7	527420	201503300232	SMITH-NEPHEW	PORT 1744M, Hot PW Loop, Smith & Nephew Curacao	#50MUNI	250	10	7	7	
	Comment: C3-2						**Flags:**			
8	528038	201504010765A	POMONA	W10	@549_2-REG C	250	10	7	7	
	Comment: B1-16						**Flags:**			
9	528110	201504020114C	CDI	599-5141 Municipal Source	#DSC BAT1 C	250	10	7	7	
	Comment: B2-42						**Flags:**			
10	528261	201504030093	MAP	COMP2 02125 (001), 02300 (005)	@DIQUAT C	250	10	7	7	
	Comment: C5-19 20						**Flags:**			
11	528270	201504030149	NESTLE-FP	Dallas Line 06 Purified Water with Minerals	#NWNA PROD FP	250	10	7	7	
	Comment: B3-30						**Flags:**			
12	528303	201504030246	CDI	201-4835 Spring Finished Product	#BAT1	250	10	7	7	
	Comment: B4-76						**Flags:**			
13	528465	201504060349	SMITH-NEPHEW	Port 1744M Smith and Nephew Curacao	#50MUNI	250	10	7	7	
	Comment: C6-29						**Flags:**			
14	Q147305	Q147305001		MS (201504030246)	Default	250	10	7	7	
	Comment: E2-30						**Flags:**			
15	Q147305	Q147305002		MSD (201504030246)	Default	250	10	7	7	
	Comment: E1-76						**Flags:**			
16	Q147305	Q147305003		MS2 (201504030149)	Default	250	10	7	7	
	Comment: D6-76						**Flags:**			
17	Q147305	Q147305004		LCS1	Default	250	10	7	7	
	Comment: D4						**Flags:**			
18	Q147305	Q147305005		LCS2	Default	250	10	7	7	
	Comment: D5						**Flags:**			
19	Q147305	Q147305006		MBLK	Default	250	10	7	7	
	Comment: D1						**Flags:**			
20	Q147305	Q147305007		MRL_CHK	Default	250	10	7	7	
	Comment: D3						**Flags:**			
21	Q147305	Q147305008		MRLLW	Default	250	10	7	7	
	Comment: D2						**Flags:**			

Run Comments:

pH Stps: 3914 Cl Stps: 111913

Batch Report

Lab Name: EEA
Instrument: Thermo Scientific Instrument
User: ISQ120827
Batch: 040815_ucmr3_ical

Method: 040815_ucmr3_ical_524_3SIM_noDPH_10-21-13
Instrument Method: 524_3SIM_noDPH_10-21-13
Cali File: 040815_ucmr3_ical.calx

Vial Pos	File Name	Conv Factor	Sample Name	Comment	Date/Time
1	040815_vv01	1	rinse	3simoivis012015	4/8/2015 13:30
2	040815_vv02	1	25ng purged bfb tune	vbfb011215; 3simoivis012015	4/8/2015 13:50
1	040815_vv03	1	rinse	3simoivis012015	4/8/2015 15:00
2	040815_vv04	1	20ppt	2uLu3llstd040815; 3simoivis012015	4/8/2015 15:24
3	040815_vv05	1	30ppt	3uLu3llstd040815; 3simoivis012015	4/8/2015 15:45
4	040815_vv06	1	50ppt	5uLu3llstd040815; 3simoivis012015	4/8/2015 16:06
5	040815_vv07	1	100ppt	10uLu3llstd040815; 3simoivis012015	4/8/2015 16:26
6	040815_vv08	1	200ppt	20uLu3llstd040815; 3simoivis012015	4/8/2015 16:47
7	040815_vv09	1	300ppt	30uLu3llstd040815; 3simoivis012015	4/8/2015 17:08
8	040815_vv10	1	400ppt	40uLu3llstd040815; 3simoivis012015	4/8/2015 17:28
9	040815_vv11	1	500ppt	50uLu3llstd040815; 3simoivis012015	4/8/2015 17:49
10	040815_vv12	1	800ppt	4uLu3std040815; 3simoivis012015	4/8/2015 18:09
11	040815_vv13	1	1000ppt	5uLu3std040815; 3simoivis012015	4/8/2015 18:30
12	040815_vv14	1	rinse	3simoivis012015	4/8/2015 18:50
13	040815_vv15	1	-CCCL_ucmr3_mrl	4uLu3mrl040815; 3simoivis012015	4/8/2015 19:11
14	040815_vv16	1	-QCS_400ppt ucmr3 qcs	40uLu3llqcs040815; 3simoivis012015	4/8/2015 19:32
15	040815_vv17	1	-MBLK_lrb	3simoivis012015	4/8/2015 19:52
16	040815_vv18	1	201504070285::1_ aqmN	@ucmr3(286); 3simoivis012015	4/8/2015 20:13
17	040815_vv19	1	201504070285::2_ aqmML	4uLu3msl040815; 3simoivis012015	4/8/2015 20:34
18	040815_vv20	1	201504070285::4_ aqmDL	4uLu3msl040815; 3simoivis012015	4/8/2015 20:54
19	040815_vv21	1	201504020080::1_ clwtr	chclf2; 3simoivis012015	4/8/2015 21:15
20	040815_vv22	1	201504030320::1_ sthcrl	@ucmr3(321); 3simoivis012015	4/8/2015 21:35
21	040815_vv23	1	201504070287::4_ cmbr	@ucmr3(288); 3simoivis012015	4/8/2015 21:56
22	040815_vv24	1	201504070289::4_ vllge	@ucmr3(290); 3simoivis012015	4/8/2015 22:16
23	040815_vv25	1	201504070334::3_ vllge	@ucmr3(335); 3simoivis012015	4/8/2015 22:37
24	040815_vv26	1	201504070359::3_ sttle	@ucmr3(360); 3simoivis012015	4/8/2015 22:57
25	040815_vv27	1	201504070297::1_ vllge	@ucmr3(300); 3simoivis012015	4/8/2015 23:18
26	040815_vv28	1	201504070229::3_ sttle	@ucmr3(230); 3simoivis012015	4/8/2015 23:39
27	040815_vv29	1	-CCCM_400ppt ucmr3	40uLu3llstd040815; 3simoivis012015	4/9/2015 0:00
28	040815_vv30	1	-MBLK_lrb	3simoivis012015	4/9/2015 0:21
29	040815_vv31	1	201504080402::1_ admrl	@ucmr3(403); 3simoivis012015	4/9/2015 0:42
30	040815_vv32	1	201504080322::4_ kngstn	@ucmr3(323); 3simoivis012015	4/9/2015 1:02
31	040815_vv33	1	201503170252::4_ wlmng	@ucmr3(254); 3simoivis012015	4/9/2015 1:23
32	040815_vv34	1	201504080236::2_ dxbry	@ucmr3(237); 3simoivis012015	4/9/2015 1:44
33	040815_vv35	1	-CCCH_800ppt ucmr3 std	4uLu3std040815; 3simoivis012015	4/9/2015 2:05

PH 831455
RH 831519
CH 1473970 001

NAFDs PH 831487
RH 831525

Injection Log

Directory: C:\MSDCHEM\1\DATA\DATA2015\040715.VOA

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0407vp001.d	0.	bake	vis111814	7 Apr 2015 10:55
2	1	0407vp002.d	0.	bake	vis111814	7 Apr 2015 11:17
3	1	0407vp003.d	0.	bake	vis111814	7 Apr 2015 11:40
4	1	0407vp004.d	0.	bake	vis111814	7 Apr 2015 12:02
5	2	0407vp005.d	0.	rinse	vis111814	7 Apr 2015 12:38
6	3	0407vp006.d	0.	rinse	vis111814	7 Apr 2015 12:59
7	4	0407vp007.d	0.	rinse	vis111814	7 Apr 2015 13:21
8	5	0407vp008.d	0.	25ng purged bfb std	vbfbstd011215; vi...	7 Apr 2015 13:43
9	1	0407vp009.d	0.	2ppb voa std	vll040115; vis111814	7 Apr 2015 14:14
10	2	0407vp010.d	0.	0.5ppb voa std	vll040115; vis111814	7 Apr 2015 14:35
11	2	0407vp010back.d	0.	-MRLCHK_0.5ppb voa std	vll040115; vis111814	7 Apr 2015 14:35
12	3	0407vp011.d	0.	0.25ppb voa std	vll040115; vis111814	7 Apr 2015 14:57
13	3	0407vp011back.d	0.	-MRLLW_0.25ppb voa std	vll040115; vis111814	7 Apr 2015 14:57
14	4	0407vp012.d	0.	10ppb voa std	vstd040115; vis11...	7 Apr 2015 15:19
15	5	0407vp013.d	0.	20ppb voa std	vstd040115; vis11...	7 Apr 2015 15:41
16	6	0407vp014.d	0.	50ppb voa std	vstd040115; vis11...	7 Apr 2015 16:03
17	7	0407vp015.d	0.	100ppb voa std	vstd040115; vis11...	7 Apr 2015 16:25
18	8	0407vp016.d	0.	rinse	vis111814	7 Apr 2015 16:46
19	9	0407vp017.d	0.	-LCS1_5ppb voa lfb	vlfb040115; vis11...	7 Apr 2015 17:08
20	10	0407vp018.d	0.	-LCS2_5ppb voa lfb	vlfb040115; vis11...	7 Apr 2015 17:30
21	11	0407vp019.d	0.	-MRLWHO_0.1ppb voa std	vll040115; vis111814	7 Apr 2015 17:52
22	12	0407vp020.d	0.	-MBLK_lrb	vis111814	7 Apr 2015 18:14
23	13	0407vp021.d	0.	201504060624 pomona::3	#voa-4; vis111814	7 Apr 2015 18:35
24	14	0407vp022.d	0.	201504060599 pomona::3	#voa-4; vis111814	7 Apr 2015 18:57
25	15	0407vp023.d	0.	201504060600 pomona::1	#voa-4; vis111814	7 Apr 2015 19:19
26	16	0407vp024.d	0.	201504060475 burbank::3	@voacbnk; vis111814	7 Apr 2015 19:40
27	17	0407vp025.d	0.	201504060476 burbank::1	@voacbnk; vis111814	7 Apr 2015 20:02
28	18	0407vp026.d	0.	201504060445 burbank::3	@voacbnk; vis111814	7 Apr 2015 20:24
29	19	0407vp027.d	0.	201504060446 burbank::2	@voacbnk; vis111814	7 Apr 2015 20:46
30	20	0407vp028.d	0.	201504060447 burbank::2	@voacbnk; vis111814	7 Apr 2015 21:08
31	21	0407vp029.d	0.	201504060448 burbank::2	@voacbnk; vis111814	7 Apr 2015 21:30
32	22	0407vp030.d	0.	201504060449 burbank::2	@voacbnk; vis111814	7 Apr 2015 21:51
33	23	0407vp031.d	0.	201504060450 burbank::3	@voacbnk; vis111814	7 Apr 2015 22:13
34	24	0407vp032.d	0.	201504060481 burbank::3	@voacbnk; vis111814	7 Apr 2015 22:35
35	25	0407vp033.d	0.	201504060482 burbank::3	@voacbnk; vis111814	7 Apr 2015 22:57
36	26	0407vp034.d	0.	201504060483 burbank::1	@voacbnk; vis111814	7 Apr 2015 23:18
37	27	0407vp035.d	0.	201504060484 burbank::1	@voacbnk; vis111814	7 Apr 2015 23:40
38	28	0407vp036.d	0.	201504020195 alameda::4	@btex-oxy; vis111814	8 Apr 2015 00:02
39	29	0407vp037.d	0.	201504020196 alameda::4	@btex-oxy; vis111814	8 Apr 2015 00:25
40	30	0407vp038.d	0.	201504020197 alameda::3	@btex-oxy; vis111814	8 Apr 2015 00:47
41	31	0407vp039.d	0.	10ppb voa std check	vstd040115; vis11...	8 Apr 2015 01:09

P# 831210
R# 831213

08 Apr 2015 09:02

/OA-GCMSV-208-A

LAB BOOK

GCMS - V

60 SHEETS • 5 x 5 QUAD
10⅛ x 7⅞ • 53-108

AVERY DENNISON

Made in USA

0 73333 53108 4

AVERY DENNISON OFFICE PRODUCTS, DIAMOND BAR, CA

3/6/15 MPB — Chiller: 9.9°C, Pos. 20

3/19/15 MPB — Prop Flow: 41.2 mL/min
Adjusted to: 40.0 mL/min

eurofins	Always check on-line for validity.	Level:
Document number: **GCMS-2395**	**Volatile Organic Compounds in Drinking Water by GC/MS**	**Standard Operating Procedure**
Old Reference: **GCMS 1**		
Version: **27B**		Organisation level: **4-Laboratory Site**
Approved by: **UAEA, UCWG, UFWH, UNCO** Andrew Eaton Effective Date	Document users: **3_EEA_M/D_GCMS_VOA**	Responsible: **3_EEA_M/D_GCMS_VOA/F_TM**

EUROFINS EATON ANALYTICAL, INC

Standard Operating Procedure

EPA Method 524.2

Confidential

01) TITLE
02) SCOPE AND APPLICATION
03) METHOD SUMMARY
04) INTERFERENCES
05) SAFETY CONSIDERATIONS
06) INSTRUMENTATION/APPARATUS
07) REAGENTS & STANDARDS
08) SAMPLE COLLECTION, PRESERVATION and HANDLING
09) CALIBRATION PROCEDURE
10) ANALYTICAL PROCEDURE
11) QUALITY CONTROL REQUIREMENTS
12) CALCULATIONS
13) METHOD PERFORMANCE
14) REFERENCES
15) DEVIATIONS FROM REFERENCED METHODOLOGY
16) METHOD DETECTION LIMIT
17) DEMONSTRATION OF CAPABILITY
18) DEFINITIONS
19) POLLUTION PREVENTION
20) WASTE MANAGEMENT
21) REVISIONS
22) ATTACHMENTS

01) TITLE

Volatiles in Drinking Water by GC/MS - (modified EPA Method 524.2)

02) SCOPE AND APPLICATION

This standard operating procedure describes the identification and quantitation of purgeable volatile organic compounds in finished drinking, raw source and ground water. The method is applicable to a wide range of organic compounds, including the four trihalomethane disinfection by-products that have sufficiently high volatility and low water solubility to be removed from water samples with purge and trap procedures. Minimum reporting limits (MRL) in this method satisfy Phase II and V reporting levels as well as California Title 22 DLRs. Since this method is based upon

a purge and trap procedure, the detection limits of compounds depend heavily on their purging efficiency and low solubility in water. See Attachment V for a list of the laboratory's MRLs of target analytes under this method.

03) METHOD SUMMARY

Volatile organic compounds are extracted (purged) from a sample by bubbling an inert gas (helium) through the aqueous sample at ambient temperature. The purged sample components are collected onto a sorbent trap. The trap is rapidly heated and backflushed with helium to desorb the volatile compounds into a gas chromatograph interfaced with a mass spectrometer detector. Compound identification is achieved by retention time match to standards on the GC and confirmed by mass spectra match to library. Quantitation of compound based on comparison to calibration. The column is temperature programmed to facilitate the separation of the method analytes that are then detected with the MS.

04) INTERFERENCES

A. Volatile contaminants in purge water and impurities in the purge or carrier gas can result in artifacts or ghost peaks. Method blanks must be analyzed to ensure the system is contamination free before analysis of samples can begin. Old traps may release volatiles such as toluene, benzene and xylenes.

B. Methylene chloride can permeate Teflon tubing. Copper or stainless steel tubing is used to avoid background concentrations of methylene chloride.

05) SAFETY CONSIDERATIONS

A. MSDSs/SDSs must be reviewed for information pertaining to the proper treatment and precautionary measure prior to handling any reagents. They are located in red binders on the second floor outside near the copier.

B. The following method analytes have been tentatively classified as known or suspected human or mammalian carcinogens: benzene, carbon tetrachloride, 1,4-dichlorobenzene, 1,2-dichloroethane, hexachlorobutadiene, 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, chloroform, 1,2-dibromoethane, tetrachloroethene, trichloroethene, and vinyl chloride. Pure and stock standards of these compounds should be handled in the hood.

C. Refer to the EEA's SOP "Hazardous Waste Management and Sample Disposal Procedures" and OSHA Standard 29 CFR 1910.1450 Occupational Exposure to Hazardous Chemicals in Laboratories; Final Rule for additional safety information.

06) INSTRUMENTATION/APPARATUS

See Attachment VIII for instrument list with operating conditions.

07) REAGENTS & STANDARDS

A. Stocks for QCS and calibration standards (CAL/LFB/CCV) are purchased from different vendors and lot numbers so that their integrity may be monitored. All stocks and working standards are refrigerated at ≤ 4ºC or at the vendor's recommended temperature, with the temperature of the refrigerator recorded twice daily. After being opened and transferred to a 1.8mL amber screw cap vial, the expiration date of all stock standards solutions is six months or the vendor expiration date, whichever comes first. The expiration date of all stock gas standards solutions is 4 weeks or the vendor expiration date, whichever comes first. Working gas standards are prepared every seven days or as needed based upon recovery in CCV and all other working standards require preparation every four weeks. For all standards, if a drop in concentration is observed in any standard, a new ampoule will be opened and if necessary the standard will be re-prepared. Vendor expiration dates on unopened ampoules are recognized; expired ampoules are discarded. When no expiration dates are available, discard stocks after one year of receipt. Internal standard and surrogate mix expire after 1year or vendor expiration date, whichever is first.

B. Refer to Attachment VII of this SOP for the preparation of working standards and internal standards.

C. Reagent Water - Purge deionized water with nitrogen gas for a minimum of 1 hour to remove volatile compounds.

D. Acidified Reagent Water - Add four drops of 1:1 HCl to 100 mL of purged deionized water. Acidified reagent water must be prepared daily. Do not use if analyzing for 2-CEVE or THM- only use reagent water.

E. N,N-diethyl-p-phenylenediamine (DPD) test kit to verify accurate sample dechlorination

08) SAMPLE COLLECTION, PRESERVATION and HANDLING

A. Samples are collected in two or more 40-ml amber vials. 25 mg ascorbic acid is added to the vial if residual chlorine is present in the sample and/or compounds with boiling point below 25ºC are to be determined. No air bubbles greater than 5mm should pass through the sample as the bottle is filled, or be trapped in the sample when the bottle is sealed. If compounds with boiling points below 25ºC are not to be determined, samples may be preserved with sodium thiosulfate instead of ascorbic acid to reduce chlorine. Subsequently, adjust the pH of all samples to < 2 at the time of sample collection, but after dechlorination with 1:1 HCl. Seal the sample vials, Teflon face down and mix for one minute. Samples which are not acidified or have pH>2 must be analyzed within 24 hours of collection time. pH of samples is verified after analysis.

B. When sampling for THM analysis only, acidification may be omitted if sodium thiosulfate is used to dechlorinate the sample. This exception to acidification does not apply if ascorbic acid is used for dechlorination.

C. The samples must be chilled to ≤6ºC but not frozen, when collected and maintained at that temperature until analysis. The holding time for an acid preserved sample is 14 days from the date of sample collection. Sampling Instructions are available from sample receiving.

09) CALIBRATION PROCEDURE

A. Continuing Calibration Verification (CCV)

1. Frequency - Analyze every 12 hours (or every 20-samples) after BFB has passed QC criteria – see Attachment IX, Ion Abundance Criteria Table for BFB tune.
2. QC criteria

    a. No analyte can exceed 30% difference when compared to the average RF or if regressed, drift may not exceed 30% of the initial calibration.
    b. If QC criteria are not met, re-analyze, prepare a new CCV standard, or analyze a new initial calibration.

3. Concentration - 10 µg/L.

B. Initial Calibration (ICAL) Frequency - ICAL is performed if CCV standard fails and corrective actions described above fail to resolve the problem. ICAL is analyzed after major instrument maintenance such as ion source cleaning. All analytes and surrogates are included in the initial calibration.
Note: For South Carolina Samples, purge a mid-range calibration standard and evaluate the standard as per section 10.2.4 of EPA method 524.2, revision 4.1. This is simply a validation of symmetric peaks with minimal tailing, and that the data system is able to recognize peaks in the assigned retention time window.

C. Calibration Curve QC criteria

1. A minimum of 3 points is required to calibrate a range of a factor of 20 in concentration. For a factor of 50, at least 4 standards and for a factor of 100 at least 5 standards. The lowest calibration standard must be at or below the reporting limit.

2. For this analysis 5 to 7 points are analyzed (0.25 µg/L to 100 µg/L).

3. The response factors for each compound must be less than or equal to 20% RSD. If this criterion is met, then the average response factors can be used for quantitation. If the % RSD is > 20, a linear or second order regression curve can be generated using GCMS data system software. Acceptance criterion for correlation coefficient (r^2) of the curve is ≥0.995. Do not extrapolate beyond the calibration range.
NOTE: For South Carolina compliance samples, only linear or average RF calibration shall be used.

D. Calibration range - 0.25 µg/L, 0.5 µg/L, 2 µg/L, 10 µg/L, 20 µg/L, 50 µg/L, and 100 µg/L. The exceptions to this range are listed below.

1. For MEK, MIBK and Acetone: 5 µg/L, 20 µg/L, 100 µg/L, 200 µg/L, 500 and 1000 µg/L
2. For Vinyl Chloride: 0.25 µg/L, 0.5µg/L, 2 µg/L, 10 µg/L, 20 µg/L, 50 and 100 µg/L
3. For m+p-Xylenes: 0.5 µg/L, 1.0 µg/L, 4.0 µg/L, 20 µg/L, 40 µg/L, 100 and 200 µg/L.

10) ANALYTICAL PROCEDURE

A. Sample Preparation

1. Withdraw the samples for analysis and allow to equilibrate to room temperature.
2. Check the presence of air bubbles (not to exceed 0.25 inches in diameter) and note the bubble size in the run logs. If air bubble size is greater than 0.25 inches, inform the supervisor by preparing a QIR. Clients should be notified of the presence of air bubbles beyond 6mm from their samples.

B. Before Startup

1. Each analyst should be familiar with the instrument operating conditions including:

   a. Purge and trap parameters
   b. MS parameters
   c. Acquisition (scan)
   d. GC parameters

2. The analyst is responsible for documenting instrument problems/anomalies in the appropriate instrument logbook.
3. The air/water spectrum is checked after major instrument maintenance requiring MS venting. In a leak tight system, the air to water ratio will be almost equal; 18 pk > 28/32 pk.

4. Calibrate the mass spectrometer with Perfluorotributylamine (FC43, cal gas) to check mass assignment after major maintenance (i.e.; ionizer cleaning).

C. Bromofluorobenzene Tune (BFB)

1. Inject or purge 25 ng or less of BFB.
2. The BFB must meet the ion abundance criteria (see Attachment IX, Ion Abundance Criteria Table)

before proceeding.
3. The BFB (tune) is analyzed every 12 hours.

D. Laboratory Reagent Blank (LRB)

1. After an acceptable BFB has been achieved, and before analyzing samples, analyze an LRB by filling a 40-mL vial without headspace with nitrogen-purged, acidified DI water.
2. Addition of internal standards and surrogate will be performed by the autosampler.
3. The autosampler will dispense 1 µL of 25-µg/mL volatiles internal standard/surrogate solution to each 5-ml aliquot.
4. Acidify with HCL, unless analyzing 2-chloroethyl vinyl ether.

E. MRL Check (0.5 µg/L)

1. Run a MRL check once every analysis day.
2. Spike 1 µL of 50 µg/mL standard into a 100 ml volumetric flask filled with acidified reagent water for a 0.5 µg/L standard.
3. Invert 3 times before filling a 40-ml vial without headspace.
4. Acidify with HCL, unless analyzing 2-chloroethyl vinyl ether.

F. Laboratory Fortified Blank/Laboratory Control Sample (LFB/LCS, 5 µg/L)

1. Prepare LFB/LCS as per Attachment VII.
2. Invert 3 times before filling a 40 mL vial without headspace.
3. This standard is equivalent to a QCS (Quality Control Sample). The method requires quarterly QCS analysis, but the lab analyzes a QCS with every batch.
4. Acidify with HCL, unless analyzing 2-chloroethyl vinyl ether.

G. Continuing Calibration Standards

1. Prepare CCV as per Attachment VII. CCVs are equivalent to LFB in preparation.
2. Invert 3 times before filling a 40 mL vial without headspace.
3. Analyze a Continuing Calibration Verification (CCV) at the beginning and end of each tune.
4. The CCV must alternate concentrations during the run, so for an opening CCV at 10ppb, a closing CCV must be at a different concentration (i.e. 20ppb).
5. Acidify with HCL, unless analyzing 2-chloroethyl vinyl ether.

H. Sample analysis

1. Let the samples warm to room temperature.
2. Place samples to be analyzed in sequential order inside the auto sampler.
3. Once the samples are analyzed, measure the sample pH for all samples with pH paper. Record the value in the run log.
4. Unless otherwise specified, samples for drinking water analysis should be analyzed without dilution first. Subsequent dilutions are made if compounds are detected above the calibration range. Results from the diluted run will be reported for only those compounds detected outside the calibration range in the initial, undiluted run. Results for the rest of the analytes are reported from the undiluted run.

I. Field Reagent Blank/Trip Blank (FRB)

1. Duplicate FRB's must be handled along with each sample set, which is composed of the sample collected from the same general sample site at approximately the same time.

2. At the laboratory, fill field blank sample bottles with reagent water and sample preservatives, seal, and ship to the sampling site along with empty sample bottles and back to the laboratory with filled sample bottles.

3. Wherever a set of samples is shipped and stored it is accompanied by appropriate blanks. FRB's must remain hermetically sealed until analysis.

4. Always analyze the trip blank unless specified by the client to analyze only if hits in samples. If the sample is only being analyzed for THMs a trip blank is not required. See Attachment XII for EPA Memo regarding this issue.

11) QUALITY CONTROL REQUIREMENTS

A. The instrument tune using BFB must be verified every 12 hours. All acquisitions must be STARTED before the 12-hour tune expires. Samples analyzed past the 12 hour tune must be re-analyzed.

B. BFB must pass the criteria listed in Attachment IX, Ion Abundance Criteria Table. If not, it must be reanalyzed and/or the mass spectrometer must be retuned. Ionizer may need to be cleaned, before criteria can be met.

C. Laboratory Reagent Blanks (LRB) shall be performed at a frequency of one per 12 hour shift or one per batch of twenty samples per matrix type per sample extraction or preparation method. The results of this analysis shall be one of the QC measures to be used to assess batch acceptance. The source of contamination must be investigated and measures taken to correct, minimize or eliminate the problem.

D. LRB must not contain any analytes at or above the MRL; otherwise, reanalyze the LRB. If data from blanks with constituents >MRL must be reported, flag the sample data with a "B" where samples have hits > MRL. Blank subtraction is not performed. LRB should be analyzed after a sample containing high concentrations of volatile contaminants.

E. Surrogates- Surrogate compounds must be added to all samples, standards, and blanks, for all organic chromatography methods except when the matrix precludes its use or when a surrogate is not available. Poor surrogate recovery may indicate a problem with the sample composition and shall be reported to the client whose sample produced the poor recovery. Acceptable surrogate recovery limits are 70-130%. See Attachment V for a list of surrogates used.

F. Sample result must be quantitated from the initial instrument calibration and may not be quantitated from any continuing calibration verification. If to be reported, results of samples not bracketed by initial instrument calibration standards (within calibration range) must be reported as having less certainty and denoted with a J flag (below calibration range but above MDL) or E flag (above calibration range).

G. All initial instrument calibrations must be verified with a standard obtained from a second source and traceable to a national standard, when available. This is the Quality Control Sample (QCS). The relative percent difference should not exceed 30% or the concentration measured using the calibration curve must be within 30% of the true value of the concentration in the standard.

H. If the QCS results are outside established acceptance criteria corrective actions must be performed. Data associated with an unacceptable QCS shall not be reported.

I. Calibration standards must include concentrations at or below the regulatory limit/decision level, if these limits/levels are known by the laboratory, unless these concentrations are below the laboratory's demonstrated detection limits.

J. If the continuing calibration verification (CCV) results obtained are outside established acceptance criteria (the RF for each analyte of concern and surrogate must be within ±30% of the mean value measured in the initial calibration), corrective actions must be performed. If routine corrective action procedures fail to produce a second consecutive (immediate) calibration verification within acceptance criteria, then either the laboratory has to demonstrate performance after corrective action with two consecutive successful calibration verifications, or a new initial instrument calibration must be performed. If the laboratory has not demonstrated acceptable performance, sample analyses shall not occur until a new initial calibration curve is established and verified. However, sample data associated with unacceptable calibration verification may be reported as qualified data under the following special conditions.

K. When the acceptance criteria for the continuing calibration verification are exceeded high, i.e., high bias, and there are associated samples that are non-detects, then those non-detects may be reported. Otherwise the samples affected by the unacceptable calibration verification shall be reanalyzed Remedial action must be taken which may require recalibration.

L. When the acceptance criteria for the continuing calibration verification are exceeded low, i.e., low bias, those sample results may be reported if they exceed a maximum regulatory limit/decision level. Otherwise the samples affected by the unacceptable verification shall be reanalyzed. Remedial action must be taken which may require recalibration..

M. For **all** analytical runs, a closing CCV is analyzed, at a different concentration than the opening CCV, and evaluated with the basic acceptance limits of recoveries at 70-130% of the true value. For the closing CCV, data is accumulated to evaluate the control chart limits of this closing CCV over a long period of time, to determine if some compounds are better reflected by statistical limits.

N. Laboratory Fortified Blank (LFB)--Shall be analyzed at a minimum of one per 12 hour shift or one per batch of twenty or less samples per matrix type per sample extraction. All analytes are to be spiked in the LFB. LFB must meet 70-130% recoveries. LFB replicate will be analyzed at least quarterly to determine the precision of the laboratory. The criteria for LFB replicate is based on control charts that are generated from historical data using a minimum of 20 data points. Initially, the criteria is set at <20%RPD until enough data points become available.

O. A Laboratory Fortified Matrix (LFM) is not required unless an abrupt change in internal standard and/or surrogate recovery data (see section P) indicates a matrix effect. In this case, analyze the LFM for that matrix and flag the data. An LFM/LFMD is also analyzed when required or requested by clients.

P. The retention times of the IS in a sample compared to those in the daily standard must not change by more than three standard deviations of the mean retention time of the compound in the calibration mixture.

Q. The areas of the IS in a sample must not decrease by more than 30% from the continuing calibration standard or 50% from the 10 µg/L standard in the most recent initial calibration curve.

R. If an analyte is above the calibration range, dilute the sample to achieve a concentration in the middle or upper half of the calibration range, as precision is better in the upper half of the range.

S. Mass spectra for compounds at or above the MRL must be included with the sample data.

T. The completed data package must be reviewed by another peer analyst before data is validated in the LIM system..

U. A target analyte is positively identified when two criteria are satisfied:

1. The sample mass spectrum matches the reference spectrum in the user-created database. All ions present >10% relative abundance in the sample spectrum should be present in the standard spectrum and should agree within 20%.
2. The GC retention time of the sample component should be within three standard deviations of the mean retention time of the compound in the calibration mixture. Structural isomers such as xylenes, and dichlorobenzenes must be confirmed by their different relative retention times.

V. Contingencies for handling out of control data.

1. Submit a Quality Investigation Report (QIR) with any data associated with failed batch or instrument QC.
2. Include a comment describing the reason for the failure and why the data is being submitted in the comment section during data entry.
3. Details regarding use of the QIR can be found in EEA's Quality Manual.
4. See EEA's Quality Manual for a list of data qualifiers and their definitions.

W. See Attachment VI, "QC Summary Table" for QC requirements for this method.

12) CALCULATIONS

A. See Attachment X for calculations.

B. See Non-Method 23, Calibration SOP

13) METHOD PERFORMANCE

A. Attachment I, Documentation of Demonstration of Precision and Accuracy

B. Attachment II, Documentation of Method Detection Limit Study

C. The above attachments are only to demonstrate method performance. A more recent study is kept on file and is available for review upon request.

14) REFERENCES

A. EPA Method 524.2, Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry, Revision 4.1 August 1995 (Supplement III)

B. Technical Notes on Drinking Water, October 1994

C. SW846, Method 5030B, Purge and Trap for Aqueous Samples and Method 8260B, Volatile Organic Compounds by GCMS, Revision 2, December, 1996.

15) DEVIATIONS FROM REFERENCED METHODOLOGY

A. Method specified Internal Standard/Surrogates

1. Fluorobenzene (internal standard)
2. 1,2-Dichlorobenzene-d4 (surrogate)
3. 4-Bromofluorobenzene (surrogate)

B. Internal standard/surrogate concentration at 5 µg/L for 5 ml purge

1. Fluorobenzene (internal standard)
2. 1,2-Dichlorobenzene-d4(internal standard)
3. 1,2-Dichlorobutane(internal standard)
4. 1,2-Dichloroethane-d4 (surrogate)

5. Toluene-d8 (surrogate)
6. 4-Bromofluorobenzene (surrogate)

C. Desorb time - Method states in section 11.2.1 :"Then simultaneously start the flow of desorption gas at a flow rate suitable for the column being used for about four minutes". Clarification from EPA Cincinnati, Ohio office: "As per your request for the definition of "about 4 minutes" as the desorb time in EPA method 524.2, EPA considers about to be +/-15% , so the minimum allowable desorb time would be 3.4 minutes to still be in compliance with the method. "
EEA currently is desorbing for 3.5 min.to lessen the amount of water getting onto the GCMS systems.

16) METHOD DETECTION LIMIT

A. Method Detection Limits (MDLs) will be determined as per 40CFR, part 136, Appendix B. Essentially, this requires that an estimate of the detection limit be determined for each target analyte based on analytical experience or published references. Seven replicates of DI water must then be spiked at this estimated MDL for each method analyte carried through the entire procedure. The MDL is then calculated as the standard deviation of the 7 replicates multiplied by the statistical "t-value" associated with the actual number of replicates analyzed assuming N-1 degrees of freedom (for exactly 7 replicates, the t-value is 3.143; 40 CFR, Part 136). It is recommended that the extractions/digestions/analyses be performed over a period of at least three days to provide a more reasonable MDL.

B. An MDL study must be repeated for each new analyst trained in the method, when there is a change in the instrumentation that is used for the analysis in question, and when there is a significant change in the instrument response or background measurement.

C. Select a fortifying concentration that provides an instrument signal 2 to 5 times above the noise level.

D. The spike concentration must not exceed 10 times the calculated MDL and must be greater then the calculated MDL or the process must be repeated at a lower spike concentration.

E. If there is a significant blank level, the spike level for the MDL determination must be at least three times greater than the blank concentration.

F. The MRL should be > the calculated MDL

G. All the replicates that are analyzed should be used to calculate the MDL unless there is a valid reason (Example: QC failure or missed extract holding time).

H. If MRL level is the same as the spiking level, the calculated MDL needs to be within ± 50% (guideline only) of the spiking level. MRL check standard need to be ± 50% of the true value.

I. If more than 10% of the analytes fail the above criteria, the study needs to be repeated. The study need not be repeated if there is less than 10% failure The analyst has to ensure that the failed analytes pass in the following study.

17) DEMONSTRATION OF CAPABILITY

A. A DOC is performed for each analyst and instrument. The DOC for each analyst includes a demonstration of the ability to achieve a low background, the precision and accuracy required by the method, the method detection limit (MDL) in accordance with procedure in 40 CFR 136, Appendix B and satisfactory performance on an unknown sample as on-going proficiency test result are also filed.

B. The DOC is repeated when there is a change in analyst, test method or instrument.

C. All initial demonstrations of capability and method certification shall be documented through the use of the certification statement. A copy of the certification should be retained in the personnel records of each affected employee.

D. Initial demonstration of method performance is completed each time there is a significant change in instrument type, personnel, or test method.

E. Continuing demonstration of method performance may be one of the following: acceptable performance of a blind sample, another initial DOC, at least 4 consecutive laboratory control samples with acceptable levels of precision and accuracy, and a documented process of analyst review using QC samples.

F. The QC sample used for the DOC analysis is obtained from an outside source. If an external vendor is not available, the laboratory prepares the QC sample independent of the instrument calibration standard.

G. The QC sample concentration prepared for the DOC is 5.0µg/L. Four aliquots of the sample are analyzed concurrently (same day) or over a period of days. Average recovery and standard deviation for each parameter of interest are calculated in the units used for reporting to clients. The resulting average recovery and standard deviation must meet the acceptance criteria for the method.

H. When it is not possible to determine mean and standard deviations, such as for presence/absence and logarithmic values, the laboratory assesses performance against established and documented criteria. If there is no mandatory criteria in the method, either reference or laboratory generated limits are used.

I. If standards cannot be prepared, QC samples or PE samples obtained from NIST or other approved PT providers are used for the DOC. The laboratory retains all associated supporting data necessary to reproduce analytical results summarized in the DOC certification statement.

J. Analysis of actual samples is not done until all parameters of interest for the DOC meet acceptance criteria. If one or more of the test parameters do not meet the acceptance criteria, the problem is corrected, followed by repeated analysis of the four aliquots for those that failed to meet criteria. If the repeat analyses fail acceptance criteria the laboratory investigates, corrects the problem and repeats the test for all parameters.

K. Perform IDCs using the following procedure:

1. Following procedural calibration standard analysis and subsequent instrument calibration, analyze a set of at least four IDC samples (LFBs spiked with a second source) and calculate the mean percent recovery (R) and the relative standard deviation of this recovery (RSD).
2. For each analyte, the mean recovery value must fall within the range of 80-120% and the RSD must not exceed 20%.
3. For those compounds that meet these criteria, performance is considered acceptable, and sample analysis may begin.
4. For those compounds that fail these criteria, this procedure must be repeated until satisfactory performance has been demonstrated.

18) DEFINITIONS

Refer to EEA's Quality Manual for a complete list of terms and definitions.

19) POLLUTION PREVENTION

A. Because this analysis is performed to meet United States Government and/or local regulatory requirements, reduction in volume of samples, reagents or standards is not possible. Practice pollution prevention by implementing the suggestions listed below and by carefully following the instructions in the Waste Management Section of this document.

B. Reduce disposal costs by ordering quantities of reagents and standards that will be approximately consumed by the expiration date.

C. Practice spill prevention by storing chemicals in secondary containment. Do not store incompatible chemicals in close proximity.

D. Reuse solvents for the first step in glassware cleaning if possible.

20) WASTE MANAGEMENT

A. It is the responsibility of the laboratory to determine whether its wastes are hazardous and to assure safe handling and disposal. The laboratory works closely with the Treatment, Storage, and Disposal Facility to ensure that certain wastes are recycled where possible, that the source of waste is reduced to the lowest possible level and that stringent land disposal restrictions are followed.

B. Refer to the following documents for additional information regarding waste management:

1. Hazardous Waste Management and Sample Disposal Procedures
2. Resource Conservation and Recovery Act (RCRA)-Title 40 of the Code of Federal Regulations, Parts 260 through 270 (40 CFR 260-270)
3. California Hazardous Waste Control Law (HWCL)-CCR Title 22 where 40 CFR was duplicated into CCR Title 22, Parts 66260-66270.

21) REVISIONS

A. Revision 23.0 (11/13/12)

1. Cover Page – updated the titles of signatories with new titles to comply with the 2009 TNI standard.
2. Several sections –
a. Updated the name from MWH Laboratories to Eurofins Eaton Analytical or EEA due to the change of ownership.
b. Updated the name of Quality Assurance Manual to Quality Manual to comply with the 2009 TNI standard.
3. Section XII – added the statement "See Non-Method 23, Calibration SOP"
4. Section XVII – added the Demonstration of Capability Section and renumbered the subsequent sections.

B. Revision 24.0 (04/01/13)

1. Several sections – Updated the name from MWH Laboratories to Eurofins Eaton Analytical or EEA due to the change of ownership.
2. Section X.E: Added "Run a MRL check once every analysis day."
3. Section XV.C: Removed "To prevent damage of instruments due to foamy waste water and some drinking water samples, MWH Laboratories is purging 5mL sample in a 25mL purge vessel in GCMSH, thus not meeting method 524.2, Section 6.2.1 requiring < 15mL of gaseous volume above the sample. Acceptable MDL, DOC, and acceptable LFB/LFM precision and accuracy data were generated from the current laboratory setup."
4. Section XVII.K.2: Updated recovery and RSD limits from "70-130% and rsd <30%" to "80-

120% and rsd <20%."
5. Attachment VI: Added MRL check to table and included frequency of once every analysis day.
6. Attachment VIII.A.Purge volume: Removed "(See Deviation, Section XV.E.)."
7. Attachment VIII.A.Purge & Trap Conditions: Changed desorb at 255°C from "4.0 minutes" to "3.5 minutes."
8. Attachment VIII.B: Changed autosampler to "OI 4551A."
9. Attachment VIII.B: Removed "(See Deviation, Section XV.D.)."
10. Attachment VIII.C: Changed Desorb at 190ºC from "3.2 minutes" to "3.5 minutes."
11. Attachment VIII.D: Added O.I. 4551A autosampler.
12. Attachment VIII.D: Changed Purge vessel volume from "25mL" to "5mL."
13. Attachment VIII.D: Removed "(See Deviation, Section XV.D.)."
14. Attachment VIII.D: Changed desorb at 190 ºC time from "4.0 minutes" to "3.5minutes."
15. Attachment VIII.E: Added O.I. 4551A autosampler
16. Attachment VIII.E: Changed desorb at 190 ºC time from "4.0 minutes" to "3.5minutes."
17. Attachment VIII.E: Removed "(See Deviation, Section XV.D.)

C. Revision 25.0 (08/23/13)

1. Removed "Modified" from title
2. Section X.G - Changed Archon to auto sampler
3. Attachment VIII – changed 40 ºC to ambient temperature for GCMSH
4. Attachment VIII – changed flow rate from 30-40ml/min to 40ml/min for all instruments.
5. Section XV – Removed Method specifies running a mid-level calibration standard first, while lab analyzes all standards according to sequence. Added the definition of the word ABOUT in section 11.2.1 for desorb time from the EPA.
6. Section XI – K and L added Remedial action must be taken which may require recalibration. Removed after a new calibration curve has been established, evaluated and accepted.
7. Section XI S changed entry- to -is validated in the LIM system..
8. Added specifications of purge volume to section VI
9. Updated Section XI, B. to note purging a mid range calibration standard to evaluate instrument performance.

D. Revision 26.0 (07/04/14, 10/13/14, 11/12/14)

1. Converted SOP to D4 format

(10/13/14)

1. Section 06: Removed "For instrumentation that uses 5mL of sample volume, a 5mL sparger must be used. For instrumentation that uses a 25mL sample volume, a 25mL sparger must be used."
2. Section 07.A: Added "or at the vendor's recommended temperature" in regards to the temperature at which stock solutions are stored. Added "The expiration date of all stock gas standards solutions is 4 weeks or the vendor expiration date, whichever comes first." Added "every seven days or" in regards to the preparation of working gas standards.
3. Section 08: Replaced "pea sized" with 0.25 inches.
4. Section 10.A: Replaced "pea sized" or "5-6mm" with 0.25 inches.
5. Section 10.C: Updated formatting.
6. Section 10.D.2: Removed "Archon" brand name from description of autosampler.
7. Section 11.U.3: Changed "Comprehensive Quality Assurance Manual, Section 15.0, Figures 15-2 and 15-3" to "Quality Manual."
8. Section 18: Changed "Comprehensive Quality Assurance Manual" to "Quality Manual."

9. Attachment III: Removed, no longer order Ultra Scientific Custom Standard. Renumbered subsequent attachments.
10. Attachment VI: Replaced with updated version of Preparation of Working Standards.
11. Section 22: Updated Attachment List.

(11/12/14)
1. Section 5.A - Changed "MSDS" to "MSDS/SDS."
2. Section 17.E - updated to "Continuing demonstration of method performance may be one of the following: acceptable performance of a blind sample, another initial DOC, at least 4 consecutive laboratory control samples with acceptable levels of precision and accuracy, and a documented process of analyst review using QC samples."
3. Section 17.G - changed QC Sample concentration prepared to 5.0µg/L.
4. Removed 3 copies of outdated attachments and replaced with 1 final copy.

E. Revision 26.A (01/20/15)

Section 10.C - Changed title from "Laboratory Reagent Blank (LRB)" to "Bromofluorobenzene Tune (BFB)."

F. Revision 27.A (4/14/15)

1. Section 10.D, added language to LRB that the LRB is run after a BFB, and before samples (not directly after BFB).
2. Section 10.G, inserted this section to note that CCV is equivalent to LFB, and that the CCV is run as an opening and closing standard, at different concentrations.
3. Inserted Section 11.M. to note that the closing CCV is required in all analytical runs, and must pass, and that control limits are being evaluated for the closing CCV.

22) ATTACHMENTS

A. Attachment I, Documentation of Demonstration of Precision and Accuracy

B. Attachment II, Documentation of Method Detection Limit Study

C. Attachment III, Custom Volatile Standard (Ultra Scientific Part No. CUS-2806)

D. Attachment IV, Typical Chromatogram

E. Attachment V, List of Quantitation Ion & MRLs

F. Attachment VI, QC Summary Table (EPA 524.2 method)

G. Attachment VII, Preparation of Working Standard Solutions

H. Attachment VIII, Instrument List with Operating Conditions

I. Attachment IX, Ion Abundance Criteria Table for Bromofluorobenzene Tune

J. Attachment X, Calculations

K. Attachment XI, List of Internal Standards and Surrogates

L. Attachment XII, THM Field Blank Memo

M. Attachment XIII, Desorb 4 Minute Variance Allowance from EPA

Attachment:
GCMS_01_524_2_Rev_27_10_23_14_attachments_final.pdf

End of document

Version history

Version	Approval	Revision information
26	17.NOV.2014	
27	29.JAN.2015	
27B		

Reference Method: SM4500Cl

Analysis Date: 4/7/15 Initials: NJR
Validation Date: 04/09/15 Initials: AYH

Reagent:
Glycine 10%: R# 203389
DPD Chlorine: R# 203408
DPD Total: R# 203586
DPD Free: R# 203629
Chlorox: R# 500311

Test/Run#
Chloramines: 831260
Chloramines Low: 831262
Chlorine Dioxide: 830773
Free Chlorine: 831274
Free Chlorine Low: 831277
Total Chlorine: 831280
Total Chlorine Low: 831284

Meter Calibration

	Free Cl (mg/L)	Total Cl (mg/L)	ClO_2 (mg/L)	Comments
STD 1 (blank)	0.00	0.00	0.00	
STD 2	0.22	0.22	0.48	
STD 3	0.89	0.89	2.14	
STD 4	1.63	1.63	3.97	

Accuracy Check when Chlorine Dioxide Assessment is Required

	Free Cl (mg/L)	ClO_2 (mg/L)	Comments
STD B* with Glycine	0.05	0.07	
STD B* without Glycine	1.72	4.16	

*Std B: Dilute 5ml Chlorox to 100ml w/DI H2O. Use 0.1ml of this solution and dilute to 200ml w/DI H2O. Make Fresh Daily

	Sample Number	Client	Sample ID	Free Cl (mg/L)	Total Cl (mg/L)	ClO_2 (mg/L)	Comments
	MBLANK			0.00	0.00	0.00	
	MRL_LOW (0.05, 0.05,0.12 mg/L)			0.06	0.06	0.12	Acceptance Range 50%-150%
	MRL_CHK (0.1, 0.1, 0.24 mg/L			0.12	0.12	0.24	Acceptance Range 50%-150%
1	201503020348	CDI	353 139 Mun Sour	1.54	1.81/1.95 5x	0.06	
2	201503130087	Pepsi Mea	Treated Water	0.02	0.03	0.04	
3	201504030039	Clear Mountain	FP 3B0 16301-2	0.03	0.02	0.03	
4	201504030246	CDI	201 4835 Springs Fy	0.01	0.02	0.03	
5	201504070009	Nestle FP	Dallas L2 Pur. W/Min	0.01	0.01	0.07	
6	201504070072	Absopure	3B0 1749 Winn Dixie	0.03	0.03	0.04	
7	201504070079	Nestle Sour	Auburn Mun.	0.47	1.91/2.16 5x	0.08	
8	201504070115	Nestle FP	Poland Spring L8 Sp.	0.02	0.01	0.04	
9	201504070117	Nestle FP	Poland Spring L9	0.01	0.02	0.04	
10	201504060479	CDM Glendale	A90043033 P1A28	—	0.02	—	
LCS	LCS1 (1.0, 1.0, 2.4 mg/L)			0.94	0.99	2.22	Acceptance Range 85%-115%
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
LCS	LCS2 (1.0, 1.0, 2.4 mg/L)			0.97	1.02	2.28	Acceptance Range 85%-115%

Additional Comments:

12 Sep 02; Form Rev 3
BATCH NUMBER:

Eurofins Eaton Analytrical
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

SETTLEABLE SOLIDS
SM2540F

Analysis Date:	3/25/2015
Analysis Time:	0:40
Analysis Date End:	3/26/2015
Analyst:	JSC
Reviewed By:	TBW
LIMS Check By:	04/03/15

Was QC Criteria Met: Y / N	Y
Was QIR Needed: Y / N	N

R# 828754

Version 2 06/27/13

Control # FO-WC-26

Pour Sample Into Container.
Wait 45 minutes.
Stir gently to remove solids adhering to sides.
Wait 15 minutes and take the reading.

Reporting Limit 0.1 ml/L/hour

Run #	Sample Number	Client Name	Sample ID	Date/Time Collected	Sample Vol. (ml)	SS sample (ml/L / hour)	Sample Start Time :	Sample End Time :	Comment	Flag	Imhoff cone
Blk	Q146771001		MBLK	N/A	1L	ND	0:40	1:40			Imhoff cone
1	201503240268	STETSON	Plant IX DUAL Barrier	3/24/15 10:40	1L	ND	0:41	1:41			D
2											B
3											
4											
5											
6											
7											
8											
9											
10											
11											
Dup	*NOT*	ENOUGH	SAMPLE	FOR	DUP.				RPD < 20%		
12											
13											
14											
15											
16											
17											
18											
19											
20											
Dup									RPD < 20%		

% RPD = [S1-S2] * 100 / (S1 + S2) / 2

S1 = READING OF 1ST SAMPLE
S2 = READING OF 2ND SAMPLE

Eurofins Eaton Analytical
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

SETTLEABLE SOLIDS
SM2540F

Analysis Date:	
Analysis Time:	
Analysis Date End:	
Analyst:	
Reviewed By:	
LIMS Check By:	

Was QC Criteria Met: Y / N	
Was QIR Needed: Y / N	

Version 3 03/26/15

Control # FO-WC-26

Pour Sample Into Container.
Wait 45 minutes.
Stir gently to remove solids adhering to sides.
Wait 15 minutes and take the reading.

Reporting Limit 0.1 ml/L/hour

Run #	Cone #	Sample Number	Client Name	Sample ID	Date/Time Collected	Sample Vol. (ml)	SS sample (ml/L / hour)	Sample Start Time :	Sample End Time :	Comment	Flag
Blk											
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11										RPD < 20%	
Dup		***NOT***	**ENOUGH**	**SAMPLE**	**FOR**	**DUP.**					
12											
13											
14											
15											
16											
17											
18											
19											
20										RPD < 20%	
Dup											

% RPD = [S1-S2] * 100
(S1 + S2) / 2

S1 = READING OF 1ST SAMPLE
S2 = READING OF 2ND SAMPLE

eurofins | Eaton Analytical

Attendance Sheet

Training Name: Data Review Training (Inorganics)
Training Length: 1.0 hours 2.50 4/13/15
Trainer: Robert Dean, ~~Nilda Cox~~, Lisa Ramirez
Training Location: Presidents Room
Date & Time: 4/13/15, 13:00

No.	Printed Name	Signature
1.	Adam Z Smith	
2.	Maria Carla Coervaja	
3.	Maria Anna Enriquez	
4.	Sophia Khan	
5.	Marica Garcia	
6.	Mike Herrera	
7.	Yuan-Chien Hu	
8.	Betty Wang	
9.	Jorge Martinez	
10.	NINA SICAM	
11.	ROBERT FIKEROS	
12.	NELSON MORALES	
13.	Nancy Rodriguez	
14.	Brian Wollard	
15.	Dat Nguyen	
16.	Chris Park	
17.	Lisa M Ramirez	Lisa M. Ramirez
18.		
19.		
20.		

EPA 200.8 Trace Metals by ICP-MS Checklist

Analyst _____ **Analysis Date** _____

Sample

___All samples analyzed within 6 months of holding time
___Concentrations above 90% of the high standard not reported
___ Over range samples marked for dilution and rerun
___Samples have pH <2
___No more than 20 samples per batch
___Internal standard 60-125%

Instrument QC

___***Tune Pass- if fail, run cannot be reported***
___Correlation coefficient 0.995 or greater
___CCV, LINEARITY 90-110%
___Carbon Sulfur Check <1/2 mrl for Cu, Cr, Zn
___CCB after every CCV, & <1/2 mrl
___ICV recovery 95-105%
___QCS, (non-calibration source) 90-110%

Batch QC

___Mblank <1/2mrl
___MRL recovery 50-150%
___Filtered blank analyzed for dissolved samples. Element conc. must be < than 1/2mrl

MS/D & LCS/D

___LCS/D recovery 85-115%
___MS/D recovery 70-130%
___MS/D RPD, LCS/D RPD does not exceed 20%
___Frequency 1 MS/D per 10 samples, 2 LCS/D per batch of 20 or less

MISC

___QIR needed for failed QC
___As>5ppb, Cr>5ppm, Tl>1ppb, Se>25ppb retested. Needs dilution/confirmation

Comments

_____

_____

_____

_____

eurofins | Eaton Analytical

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

This report may not be reproduced, except in full, without written approval from EEA.

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: City of [redacted]

Attn: [redacted]
[redacted]
[redacted], VA [redacted]

Copies to: None

Report: 335808
Priority: Standard Written
Status: Final
PWS ID: VA[redacted]
Sampling Point ID: RS002
Facility ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3202225	RS-002	1623	03/10/15 15:30	Client	03/11/15 10:30
3202226MS	RS-002	1623	03/10/15 15:30	Client	03/11/15 10:30

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Traci Chlebowski at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

VA Laboratory ID Number: 00127

CS Manager

Authorized Signature | Title | 04/03/2015 Date

Client Name: City of [redacted]
Report #: 335808

Client Name: City of [redacted]

Report #: 335808

Sampling Point: RS-002

PWS ID: VA[redacted]

Microbiology						
Analyte	**Method**	**MRL†**	**Result**	**Units**	**Analyzed Date**	**EEA ID #**
Cryptosporidium	**1623**	**0.095**	**< 0.095**	**oocysts/L**	**03/17/15 10:08**	**3202225**
Number of oocysts counted	1623	N/A	0	oocysts	03/17/15 10:08	3202225
Sample volume filtered	1623	N/A	10.50	L	03/17/15 10:08	3202225
% of filtered volume examined	1623	N/A	100	%	03/17/15 10:08	3202225
Number of filters used	1623	N/A	1	N/A	03/17/15 10:08	3202225
Packed pellet volume	1623	N/A	0.4	ml	03/17/15 10:08	3202225
Volume of resuspended concentrate	1623	N/A	7.4	ml	03/17/15 10:08	3202225
Volume of resuspension processed	1623	N/A	7.4	ml	03/17/15 10:08	3202225
Giardia	1623	0.095	< 0.095	cysts/L	03/17/15 10:08	3202225

For method 1623: The calculated MRL value is dependant on the volume filtered and the volume analyzed for each sample.

Microbiology - Matrix Spike						
Analyte	**Method**	**MRL†**	**Result**	**Units**	**Analyzed Date**	**EEA ID #**
Cryptosporidium	1623	0.100	75	% Recovery	03/17/15 10:32	3202226
Number of oocysts counted	1623	N/A	74	oocysts	03/17/15 10:32	3202226
Sample volume filtered	1623	N/A	10.75	L	03/17/15 10:32	3202226
% of filtered volume examined	1623	N/A	100	%	03/17/15 10:32	3202226
Number of filters used	1623	N/A	1	N/A	03/17/15 10:32	3202226
Packed pellet volume	1623	N/A	0.5	ml	03/17/15 10:32	3202226
Volume of resuspended concentrate	1623	N/A	6.4	ml	03/17/15 10:32	3202226
Volume of resuspension processed	1623	N/A	6.4	ml	03/17/15 10:32	3202226
Sample volume spiked (L)	1623	N/A	10.75	L	03/17/15 10:32	3202226
Number of Cryptosporidium spiked	1623	N/A	99	oocysts	03/17/15 10:32	3202226
Giardia	1623	0.100	49	% Recovery	03/17/15 10:32	3202226

For method 1623: The calculated MRL value is dependant on the volume filtered and the volume analyzed for each sample.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: City of [redacted]

Attn: [redacted]
[redacted]
[redacted], VA [redacted]

Copies to: None

Report: 335808
Priority: Standard Written
Status: Final
PWS ID: VA[redacted]
Sampling Point ID: RS001
Facility ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3202227	RS-001	1623	03/10/15 14:01	Client	03/11/15 10:30
3202228MS	RS-001	1623	03/10/15 14:10	Client	03/11/15 10:30

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Traci Chlebowski at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

VA Laboratory ID Number: 00127

CS Manager

Authorized Signature | Title | 04/03/2015 Date

Client Name: City of [redacted]
Report #: 335808

Client Name: City of [redacted]

Report #: 335808

Sampling Point: RS-001

PWS ID: VA[redacted]

Microbiology						
Analyte	**Method**	**MRL†**	**Result**	**Units**	**Analyzed Date**	**EEA ID #**
Cryptosporidium	**1623**	**0.095**	**0.095**	**oocysts/L**	**03/17/15 10:56**	**3202227**
Number of oocysts counted	1623	N/A	1	oocysts	03/17/15 10:56	3202227
Sample volume filtered	1623	N/A	10.50	L	03/17/15 10:56	3202227
% of filtered volume examined	1623	N/A	100	%	03/17/15 10:56	3202227
Number of filters used	1623	N/A	1	N/A	03/17/15 10:56	3202227
Packed pellet volume	1623	N/A	0.1	ml	03/17/15 10:56	3202227
Volume of resuspended concentrate	1623	N/A	7.0	ml	03/17/15 10:56	3202227
Volume of resuspension processed	1623	N/A	7.0	ml	03/17/15 10:56	3202227
Giardia	1623	0.095	< 0.095	cysts/L	03/17/15 10:56	3202227

For method 1623: The calculated MRL value is dependant on the volume filtered and the volume analyzed for each sample.

Microbiology - Matrix Spike						
Analyte	**Method**	**MRL†**	**Result**	**Units**	**Analyzed Date**	**EEA ID #**
Cryptosporidium	1623	0.100	82	% Recovery	03/17/15 12:48	3202228
Number of oocysts counted	1623	N/A	82	oocysts	03/17/15 12:48	3202228
Sample volume filtered	1623	N/A	10.75	L	03/17/15 12:48	3202228
% of filtered volume examined	1623	N/A	100	%	03/17/15 12:48	3202228
Number of filters used	1623	N/A	1	N/A	03/17/15 12:48	3202228
Packed pellet volume	1623	N/A	0.4	ml	03/17/15 12:48	3202228
Volume of resuspended concentrate	1623	N/A	7.7	ml	03/17/15 12:48	3202228
Volume of resuspension processed	1623	N/A	7.7	ml	03/17/15 12:48	3202228
Sample volume spiked (L)	1623	N/A	10.75	L	03/17/15 12:48	3202228
Number of Cryptosporidium spiked	1623	N/A	99	oocysts	03/17/15 12:48	3202228
Giardia	1623	0.100	65	% Recovery	03/17/15 12:48	3202228

For method 1623: The calculated MRL value is dependant on the volume filtered and the volume analyzed for each sample.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

eurofins | Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 266824
Batch # 335508

www.eatonanalytical.com

Shaded area for EEA use only

LT2 - CHAIN OF CUSTODY RECORD

REPORT TO:	SAMPLER (Signature)	PWS ID #	PROJECT NAME	State (sample origin)
	Nicole M Webb	[redacted]	LT2	VA
BILL TO:	SAMPLE SITE: (Note: Each sample site must have its own Chain of Custody) RS-002		POPULATION SERVED: 111,902	MATRIX CODE: DW

Cryptosporidium- Field Filtered Sample

Sample ID (EEA use only):

Collection date/time: / AM / PM

Did filter clog? (circle one): Yes / No — If Yes, fill out Filter #2 info

	Filter #1	Filter #2 (if necessary)
Initial meter reading:		
Final meter reading:		
Filter Lot #:		

Total volume filtered (both filters) (in Liters): (1 G = 3.78 L)

Field Turbidity: (NTU) (Only if measured in the field)

Cryptosporidium- Bulk Sample (Cubitainer)

Sample ID (EEA use only): 3202225

Collection date/time: 3/10/15 / 1530 AM / PM

Field Turbidity: 2.40 (NTU) (Only if measured in the field)

E. coli (if testing is to be performed by EEA)

Sample ID (EEA use only):

Collection date/time: 3/10/15 / 1530 AM / PM

Number of containers: 1

Matrix Spike - Bulk Sample (Cubitainer)

Sample ID (EEA use only): 3202226

Collection date/time: 3/10/15 / 1530 AM / PM

Turbidity (if testing is to be performed by EEA)

Sample ID (EEA use only):

Collection date/time: / AM / PM

Samples received on Friday or unannounced may be subject to additional charges or rejected.

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
Nicole M Webb	3/10/15	1550 AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME AM PM	RECEIVED BY:(Signature)	DATE	TIME AM PM
RELINQUISHED BY:(Signature)	DATE	TIME AM PM	RECEIVED FOR LABORATORY BY: KDyne	DATE: 3-11-15	TIME: 1030 AM PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one): X Iced: Wet/Blue ___ Ambient 2.4 °C Upon Receipt ___ N/A

MATRIX CODES:
DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written: (15 working days) 0%
RV* = Rush Verbal: (5 working days) 50%
RW* = Rush Written: (5 working days) 75%
IV* = Immediate Verbal: (3 working days) 100%
IW* = Immediate Written: (3 working days) 125%
SP* = Weekend, Holiday CALL
STAT* = Less than 48 hours CALL

* Please call, expedited service not available for all testing

06-LO-F0872 Issue: 1.0 Effective Date: 2014-12-15

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agree to in writing by EEA.

eurofins | Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 266824
Batch # _____

www.eatonanalytical.com

Shaded area for EEA use only

LT2 - CHAIN OF CUSTODY RECORD

REPORT TO:	SAMPLER (Signature)	PWS ID #	PROJECT NAME	State (sample origin)
[redacted]	Martin Durant	[redacted]	LT2	Va
BILL TO:	SAMPLE SITE: (Note: Each sample site must have its own Chain of Custody) RS 001		POPULATION SERVED: 111,902	MATRIX CODE: DW

Cryptosporidium- Field Filtered Sample

Sample ID (EEA use only):

Collection date/time: / AM / PM

Did filter clog? (circle one): Yes / No — If Yes, fill out Filter #2 info

	Filter #1	Filter #2 (if necessary)
Initial meter reading:		
Final meter reading:		
Filter Lot #:		

Total volume filtered (both filters) (in Liters): (1 G = 3.78 L)

Field Turbidity: (NTU) (Only if measured in the field)

Cryptosporidium- Bulk Sample (Cubitainer)

Sample ID (EEA use only): 3202227

Collection date/time: 3/10/15 / 1401 AM / PM

Field Turbidity: (NTU) (Only if measured in the field)

E. coli (if testing is to be performed by EEA)

Sample ID (EEA use only):

Collection date/time: 03/10/15 / 1405 AM / PM

Number of containers: 1

Matrix Spike - Bulk Sample (Cubitainer)

Sample ID (EEA use only): 3202228

Collection date/time: 3/10/15 / 1410 AM / PM

Turbidity (if testing is to be performed by EEA)

Sample ID (EEA use only):

Collection date/time: 3/10/15 / 1405 AM / PM

Samples received on Friday or unannounced may be subject to additional charges or rejected.

Turbidity = 13.3 NTU

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
Martin Durant	3/10/15	1520 AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME AM PM	RECEIVED BY:(Signature)	DATE	TIME AM PM
RELINQUISHED BY:(Signature)	DATE	TIME AM PM	RECEIVED FOR LABORATORY BY: K Dunne	DATE: 3-11-15	TIME: 1030 AM PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one): X Iced/Wet/Blue ___ Ambient 0.6 °C Upon Receipt ___ N/A

MATRIX CODES:
DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written: (15 working days)	0%	IV* = Immediate Verbal: (3 working days)	100%
RV* = Rush Verbal: (5 working days)	50%	IW* = Immediate Written: (3 working days)	125%
RW* = Rush Written: (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing

06-LO-F0872 Issue: 1.0 Effective Date: 2014-12-15

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agree to in writing by EEA.

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log

Run ID: **200739** Method: **1623**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
MBC	3207463		RW	DB	03/17/2015 09:28	
OP&R	3207464		RW	DB	03/17/2015 09:51	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
MBC	Giardia	1623	10.000	—	<	10.000		cysts/100L	—	—	—	—	10	—	03/17/2015 09:28	3207463
MBC	Cryptosporidium	1623	10.000	—	<	10.000		oocysts/100L	—	—	—	—	10	—	03/17/2015 09:28	3207463
OP&R	Giardia	1623	1.000	—		69.0000	99.0	cysts/100L	70	14 - 100	—	—	1.0	—	03/17/2015 09:51	3207464
OP&R	Cryptosporidium	1623	1.000	—		59.0000	99.0	oocysts/100L	60	11 - 100	—	—	1.0	—	03/17/2015 09:51	3207464

eurofins | Eaton Analytical

Eurofins Eaton Analytical
Run Log

Run ID: **200751** Method: **1623**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
FS	3202225	RS-002	SW	DB	03/17/2015 10:08	
MS	3202226	RS-002	SW	DB	03/17/2015 10:32	
FS	3202227	RS-001	SW	DB	03/17/2015 10:56	
MS	3202228	RS-001	SW	DB	03/17/2015 12:48	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	Giardia	1623	0.095	RS-002	<	0.095		cysts/L	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	Cryptosporidium	1623	0.095	RS-002	<	0.095		oocysts/L	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	Sample volume filtered (L)	1623	N/A	RS-002		10.50		L	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	% of filtered volume examined	1623	N/A	RS-002		100		%	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	Number of oocysts counted	1623	N/A	RS-002	<	N/A		oocysts	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	Number of filters used	1623	N/A	RS-002		1		N/A	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	Packed pellet volume (ml)	1623	N/A	RS-002		0.4		ml	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	Volume of resuspended concentrate (ml)	1623	N/A	RS-002		7.4		ml	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
FS	Volume of resuspension processed (ml)	1623	N/A	RS-002		7.4		ml	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:08	3202225
MS	Giardia	1623	0.100	RS-002		49.0000	99.0	cysts/L	49	15 - 118	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Cryptosporidium	1623	0.100	RS-002		74.0000	99.0	oocysts/L	75	13 - 111	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Sample volume filtered (L)	1623	N/A	RS-002		10.75		L	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	% of filtered volume examined	1623	N/A	RS-002		100		%	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Number of oocysts counted	1623	N/A	RS-002		74		oocysts	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Number of filters used	1623	N/A	RS-002		1		N/A	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Packed pellet volume (ml)	1623	N/A	RS-002		0.5		ml	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Volume of resuspended concentrate (ml)	1623	N/A	RS-002		6.4		ml	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Volume of resuspension processed (ml)	1623	N/A	RS-002		6.4		ml	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
MS	Sample volume spiked (L)	1623	N/A	RS-002		10.75		L	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 10:32	3202226
FS	Giardia	1623	0.095	RS-001	<	0.095		cysts/L	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	Cryptosporidium	1623	0.095	RS-001		0.095		oocysts/L	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	Sample volume filtered (L)	1623	N/A	RS-001		10.50		L	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	% of filtered volume examined	1623	N/A	RS-001		100		%	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	Number of oocysts counted	1623	N/A	RS-001		1		oocysts	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	Number of filters used	1623	N/A	RS-001		1		N/A	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	Packed pellet volume (ml)	1623	N/A	RS-001		0.1		ml	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	Volume of resuspended concentrate (ml)	1623	N/A	RS-001		7.0		ml	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
FS	Volume of resuspension processed (ml)	1623	N/A	RS-001		7.0		ml	—	—	—	—	0.9524	03/12/2015 09:20	03/17/2015 10:56	3202227
MS	Giardia	1623	0.100	RS-001		65.0000	100	cysts/L	65	15 - 118	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Cryptosporidium	1623	0.100	RS-001		82.0000	100	oocysts/L	82	13 - 111	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Sample volume filtered (L)	1623	N/A	RS-001		10.75		L	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	% of filtered volume examined	1623	N/A	RS-001		100		%	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Number of oocysts counted	1623	N/A	RS-001		82		oocysts	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Number of filters used	1623	N/A	RS-001		1		N/A	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Packed pellet volume (ml)	1623	N/A	RS-001		0.4		ml	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Volume of resuspended concentrate (ml)	1623	N/A	RS-001		7.7		ml	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Volume of resuspension processed (ml)	1623	N/A	RS-001		7.7		ml	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228
MS	Sample volume spiked (L)	1623	N/A	RS-001		10.75		L	—	—	—	—	1.0	03/12/2015 09:20	03/17/2015 12:48	3202228

EEA Run ID 200751 / EEA Report # 335808

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
FS	Field Sample		
MS	Matrix Spike		
MBC	Microbiology Blank Control		
OP&R	Ongoing Precision & Recovery		

Eurofins Eaton Analytical
Run Log

Run Id: **200739** Status: **Completed** Method: **1623** Analyst: **killian**

Analyst: Kayla Killian **Date:** 03-17-2015 **QA Reviewer:** [illegible] **Date:** 03-19-2015

Type	Sample Id	File Name	Sample Site	Matrix	Analysis Date	Analysis Time
MBC	3207463		Not Available	RW	03/17/2015	09:28
OPR	3207464		Not Available	RW	03/17/2015	09:51

PB # 48065

		Sample No	Test Code	Company	Sample Site	Matrix	State	Sample Typ
		MB	Giardia/Cryptosporidium (C	NA	NA	RW	NA	MB
		OPR	Giardia/Cryptosporidium (C	NA	NA	RW	NA	OPR

		Sample No	Test Code	Company	Sample Site	Matrix	State	Sample Type
1		3201271	Giardia/Cryptosporidium (F	[redacted]	S03	SW	North Caro	FS
2		3201272	Giardia/Cryptosporidium (F	[redacted]	S01-North Fork WTP	SW	North Caro	FS
3		3201277	Giardia/Cryptosporidium (F	[redacted]	15-521	SW	South Caro	FS
4		3201333	Giardia/Cryptosporidium (C	[redacted]	1503-071-01/Culter	SW	New Mexic	FS
5		3202215	Giardia/Cryptosporidium (F	[redacted]	Long Pine Reservoir Discharge	SW	Pennsylvar	FS
6		3202216	Giardia/Cryptosporidium (F	[redacted]	Hap Cremean Water Plant-Tap	DW	Ohio	FS
7		3202217	Giardia/Cryptosporidium (F	[redacted]	Hap Cremean Water Plant-Raw	SW	Ohio	FS
8		3202221	Giardia/Cryptosporidium (F	[redacted]	Raw Water	SW	Florida	FS
9		3202222	Giardia/Cryptosporidium (F	[redacted]	Finished Water (POE)	DW	Florida	FS
10		3202223	Giardia/Cryptosporidium (C	[redacted]	Kanawha Valley Raw	SW	West Virgi	FS
11		3202224	Giardia/Cryptosporidium (C	[redacted]	Kanawha Valley Raw	SW	West Virgi	MS
12		3202225	Giardia/Cryptosporidium (C	[redacted] City of	RS-002	SW	Virginia	FS
13		3202226	Giardia/Cryptosporidium (C	[redacted] City of	RS-002	SW	Virginia	MS
14		3202227	Giardia/Cryptosporidium (C	[redacted] City of	RS-001	SW	Virginia	FS
15		3202228	Giardia/Cryptosporidium (C	[redacted] City of	RS-001	SW	Virginia	MS
16		3203139	Giardia/Cryptosporidium (C	[redacted]	New Raw Water Intake	SW	Texas	FS
17		3203141	Giardia/Cryptosporidium (F	[redacted]	Plant 1 Flow Split Building	SW	Indiana	FS
18		3203202	Giardia/Cryptosporidium (F	[redacted]	72 Park Ave Lab Sample PT D56	DW	Wisconsin	FS
19		3203205	Giardia/Cryptosporidium (C	[redacted]	72 Park Ave Lab Sample PT D57	SW	Wisconsin	FS
20		3203247	Giardia/Cryptosporidium (C	[redacted]	James River (JMR100)	SW	Missouri	FS

Notes:

Laboratory name: Eurofins Eaton Analytical, Inc	Laboratory ID: IN00035

Method 1622/1623 Slide Examination Form

Sample ID: MB #1	Analyst: K. Killian
Examination/verification completion date and time (must be completed within 168 hours (7 days) of staining) 05-17-2015 0923-0928	Slide number: 1 Total number of slides for this sample: 1
Positive staining control acceptable ☒ YES ☐ NO	Negative staining control acceptable ☒ YES ☐ NO
FITC, Size, Shape, DIC and DAPI Characteristics of 3 Oocysts Recorded ☒ YES ☐ NO	Instrument ID: DB

Cryptosporidium Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI -	DAPI +		D.I.C.		
			Light blue internal staining, no distinct nuclei, green rim (A)	Intense blue internal staining (B)	Number of nuclei stained sky blue (C)	Empty oocysts (D)	Oocysts with amorphous structure (E)	Oocysts with internal structure (F) Number of sporozoites
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Total FA number from this slide: 0	D.I.C. - Total number of empty oocysts (D): NA
DAPI -: Total number (A): NA	D.I.C. - Total number of oocysts with amorphous structure (E):
DAPI +: Total number (B):	D.I.C. - Total number of oocysts with internal structure (F):
DAPI +: Total number (C):	Total count DAPI + (C) that show structure by D.I.C. (F):

Result: NA Oocyst / L

Giardia Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI -	DAPI +		D.I.C.				
			Light blue internal staining, no distinct nuclei, green rim (A)	Intense blue internal staining (B)	Number of nuclei stained sky blue (C)	Empty cysts (D)	Cysts with amorphous structure (E)	Cysts with internal structure (F) Number of nuclei	Median body	Axonemes
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Total FA number from this slide: 0	D.I.C.: Total number of empty cysts (D): NA
DAPI-: Total number (A): NA	D.I.C.: Total number of cysts with amorphous structure (E):
DAPI+: Total number (B):	D.I.C.: Total number of cysts with one internal structure (F):
DAPI+: Total number (C):	D.I.C.: Total number of cysts with >one internal structure (F):
	Total number DAPI + (C) that show structure by D.I.C. (F):

Result: NA Cyst / L

Laboratory Name:	Eurofins Eaton Analytical Inc.	Laboratory ID:	IN00035

Method 1622/1623 Bench Sheet

Sample Identification Information			
* Lab Sample ID:	*MB*	* Sample type :	*MB*
* Facility ID:	*NA*	Matrix:	*RW*
* Collection Point ID:	*NA*	Project:	*NA*
* Collection date:	*NA*	* Collection time:	*NA*

Sample Spiking Information (for IPR, OPR, MS, and PT samples only)			
* Estimated number spiked:	Crypto Na Giardia Na	Spiking suspension ID:	*NA*
Milli-Q Lot:	*NA*	Tween 20 Lot:	*NA*
* Sample volume spiked (L):	*NA*		
Spiking date and time:	*NA* @	Spiking analyst:	*NA*

Sample Filtration			
Filter type:	Envirocheck HV	Filter lot:	FZ 3446
Did the filter clog (circle one):	*Yes* *No*	* Number of filter(s) used?:	1
* Volume filtered (L) to the nearest 1/4L:	10.0 L		
Filtration date and time:	3-11-2015 @ 1505	Filtration analyst:	SL

Sample Elution (must be initiated within 96 hours of sample collection/filtration)			
Elution Procedure:	*Wrist shaker*	Elution buffer lot:	*MB 60-1*
Type of Elution buffer:	*Laureth - 12*	Elution buffer expiration date:	*3/16/2015*
Elution date and time:	03-12-2015 @ 0820	Elution analyst:	KM

Concentration, IMS, and Slide Preparation (must be completed on same working day that samples are eluted)			
Procedure:	*Centrifugation*	IMS analyst:	SL
* Pellet volume after concentration (mL) to nearest 0.1mL:	<0.1mL		
* Total volume of resuspended concentrate (mL):	5.7mL		
* Volume of resuspended concentrate transferred to IMS (mL):	5.7mL		
Number of subsamples processed through entire method:	1		
IMS lot:	*1639275*	1.0 N NaOH lot:	*140785*
IMS buffer A dilution lot:	*MB 59-81*	0.1 N HCl lot:	*144206*
IMS system:	*Dynal GC-Combo*	Methanol lot:	*132624*
Slides:	*Dynal*	Number of slides for sample:	1
Slide prep. date and time:	3-12-2015 @ 1420	Analyst:	SL

Slide Staining (must be completed within 72 hours of application of sample to the slide)			
Detection Kit:	*BTF EasyStain*	PBS lot:	*MB 59-60*
Detection Kit lot:	*B106*	Dapi working stock ID#:	MB60-4
Slide staining date and time:	3-12-2015 @ 1615	Staining analyst:	SL

*** Examination Results as Total FA number from all slides** **Cryptosporidium:** 0 **Giardia:** 0

Comments:

MB/OPR # 1

For LT2 Samples Only:
Sample Volume:_____ 96 Hours to elution:_____ Slide examined in 7 days_____ By_____

Laboratory name: Eurofins Eaton Analytical, Inc	Laboratory ID: IN00035

Method 1622/1623 Slide Examination Form

Sample ID: OPR #1	Analyst: K. Killian
Examination/verification completion date and time (must be completed within 168 hours (7 days) of staining) 08-17-2015 0930-0951	Slide number: 1 Total number of slides for this sample: 1
Positive staining control acceptable ☒ YES ☐ NO	Negative staining control acceptable ☒ YES ☐ NO
FITC, Size, Shape, DIC and DAPI Characteristics of 3 Oocysts Recorded ☐ YES ☐ NO	Instrument ID: DB

Cryptosporidium Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI - Light blue internal staining, no distinct nuclei, green rim (A)	DAPI + Intense blue internal staining (B)	DAPI + Number of nuclei stained sky blue (C)	D.I.C. Empty oocysts (D)	D.I.C. Oocysts with amorphous structure (E)	D.I.C. Oocysts with internal structure (F) Number of sporozoites
1	round	5.0x5.0			4			2
2	round	5.0x5.0			4			2
3	round	5.0x5.0			4			3
4								
5								
6								
7								
8								
9								
10								

Result: NA Oocyst / L

Total FA number from this slide: 59	D.I.C. - Total number of empty oocysts (D): 0
DAPI -: Total number (A): 0	D.I.C. - Total number of oocysts with amorphous structure (E): 0
DAPI +: Total number (B): 0	D.I.C. - Total number of oocysts with internal structure (F): 3
DAPI +: Total number (C): 3	Total count DAPI + (C) that show structure by D.I.C. (F): 3

Giardia Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI - Light blue internal staining, no distinct nuclei, green rim (A)	DAPI + Intense blue internal staining (B)	DAPI + Number of nuclei stained sky blue (C)	D.I.C. Empty cysts (D)	D.I.C. Cysts with amorphous structure (E)	D.I.C. Cysts with internal structure (F) Number of nuclei	Median body	Axonemes
1	oval	13.0x8.0		X			X			
2	oval	12.0x7.0		X			X			
3	oval	13.0x7.0		X			X			
4										
5										
6										
7										
8										
9										
10										

Result: NA Cyst / L

Total FA number from this slide: 609	D.I.C.: Total number of empty cysts (D): 0
DAPI-: Total number (A): 0	D.I.C.: Total number of cysts with amorphous structure (E): 3
DAPI+: Total number (B): 3	D.I.C.: Total number of cysts with one internal structure (F): 0
DAPI+: Total number (C): 0	D.I.C.: Total number of cysts with >one internal structure (F): 0
	Total number DAPI + (C) that show structure by D.I.C. (F): 0

Laboratory Name:	Eurofins Eaton Analytical Inc.	Laboratory ID:	IN00035

Method 1622/1623 Bench Sheet

Sample Identification Information			
* Lab Sample ID:	*OPR*	* Sample type :	*OPR*
* Facility ID:	*NA*	Matrix:	*RW*
* Collection Point ID:	*NA*	Project:	*NA*
* Collection date:	*NA*	* Collection time:	*NA*

Sample Spiking Information (for IPR, OPR, MS, and PT samples only)			
* Estimated number spiked:	Cryptc 99 / Giardia 99	Spiking suspension ID:	B 530
Milli-Q Lot:	02262015	Tween 20 Lot:	MB58-93
* Sample volume spiked (L):	10.0 L		
Spiking date and time:	03-11-2015 @ 1450	Spiking analyst:	SF

Sample Filtration			
Filter type:	Envirocheck HV	Filter lot:	F23446
Did the filter clog (circle one):	Yes (No)	* Number of filter(s) used?:	1
* Volume filtered (L) to the nearest 1/4L:	10.0 L → 3-11-2015@1455 SF		
Filtration date and time:	3-11-2015@ 1500	Filtration analyst:	SF

Sample Elution (must be initiated within 96 hours of sample collection/filtration)			
Elution Procedure:	*Wrist shaker*	Elution buffer lot:	*MB 60-1*
Type of Elution buffer:	*Laureth - 12*	Elution buffer expiration date:	*3/16/2015*
Elution date and time:	03-12-2015 @ 0820	Elution analyst:	KM

Concentration, IMS, and Slide Preparation (must be completed on same working day that samples are eluted)			
Procedure:	*Centrifugation*	IMS analyst:	SF
* Pellet volume after concentration (mL) to nearest 0.1mL:		<0.1mL	
* Total volume of resuspended concentrate (mL):		5.3mL	
* Volume of resuspended concentrate transferred to IMS (mL):		5.3ml	
Number of subsamples processed through entire method:		1	
IMS lot:	*1639275*	1.0 N NaOH lot:	*140785*
IMS buffer A dilution lot:	*MB 59-81*	0.1 N HCl lot:	*144206*
IMS system:	*Dynal GC-Combo*	Methanol lot:	*132624*
Slides:	*Dynal*	Number of slides for sample:	1
Slide prep. date and time:	3-12-2015 @ 1420	Analyst:	SF

Slide Staining (must be completed within 72 hours of application of sample to the slide)			
Detection Kit:	*BTF EasyStain*	PBS lot:	*MB 59-60*
Detection Kit lot:	*B106*	Dapi working stock ID#:	MB 60-4
Slide staining date and time:	3-12-2015 @ 1645	Staining analyst:	SF

*** Examination Results as Total FA number from all slides** **Cryptosporidium:** 59 **Giardia:** 69

Comments:

MB/OPR # 1

For LT2 Samples Only:
Sample Volume:_____ 96 Hours to elution:_____ Slide examined in 7 days_____ By_____

Eurofins Eaton Analytical
Run Log

Run Id: **200751** Status: **Completed** Method: **1623** Analyst: **killian**

Analyst: Kayal Kumi **Date:** 03-18-2015 **QA Reviewer:** [illegible] **Date:** 3-19-2015

Type	Sample Id	File Name	Sample Site	Matrix	Analysis Date	Analysis Time
FS	3202225		RS-002	SW	03/17/2015	10:08
MS	3202226		RS-002	SW	03/17/2015	10:32
FS	3202227		RS-001	SW	03/17/2015	10:56
MS	3202228		RS-001	SW	03/17/2015	12:48
MS	3202228		RS-001	SW	03/17/2015	12:48
FS	3202217		[redacted]	SW	03/17/2015	13:31
FS	3202216		[redacted]	DW	03/17/2015	13:43

Laboratory name: Eurofins Eaton Analytical, Inc	Laboratory ID: IN00035

Method 1622/1623 Slide Examination Form

Sample ID: 3202225 [redacted]	Analyst: K. Killian
Examination/verification completion date and time: 03-17-2015 0958-1008 (must be completed within 168 hours (7 days) of staining)	Slide number: 1 Total number of slides for this sample: 1
Positive staining control acceptable ☒ YES ☐ NO	Negative staining control acceptable ☒ YES ☐ NO
FITC, Size, Shape, DIC and DAPI Characteristics of 3 Oocysts Recorded ☒ YES ☐ NO	Instrument ID: DB

Cryptosporidium Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI -	DAPI +		D.I.C.		
			Light blue internal staining, no distinct nuclei, green rim (A)	Intense blue internal staining (B)	Number of nuclei stained sky blue (C)	Empty oocysts (D)	Oocysts with amorphous structure (E)	Oocysts with internal structure (F) Number of sporozoites
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Result: <0.095 Oocyst / L

Total FA number from this slide: 0	D.I.C. - Total number of empty oocysts (D): NA
DAPI -: Total number (A): NA	D.I.C. - Total number of oocysts with amorphous structure (E):
DAPI +: Total number (B):	D.I.C. - Total number of oocysts with internal structure (F):
DAPI +: Total number (C):	Total count DAPI + (C) that show structure by D.I.C. (F):

Giardia Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI -	DAPI +		D.I.C.				
			Light blue internal staining, no distinct nuclei, green rim (A)	Intense blue internal staining (B)	Number of nuclei stained sky blue (C)	Empty cysts (D)	Cysts with amorphous structure (E)	Cysts with internal structure (F) Number of nuclei	Median body	Axonemes
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Result: <0.095 Cyst / L

Total FA number from this slide: 0	D.I.C.: Total number of empty cysts (D): NA
DAPI-: Total number (A): NA	D.I.C.: Total number of cysts with amorphous structure (E):
DAPI+: Total number (B):	D.I.C.: Total number of cysts with one internal structure (F):
DAPI+: Total number (C):	D.I.C.: Total number of cysts with >one internal structure (F):
	Total number DAPI + (C) that show structure by D.I.C. (F):

Laboratory Name:	Eurofins Eaton Analytical Inc.	Laboratory ID:	IN00035

Method 1622/1623 Bench Sheet

Sample Identification Information			
* Lab Sample ID:	*3202225*	* Sample type :	*FS*
* Facility ID:	[redacted], *City of*	Matrix:	*SW*
* Collection Point ID:	*RS-002*	Project:	*LT2*
* Collection date:	*03/10/2015 by Client*	* Collection time:	1530

Sample Spiking Information (for IPR, OPR, MS, and PT samples only)				
* Estimated number spiked:	Crypto	Giardia	Spiking suspension ID:	*NA*
Milli-Q Lot:	*NA*		Tween 20 Lot:	*NA*
* Sample volume spiked (L):	*NA*			
Spiking date and time:	*NA*	@	Spiking analyst:	*NA*

Sample Filtration			
Filter type:	Envirocheck HV	Filter lot:	FZ3446
Did the filter clog (circle one):	*Yes* *No*	* Number of filter(s) used?:	1
* Volume filtered (L) to the nearest 1/4L:	10.5 L		
Filtration date and time:	3-11-2015 @ 1320	Filtration analyst:	SF

Sample Elution (must be initiated within 96 hours of sample collection/filtration)			
Elution Procedure:	*Wrist shaker*	Elution buffer lot:	*MB 60-1*
Type of Elution buffer:	*Laureth - 12*	Elution buffer expiration date:	*3/16/2015*
Elution date and time:	3-12-2015 @ 0920	Elution analyst:	

Concentration, IMS, and Slide Preparation (must be completed on same working day that samples are eluted)			
Procedure:	*Centrifugation*	IMS analyst:	3-12-15 SF ~~0.4ml~~ SF
* Pellet volume after concentration (mL) to nearest 0.1mL:	3-12-15 SF ~~7.4ml~~ 0.4ml		
* Total volume of resuspended concentrate (mL):	7.4ml		
* Volume of resuspended concentrate transferred to IMS (mL):	7.4ml		
Number of subsamples processed through entire method:	1		
IMS lot:	*1639275*	1.0 N NaOH lot:	*140785*
IMS buffer A dilution lot:	*MB 59-81*	0.1 N HCl lot:	*144206*
IMS system:	*Dynal GC-Combo*	Methanol lot:	*132624*
Slides:	*Dynal*	Number of slides for sample:	1
Slide prep. date and time:	3-12-2015 @ 1400	Analyst:	SF

Slide Staining (must be completed within 72 hours of application of sample to the slide)			
Detection Kit:	*BTF EasyStain*	PBS lot:	*MB 59-60*
Detection Kit lot:	*B106*	Dapi working stock ID#:	MB 60-4
Slide staining date and time:	3-12-2015 @ 1645	Staining analyst:	SF

* Examination Results as Total FA number from all slides	Cryptosporidium: 0	Giardia: 0

Comments:

MB/OPR # 1

For LT2 Samples Only:
Sample Volume: ✓ 96 Hours to elution: ✓ Slide examined in 7 days ✓ By KJK

Laboratory name: Eurofins Eaton Analytical, Inc	Laboratory ID: IN00035

Method 1622/1623 Slide Examination Form

Sample ID: 3202226 [redacted] MS	Analyst: K. Killian
Examination/verification completion date and time 03-17-2015 1012-1082 (must be completed within 168 hours (7 days) of staining)	Slide number: 1 Total number of slides for this sample: 1
Positive staining control acceptable ☒ YES ☐ NO	Negative staining control acceptable ☒ YES ☐ NO
FITC, Size, Shape, DIC and DAPI Characteristics of 3 Oocysts Recorded ☒ YES ☐ NO	Instrument ID: DB

Cryptosporidium Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI - Light blue internal staining, no distinct nuclei, green rim (A)	DAPI + Intense blue internal staining (B)	DAPI + Number of nuclei stained sky blue (C)	D.I.C. Empty oocysts (D)	D.I.C. Oocysts with amorphous structure (E)	D.I.C. Oocysts with internal structure (F) Number of sporozoites
1	round	5.0x5.0			4			4
2	round	5.0x5.0			4			3
3	round	5.0x5.0			4			3
4								
5								
6								
7								
8								
9								
10								

Result: NA Oocyst / L

Total FA number from this slide: 74	D.I.C. - Total number of empty oocysts (D): 0
DAPI -: Total number (A): 0	D.I.C. - Total number of oocysts with amorphous structure (E): 0
DAPI +: Total number (B): 0	D.I.C. - Total number of oocysts with internal structure (F): 3
DAPI +: Total number (C): 3	Total count DAPI + (C) that show structure by D.I.C. (F): 3

Giardia Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI - Light blue internal staining, no distinct nuclei, green rim (A)	DAPI + Intense blue internal staining (B)	DAPI + Number of nuclei stained sky blue (C)	D.I.C. Empty cysts (D)	D.I.C. Cysts with amorphous structure (E)	D.I.C. Cysts with internal structure (F) Number of nuclei	D.I.C. Cysts with internal structure (F) Median body	D.I.C. Cysts with internal structure (F) Axonemes
1	oval	11.0x6.0		X			X			
2	oval	12.0x6.0		X			X			
3	oval	12.0x8.0		X			X			
4										
5										
6										
7										
8										
9										
10										

Result: NA Cyst / L

Total FA number from this slide: 49	D.I.C.: Total number of empty cysts (D): 0
DAPI-: Total number (A): 0	D.I.C.: Total number of cysts with amorphous structure (E): 3
DAPI+: Total number (B): 3	D.I.C.: Total number of cysts with one internal structure (F): 0
DAPI+: Total number (C): 0	D.I.C.: Total number of cysts with >one internal structure (F): 0
	Total number DAPI + (C) that show structure by D.I.C. (F): 0

Laboratory Name:	Eurofins Eaton Analytical Inc.	Laboratory ID:	IN00035

Method 1622/1623 Bench Sheet

Sample Identification Information			
* Lab Sample ID:	*3202226*	* Sample type :	*MS*
* Facility ID:	[redacted] *City of*	Matrix:	*SW*
* Collection Point ID:	*RS-002*	Project:	*LT2*
* Collection date:	*03/10/2015 by Client*	* Collection time:	15:30

Sample Spiking Information (for IPR, OPR, MS, and PT samples only)			
* Estimated number spiked:	Crypto 99 / Giardia 99	Spiking suspension ID:	B530
Milli-Q Lot:	02-26-2015	Tween 20 Lot:	MB58-93
* Sample volume spiked (L):	10.75L		
Spiking date and time:	3-11-2015 @ 1345	Spiking analyst:	SF

Sample Filtration			
Filter type:	Envirocheck HV	Filter lot:	FZ3446
Did the filter clog (circle one):	Yes (No)	* Number of filter(s) used?:	1
* Volume filtered (L) to the nearest 1/4L:	10.75L		
Filtration date and time:	3-11-15 @1345	Filtration analyst:	SF

Sample Elution (must be initiated within 96 hours of sample collection/filtration)			
Elution Procedure:	*Wrist shaker*	Elution buffer lot:	*MB 60-1*
Type of Elution buffer:	*Laureth - 12*	Elution buffer expiration date:	*3/16/2015*
Elution date and time:	3-12-2015 @0920	Elution analyst:	

Concentration, IMS, and Slide Preparation (must be completed on same working day that samples are eluted)			
Procedure:	*Centrifugation*	IMS analyst:	~~0.5mL~~ 3-12-15 SF
* Pellet volume after concentration (mL) to nearest 0.1mL:	3-12-15 SF ~~0.4mL~~ 0.5 ml		
* Total volume of resuspended concentrate (mL):	0.4ml		
* Volume of resuspended concentrate transferred to IMS (mL):	0.4ml		
Number of subsamples processed through entire method:	1		
IMS lot:	*1639275*	1.0 N NaOH lot:	*140785*
IMS buffer A dilution lot:	*MB 59-81*	0.1 N HCl lot:	*144206*
IMS system:	*Dynal GC-Combo*	Methanol lot:	*132624*
Slides:	*Dynal*	Number of slides for sample:	1
Slide prep. date and time:	3-12-2015@ 1400	Analyst:	SF

Slide Staining (must be completed within 72 hours of application of sample to the slide)			
Detection Kit:	*BTF EasyStain*	PBS lot:	*MB 59-60*
Detection Kit lot:	*B106*	Dapi working stock ID#:	MB 60-4
Slide staining date and time:	3-12-2015 @ 1645	Staining analyst:	SF

*** Examination Results as Total FA number from all slides** **Cryptosporidium:** 74 **Giardia:** 49

Comments:

MB/OPR # 1

For LT2 Samples Only:
Sample Volume: ✓ 96 Hours to elution: ✓ Slide examined in 7 days ✓ By KJK

Laboratory name: Eurofins Eaton Analytical, Inc	Laboratory ID: IN00035

Method 1622/1623 Slide Examination Form

Sample ID: 3202227 [redacted]	Analyst: K. Killian
Examination/verification completion date and time (must be completed within 168 hours (7 days) of staining) 03-17-2015 1034-1050	Slide number: 1 Total number of slides for this sample: 1
Positive staining control acceptable ☒ YES ☐ NO	Negative staining control acceptable ☒ YES ☐ NO
FITC, Size, Shape, DIC and DAPI Characteristics of 3 Oocysts Recorded ☒ YES ☐ NO	Instrument ID: DB

Cryptosporidium Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI -	DAPI +		D.I.C.		
			Light blue internal staining, no distinct nuclei, green rim (A)	Intense blue internal staining (B)	Number of nuclei stained sky blue (C)	Empty oocysts (D)	Oocysts with amorphous structure (E)	Oocysts with internal structure (F) Number of sporozoites
1 JW	oval	5.0x5.0			4			2
2								
3								
4								
5								
6								
7								
8								
9								
10								

Result: =0.095 Oocyst / L

Total FA number from this slide: 1	D.I.C. - Total number of empty oocysts (D): 0
DAPI -: Total number (A): 0	D.I.C. - Total number of oocysts with amorphous structure (E): 0
DAPI +: Total number (B): 0	D.I.C. - Total number of oocysts with internal structure (F): 1
DAPI +: Total number (C): 1	Total count DAPI + (C) that show structure by D.I.C. (F): 1

Giardia Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI -	DAPI +		D.I.C.				
			Light blue internal staining, no distinct nuclei, green rim (A)	Intense blue internal staining (B)	Number of nuclei stained sky blue (C)	Empty cysts (D)	Cysts with amorphous structure (E)	Cysts with internal structure (F) Number of nuclei	Median body	Axonemes
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Result: <0.095 Cyst / L

Total FA number from this slide: 0	D.I.C.: Total number of empty cysts (D): NA
DAPI-: Total number (A): NA	D.I.C.: Total number of cysts with amorphous structure (E):
DAPI+: Total number (B):	D.I.C.: Total number of cysts with one internal structure (F):
DAPI+: Total number (C):	D.I.C.: Total number of cysts with >one internal structure (F):
	Total number DAPI + (C) that show structure by D.I.C. (F):

Laboratory Name:	Eurofins Eaton Analytical Inc.	Laboratory ID:	IN00035

Method 1622/1623 Bench Sheet

Sample Identification Information			
* Lab Sample ID:	*3202227*	* Sample type :	*FS*
* Facility ID:	[redacted], *City of*	Matrix:	*SW*
* Collection Point ID:	*RS-001*	Project:	*LT2*
* Collection date:	*03/10/2015 by Client*	* Collection time:	14:01

Sample Spiking Information (for IPR, OPR, MS, and PT samples only)					
* Estimated number spiked:	Crypto na	Giardia na	Spiking suspension ID:	*NA*	
Milli-Q Lot:	*NA*		Tween 20 Lot:	*NA*	
* Sample volume spiked (L):	*NA*				
Spiking date and time:	*NA*	@	Spiking analyst:	*NA*	

Sample Filtration			
Filter type: Envirocheck HV		Filter lot:	FZ 3446
Did the filter clog (circle one):	Yes (No)	* Number of filter(s) used?:	1
* Volume filtered (L) to the nearest 1/4L:	10.5L		
Filtration date and time:	3-11-2015 @ 12:45	Filtration analyst:	SF

Sample Elution (must be initiated within 96 hours of sample collection/filtration)			
Elution Procedure:	*Wrist shaker*	Elution buffer lot:	*MB 60-1*
Type of Elution buffer:	*Laureth - 12*	Elution buffer expiration date:	*3/16/2015*
Elution date and time:	03-12-2015 @ 0920	Elution analyst:	SF

Concentration, IMS, and Slide Preparation (must be completed on same working day that samples are eluted)			
Procedure:	*Centrifugation*	IMS analyst:	SF
* Pellet volume after concentration (mL) to nearest 0.1mL:		0.1mL	
* Total volume of resuspended concentrate (mL):		7.0ml	
* Volume of resuspended concentrate transferred to IMS (mL):		7.0ml	
Number of subsamples processed through entire method:		1	
IMS lot:	*1639275*	1.0 N NaOH lot:	*140785*
IMS buffer A dilution lot:	*MB 59-81*	0.1 N HCl lot:	*144206*
IMS system:	*Dynal GC-Combo*	Methanol lot:	*132624*
Slides:	*Dynal*	Number of slides for sample:	1
Slide prep. date and time:	3-12-2015 @ 1400	Analyst:	SF

Slide Staining (must be completed within 72 hours of application of sample to the slide)			
Detection Kit:	*BTF EasyStain*	PBS lot:	*MB 59-60*
Detection Kit lot:	*B106*	Dapi working stock ID#:	MB 60-4
Slide staining date and time:	3-12-2015 @ 1645	Staining analyst:	SF

*** Examination Results as Total FA number from all slides** **Cryptosporidium:** 1 **Giardia:** 0

Comments:

MB/OPR # 1

For LT2 Samples Only:
Sample Volume: ✓ 96 Hours to elution: ✓ Slide examined in 7 days ✓ By KJK

Laboratory name: Eurofins Eaton Analytical, Inc	Laboratory ID: IN00035

Method 1622/1623 Slide Examination Form

Sample ID: 3208228 [redacted] MS	Analyst: K. Killian
Examination/verification completion date and time: 03-17-2015 1230-1248 (must be completed within 168 hours (7 days) of staining)	Slide number: 1 Total number of slides for this sample: 1
Positive staining control acceptable ☒ YES ☐ NO	Negative staining control acceptable ☒ YES ☐ NO
FITC, Size, Shape, DIC and DAPI Characteristics of 3 Oocysts Recorded ☒ YES ☐ NO	Instrument ID: DB

Cryptosporidium Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI - Light blue internal staining, no distinct nuclei, green rim (A)	DAPI + Intense blue internal staining (B)	DAPI + Number of nuclei stained sky blue (C)	D.I.C. Empty oocysts (D)	D.I.C. Oocysts with amorphous structure (E)	D.I.C. Oocysts with internal structure (F) Number of sporozoites
1	round	5.0x5.0			4			4
2	round	5.0x5.0		X			X	
3	round	5.0x5.0			3			3
4								
5								
6								
7								
8								
9								
10								

Result: NA Oocyst / L

Total FA number from this slide: 88	D.I.C. - Total number of empty oocysts (D): 0
DAPI -: Total number (A): 0	D.I.C. - Total number of oocysts with amorphous structure (E): 1
DAPI +: Total number (B): 1	D.I.C. - Total number of oocysts with internal structure (F): 2
DAPI +: Total number (C): 2	Total count DAPI + (C) that show structure by D.I.C. (F): 2

Giardia Results

Object located by FA No.	Shape (oval or round)	Size L x W (µm)	DAPI - Light blue internal staining, no distinct nuclei, green rim (A)	DAPI + Intense blue internal staining (B)	DAPI + Number of nuclei stained sky blue (C)	D.I.C. Empty cysts (D)	D.I.C. Cysts with amorphous structure (E)	D.I.C. Cysts with internal structure (F) Number of nuclei	Median body	Axonemes
1	oval	14.0x8.0		X			X			
2	oval	13.0x8.0		X			X			
3	oval	15.0x8.0		X			X			
4										
5										
6										
7										
8										
9										
10										

Result: NA Cyst / L

Total FA number from this slide: 65	D.I.C.: Total number of empty cysts (D): 0
DAPI-: Total number (A): 0	D.I.C.: Total number of cysts with amorphous structure (E): 3
DAPI+: Total number (B): 3	D.I.C.: Total number of cysts with one internal structure (F): 0
DAPI+: Total number (C): 6	D.I.C.: Total number of cysts with >one internal structure (F): 0
	Total number DAPI + (C) that show structure by D.I.C. (F): 0

Laboratory Name:	Eurofins Eaton Analytical Inc.	Laboratory ID:	IN00035

Method 1622/1623 Bench Sheet

Sample Identification Information			
* Lab Sample ID:	*3202228*	* Sample type :	*MS*
* Facility ID:	[redacted], *City of*	Matrix:	*SW*
* Collection Point ID:	*RS-001*	Project:	*LT2*
* Collection date:	*03/10/2015 by Client*	* Collection time:	14:10

Sample Spiking Information (for IPR, OPR, MS, and PT samples only)			
* Estimated number spiked:	Crypto 99 Giardia 100	Spiking suspension ID:	B 526
Milli-Q Lot:	02 26 2015	Tween 20 Lot:	MB 58-93
* Sample volume spiked (L):	10.75L		
Spiking date and time:	3-11-2015 @ 1300	Spiking analyst:	SF

Sample Filtration			
Filter type:	Envirocheck HV	Filter lot:	FZ-3446
Did the filter clog (circle one):	*Yes* (No)	* Number of filter(s) used?:	1
* Volume filtered (L) to the nearest 1/4L:	10.75 L		
Filtration date and time:	3-11-2015@ 1305	Filtration analyst:	SF

Sample Elution (must be initiated within 96 hours of sample collection/filtration)			
Elution Procedure:	*Wrist shaker*	Elution buffer lot:	*MB 60-1*
Type of Elution buffer:	*Laureth - 12*	Elution buffer expiration date:	*3/16/2015*
Elution date and time:	03-12-2015 @ 0920	Elution analyst:	SF

Concentration, IMS, and Slide Preparation (must be completed on same working day that samples are eluted)			
Procedure:	*Centrifugation*	IMS analyst:	SF
* Pellet volume after concentration (mL) to nearest 0.1mL:		0.4ml	
* Total volume of resuspended concentrate (mL):		7.7ml	
* Volume of resuspended concentrate transferred to IMS (mL):		7.7ml	
Number of subsamples processed through entire method:		1	
IMS lot:	*1639275*	1.0 N NaOH lot:	*140785*
IMS buffer A dilution lot:	*MB 59-81*	0.1 N HCl lot:	*144206*
IMS system:	*Dynal GC-Combo*	Methanol lot:	*132624*
Slides:	*Dynal*	Number of slides for sample:	1
Slide prep. date and time:	3-12-2015 @ 1400	Analyst:	SF

Slide Staining (must be completed within 72 hours of application of sample to the slide)			
Detection Kit:	*BTF EasyStain*	PBS lot:	*MB 59-60*
Detection Kit lot:	*B106*	Dapi working stock ID#:	MB 60-4
Slide staining date and time:	03-12-2015 @ 1645	Staining analyst:	SF

*** Examination Results as Total FA number from all slides** **Cryptosporidium:** 82 **Giardia:** 65

Comments:

MB/OPR # 1

For LT2 Samples Only:
Sample Volume: ✓ 96 Hours to elution: ✓ Slide examined in 7 days ✓ By KJK

ANSI-ASQ National Accreditation Board

September 4, 2015

VIA EMAIL

Nilda Cox
Eurofins Eaton Analytical
750 Royal Oaks Drive Suite 100
Monrovia, CA

RE: Reaccreditation Assessment

Dear Nilda:

Congratulations! You and your staff have successfully completed all the requirements for ISO/IEC 17025:2005. ANSI-ASQ National Accreditation Board has concluded that the management system assessed conforms to the requirements and Accreditation is granted. Your commitment to a quality management system is appreciated. This final report concludes the evaluation of the competence and conformance of your organization during your Reaccreditation Assessment on July 6 through July 9, 2015.

The attached non-conformance summary reflects acceptable corrective action responses and final ANSI-ASQ National Accreditation Board verification. Additional documentation of this assessment may be found in the ANSI-ASQ National Accreditation Board database, EQM. A copy of your Certificate and Scope of Accreditation are available on our website.

Thank you for choosing ANSI-ASQ National Accreditation Board as your accreditation body. We are proud to be a partner in your accreditation needs. Please take a moment to complete our survey, which will be sent to you in a separate email when the assessment has been concluded.

Sincerely,

Kelly Feist

Kelly Feist
Accreditation Manager, Testing

Attachments available in EQM:
Opening and Closing Checklist
Attendance Record
Confidential and No Conflict of Interest Agreement
OPIEF Method Witness Form
Assessment Checklist
Non-conformances (summarized below)

ANSI-ASQ National Accreditation Board

ANAB

Nonconformity Summary

Organization Name: Eurofins Eaton Analytical

Assessment Dates: 07/06/2015-07/09/2015 – Reaccreditation Assessment

Lead Assessor: Matthew Sica

Standard: ISO/IEC 17025:2005

NC #	Major/Minor /OFI	Repeat Finding?	Clause #	Description of Finding	Response Acceptable
1	Minor	Y☐ N☒	4.13.2.1	4.13.2.1: The laboratory does not retain records of original observations, derived data and sufficient information to establish an audit trail. Examples include: (a) The timer used for autoclave timer check is not identified on the autoclave log. (b) There is no direct linkage in record to the positive and negative controls used for media verification. While the records for each batch identifies the controls used, the records for media verification was assumed by week of preparation, not by internal number. (c) There are no records associated to the calibration of the conductivity meter used in radiochemistry. (d) Radium 226/228 records do not indicate the oven drying of the barium sulfate precipitate. (e) The CO-PRECIPITATION METHOD for GROSS α bench sheets do not include identification of reagents/carriers used. (f) The "Mercury Digestion Prep Sheet" does not identify curve is not digested.	Y☒ N☐

2	Minor	Y☐ N☒	5.4.1	5.4.1: The laboratory does not have instructions on the handling and preparation of items for testing, where the absence of such instructions could jeopardize the results of tests. (a) SOP 2374 09) 1. States: "Energy Calibrations states: Efficiency calibration or calibration verification should be done annually." This allows for optionality which does not identify the criteria for calibration or verification (b) SOP2374 09) 4 B 4 references "excessive background", but does not define the criteria for excessive. (c) The SOP for radon, Radiochem SOP 2372, does not defined how the quality controls are prepared. (d) Endothall SOP, LCMS-SOP2445 11.B states "Isotope dilution Standard (IDS) should be used for analysis of Endothall." implying optionality.	Y☒ N☐
3	Minor	Y☐ N☒	5.4.1	5.4.1: All instructions, standards, manuals and reference data relevant to the work of the laboratory are not kept up to date. Examples include, but are not limited to: (a) The TSS SOP, Wet Chem SOP 2463, does not require the observed MRL check sample analyzed with each batch. (b) The TDS SOP, Wet Chem SOP 2464, does not require the observed MRL check sample analyzed with each batch. (c) The Legionella SOP, Micro SOP3970, does not clearly reflect how the E Coli negative control is evaluated with the negative control media. (d) The SOP for RA226/228, Radiochem SOP 2374, does not require the observed MRL samples analyzed with each batch. (e) The SOP for radon, Radiochem SOP 2372, does not require the observed use of the "HI" calibration verification standard observed at the beginning and end of the batch. (f) The SOP for ICPMS, Metals SOP2364, does not require the observed 4ppb Cr and 2ppb Se QC checks run daily. (g) The SOP for ICP, Metals SOP2363, does not require the observed ½ MRL check sample analyzed with each batch. (h) The SOP for hexavalent chromium, IC SOP2453, does not reference use of the observed "Buffer Blank". (i) The SOP for hexavalent chromium, IC SOP 2453, does not reference the observed use of 2 levels of MRL checks. (j) The EPA 350.1 SOP, WetChem SOP 2480, requires that manual distillation is not required if comparability data or representative samples are on file to show that the distillation step is not necessary. This data is not available. (k) The SOP for EPA 525.2, GCMS SOP2396, Section 11 P requires a quarterly midlevel extracted sample, which is not performed. (l) The SOP for Endothall, GCMS SOP2414, does not require the observed use of the MRLL check sample analyzed with each batch.	Y☒ N☐
4	Minor	Y☐ N☒	5.5.8	5.5.8: Equipment under the control of the laboratory and requiring calibration is not consistently identified to indicate the status of calibration, including the date when last calibrated and the date or expiration criteria when recalibration is due. The conductivity meter for radiochemistry is not labeled with calibration status. Note: the radiochemistry technicians do verification of meter, but other analysts perform the calibration.	Y☒ N☐
5	Minor	Y☐ N☐	4.3.2.2 a	4.3.2.2 a : The document control procedure adopted does not ensure authorized editions of appropriate documents are available at all locations where operations essential to the effective functioning of the laboratory are performed. SOP Radiochemistry PR2374 is not available at point of use.	Y☒ N☐

	OFI	Y☐ N☒	5.5.4	5.5.4: Each item of equipment and its software used for testing and significant to the result are not uniquely identified. Metals digestions hot blocks MH-3 and MH-4 are not labeled, while MH-1 and MH-2 are.	N/A
6	Minor	Y☐ N☒	4.9.1	4.9.1: While the laboratory has a policies and procedures that shall be implemented when any aspect of its testing work, or the results of this work, do not conform to its own procedures or the agreed requirements of the customer. These were not to be implemented when required. For example: (a) The Sample ID's 201506030382-83 for Hexavalent Chromium were flagged as non-readable for pH using strips. The samples were not checked by pH probe. The samples were run past hold time for non-preserved samples, but not flagged as such on report. (b) The batch INRF 062215 KXS run on June 22, 2015 for NH_3 had all 3 sets of MS and MSD samples fail the 90%-110% criteria. Section 11 B 3 of the SOP2480 states, "matrix spike failures on un-distilled samples must have another spiked sample analyzed. If this spike fails, the sample must be distilled and reanalyzed. If this spike fails, a post-distillation spike is analyzed."	Y☒ N☐
7	Minor	Y☐ N☒	4.5.4	4.5.4: The laboratory shall maintain a register of all subcontractors that it uses for tests and/or calibrations and a record of the evidence of compliance with this International Standard for the work in question. The evidence of compliance is not kept current, as implied NonMethod SOP 6055 3. For Babcock Labs, the certificated scope expired 1/31/14. For Michelson the certificate expired 8/31/13.	Y☒ N☐
	OFI	Y☐ N☒	4.8	4.8: Complaints QM 3.7 needs to identify procedural detail for complaints that do not lead to corrective action.	N/A
8	Major	Y☐ N☐	4.14.1B	4.14.1B : The internal audit program did not address all elements of the management system for 2014. For the 2014 internal audit, the management elements were reviewed by procedure review only, not through an audit of the practices as related to the those procedures.	Y☒ N☐
9	Minor	Y☐ N☒	5.11.A8	5.11.A8: The redesigned report has the ORELAP logo in near proximity to ILAC mark in conjunction with ANAB symbol.	Y☒ N☐

END OF REPORT

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 319 / ANAB NCR MS-RA-15-1

Regulatory Reference or Requirements: ISO 17025, Section 4.13.2.1

Responsible Personnel: Polly Barrowman/Walter Hsieh

Department/Method: Microbiology/Radiochemistry/Metals

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

N/A

Brief Description of Problem:

The laboratory does not retain records of original observations, derived data and sufficient information to establish an audit trail.

Examples include:

(a) The timer used for autoclave timer check is not identified on the autoclave log.
(b) There is no direct linkage in record to the positive and negative controls used for media verification. While the records for each batch identifies the controls used, the records for media verification was assumed by week of preparation, not by internal number.
(c) There are no records associated to the calibration of the conductivity meter used in radiochemistry.
(d) Radium 226/228 records do not indicate the oven drying of the barium sulfate precipitate.
(e) The CO-PRECIPITATION METHOD for GROSS α bench sheets do not include identification of reagents/carriers used.
(f) The "Mercury Digestion Prep Sheet" does not identify curve is not digested.

Root Cause of the Problem:

a) The use of a calibrated timer for timing test was only recently updated as a microbiology requirement. We currently do not have a policy to record the serial numbers for timers. All timers used for this test are purchased calibrated and disposed of prior to expiration. Certifications for each timer are filed and it was assumed that this was sufficient documentation. It was not apparent that the serial number needed to be included in the timing test logbook for traceability purposes.

b) The laboratory lacks policy for compliance with ISO 17025, 4.13.2.1. The current policy is acceptable for TNI accreditation. Department was only considering TNI audit requirements which do not look for additional traceability of organisms for media QC than the lab was already performing.

c) The laboratory has inconsistent implementation of its SOP on the calibration of the EC meter. Therefore, the log template does not include a place to record calibration of EC meter.

d) We do not have a policy to record the date and time of oven drying of the barium sulfate precipitate. Therefore the RA226/2289 GA prep-sheet does not include a space to document drying time.

e) The laboratory has inconsistent implementation of its receiving, assigning and documenting unique ID of its reagent/carrier on the prep sheet. Therefore the prep sheet for Gross Alpha by Co-precipitation method does not include space to record reagents information.

f) The mercury digestion prep sheet does not have a clear and consistent documentation with the actual practice. The prep sheet did not state that the calibration standards were not digested.

Corrective Action:

a) The timing test logbook has been updated to include the serial number of the timer used for this test.

b) A new logbook has been made that tracks the lot number of each organism by the week of the year. It also lists the start and end dates during which that organism was used for QC's and control cultures.

c) Calibration date, verification and expiration date have been inserted into the preservation log template. The information will be on each run as part of the record.

d) The GA method prep log has been updated with oven temperature, start and end times of drying cycle.

e) The Co-precipitation prep log has been updated to include all the reagent's information.

f) The mercury prep log has been updated to clearly state that the calibration standards were not digested.

See attachment 1 for updates of the above logs.

Completed by and Date: WBH 8/4/15 PAB 08/04/15

Prevention:

- Updated bench-sheet will be included in the SOP for annual review to ensure the laboratory retains record of the original observations, derived data to provide traceability and sufficient information to established audit trail
- SOP training record will be completed by 8/21/15 as final approval of the updated SOP.

Completed by and Date: WBH 8/4/15 PAB 08/04/15

Impact on Data Quality:

N/A

Completed by and Date: 8/4/2015

Data Disposition:

N/A

Completed by and Date: 8/4/2015

Client Notification:

N/A

PM Review Signature and Date: 8/4/2015

CAR Completion Due Date: 8/4/2015

Responsible for Corrective Action (Print Name and Signature):

QA Review Signature and Date: 8/4/2015

Quality Manager Signature and Date: Nilda B. Cx 08/03/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation. Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Attachment 1A.

AUTOCLAVE TIMING TEST

DATE	AUTOCLAVE	TIME IN	TIME OUT	EXPOSURE TEMP	EXPOSURE TIME	ACTUAL TIME	TIMER ID/SN	ANALYST
	MARKET FORGE #4							
	CONSOLIDATED #3							

DATE	AUTOCLAVE	TIME IN	TIME OUT	EXPOSURE TEMP	EXPOSURE TIME	ACTUAL TIME	TIMER ID/SN	ANALYST
	MARKET FORGE #4							
	CONSOLIDATED #3							

DATE	AUTOCLAVE	TIME IN	TIME OUT	EXPOSURE TEMP	EXPOSURE TIME	ACTUAL TIME	TIMER ID/SN	ANALYST
	MARKET FORGE #4							
	CONSOLIDATED #3							

DATE	AUTOCLAVE	TIME IN	TIME OUT	EXPOSURE TEMP	EXPOSURE TIME	ACTUAL TIME	TIMER ID/SN	ANALYST
	MARKET FORGE #4							
	CONSOLIDATED #3							

Acceptance Criteria

Temperature 121-124°C
Exposure Time 15 minutes +/- 0.5 minutes
Total Time not to exceed 45 minutes

Reviewed By:

Attachment 1.b.

Weekly Control and QC Culture Tracking Log

Year: 2015

Week	Start Date	End Date	E.coli ATCC 25922	E.aerogenes ATCC 13048	P.aeruginosa ATCC 10145	E.faecium ATCC 35667	S.marcescens ATCC 43862	A.viridans ATCC 10400	S. cerevisae ATCC9763	A.brasiliensis ATCC 16404
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Acceptance Criteria:
Slant is acceptable for one week of use only

Reviewed By:

MICRO FO0065 (07/14/15) Revision 1.0

Attachment 1.c

Preservation Check Log

Analysis Date:	
Analysis Time:	
Analyst:	

Control #	FO-RAD-16	
Version	2	7/9/15

EC Meter	Mettler SevenMulti		SN# 1228045058
EC Module	GmbH 8630		SN# 273610
Calibrated	7/8/15	wbh	Expired 10/7/15
10.0uS R#		EXP	
1413uS R#		EXP	

			900				GA	Preservation/ Re-checked		Comment
			Result							
Run #	Sample Number	Amount of samples	Reported umho/cm	Recovery	QC limits					
Mblank				0.0	<2.0					
10uS				0.0	+/-20%	900	GA			
1412uS				0.0	+/- 10%	pH <2	pH <2	Time	Time	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
CCB				0	<2.0	900	GA			
1412uS				0.0	+/- 10%	pH <2	pH <2			
11										
12										
13										
14										
15										
16										
17										

Attachment 1.d

Prep batch #	
RA226	
RA228	

RA226/228 by GA Method
Prep Sheet

Version 2 7/7/2015

Control # FO-RAD-4

Date:	
Analyst:	

Starting Prep Date:		
Precipitation starting date/time		
Filtration date/time		
Wathman GF/A Lot #		
Balance	A200S	

Reagen Log	R#	mL SX	mL MRL	mL LCS/MS
HNO3				
H2SO4				
HCL				
Ba Carrier				
RA226 Spiking Soultion				
RA228 Spiking Soultion				

	Log Number	Client	Sample ID	**Sampling Date**	**Volume (L)**	**Sampe pH**	**Filter** (Barium TW = 76.538 mg) Initial Wt. (g.)	Final Wt. (g)	Net Wt. (mg)
	Mblank								0.0
	MRL								0.0
	LCS1								0.0
	LCS2								0.0
1									0.0
MS									0.0
2									0.0
3									0.0
4									0.0
5									0.0
6									0.0
7									0.0
8									0.0
9									#VALUE!
10									#VALUE!
11									#VALUE!
12									#VALUE!
13									#VALUE!
14									#VALUE!
15									#VALUE!
16									#VALUE!
17									#VALUE!
18									#VALUE!
19									#VALUE!
20									#VALUE!
									#VALUE!

Pipette calibration

Sreial #	Volume	1st reading	2nd reading	Volume	1st reading	2nd reading
	5mL					
	1.0mL			0.400mL		
	0.3mL			0.665mL		

			Date/Time
Oven Model 6647	SN # 600964	In	
Oven Temp (°C)		Out	

Eurofins Eaton Analytical
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Gross Alpha & Beta Data Sheet

EPA 900

Analysis by Protean MPC 9604

Analyst: _____
Prep Analyst: _MJH_____
Review by: _____
Analytical Batch # _____

Batch: [ ]
Revision 6 7/7/2015
Control # FO-RAD-3

Run # #	Sample ID	Client Name	Sample ID	Sample pH	Sample EC umho/cm	Sample Volume (ml)	Planchets Δ Wt = <2.0mg) Planchet Weight (g)	Planchet + residue #1 (g)	Planchet + residue #2 (g)	Δ #1 #2	Planchet + residue #3 (g)	Planchet + residue #4 (g)	Residue C-A(1) (mg)	Analytical run Date/Time of Analysis	Det. Unit #1	Analytical run Date/Time of Analysis	Det. Unit #2
1	M-Blank	EEA	QC										0.0				
2	LCS1	EEA	QC										0.0				
3	LCS2	EEA	QC										0.0				
4													#VALUE!				
5													#VALUE!				
6													#VALUE!				
7													#VALUE!				
8													#VALUE!				
9													#VALUE!				
10													#VALUE!				
11													#VALUE!				
12													#VALUE!				
13													#VALUE!				
14													#VALUE!				
15													#VALUE!				
16													#VALUE!				
17													#VALUE!				
18													#VALUE!				
19													#VALUE!				
20													#VALUE!				
21													#VALUE!				
22													#VALUE!				
23													#VALUE!				
24	MS												#VALUE!				
25	DUP												0.0				
26	DUP												0.0				
													0.0				

LCS/MS
Alpha True Value 33.84pCi/L Lot # wbh150126-1 0.10ml/150ml DI H2O
Beta True Value 34.19pCi/L Lot # mal150120-1 0.10ml/150ml DI H2O
Nitric Acid Lot #

EC	Vol(mL) α and β	EC	Vol(mL) β only	EC	Vol(mL) β only	EC	Vol(mL) β only
<450	150	800	150	1300	100	2200-2500	50
500	125	900	125	1400	75	3000-4000	30
600	100	1000	125	1600	75	12000	25
700	90	1100	100	1800	75		

			Date/Time	Date/Time (2nd)
Oven Model 6647	SN # 600964	In		
Oven Temp (°C)		Out		

Attachment 1.d

Attachment 1.e)

CO-PRECIPITATION METHOD GROSS ALPHA PREP SHEET
EPA 7110C

Date:	
Analyst:	
Prep Batch #	

Control #	FO-RAD-10	
Version	2	7/9/2015

	Sample ID	Client Name	Sample Description	Sample Volume	Sample pH	Comments
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						

Pipettes:	Vol.	
N45399	100uL	
2012045 -	1.0ml	
1348227 -	5.0ml	
1348227 -	10.0 ml	

Std Used:_LCS: mae-141003-1
Spike amount: 0.10ml/500ml sample
0.05ml/500ml sample MDL

Reagent/Stds	R#	Exp date	Vol (mL)
2N H_2SO_4			20mL
Barium Carrier			1mL
Bromocresol Purple			1mL
Iron Carrier			1mL
Paper Pulp			5mL
Diluted Detergent			
6N NH_4OH			

			Date/Time
Oven Model 6647	SN # 600964	In	
Oven Temp (°C)		Out	

Attachment 1.F

Mercury Digestion Prep Sheet

Date: Time Start: Start Temperature: 9

Analyst: Time End: End Temperature:

Thermometer: 403 6/1/2015

Digest Cup Used: Environmental Express Lot 1501179 pH checked by Metals

Version 5 07/20/15 Control # FO-ME-2

	Quality Control	EEA R#	Exp Date	Conc.	Spike
Undigested	Calib Blank/ICB/CCB	NA	NA	NA	NA
	0.2 PPB	NINA150415-2	8/12/2015	100ppb	100uL
	0.5 PPB	NINA150415-2	8/12/2015	100ppb	250uL
	1.00 PPB (CCV1)	NINA150415-2	8/12/2015	100ppb	0.5mL
	2.00 PPB (CCV2)	NINA150415-2	8/12/2015	100ppb	1.0mL
	5.0 PPB	NINA150415-2	8/12/2015	100ppb	2.5mL
	ICV 2.5	NINA150415-4	8/12/2015	150ppb	0.833mL
Digested	LCS/MS 1.5PPB	NINA150415-4	8/12/2015	150ppb	0.5mL

Batch #	Sample ID Number	Client	Sample ID	Vol	pH
1	MBLK 1			50mL	< 2
1	MRL 1 0.2ppb			50mL	< 2
1	LCS 1 1.5ppb			50mL	< 2
1	LCSD 1 1.5ppb			50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
1				50mL	< 2
2	MBLK 2			50mL	< 2
2	MRL 2 0.2ppb			50mL	< 2
2	LCS 2 1.5ppb			50mL	< 2

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 320 / ANAB NCR MS-RA-15-2

Regulatory Reference or Requirements: ISO 17025, Section 5.4.1

Responsible Personnel: Walter Hsieh/Ali Haghani

Department/Method: Inorganics/ LCMS

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

The laboratory does not have instructions on the handling and preparation of items for testing, where the absence of such instructions could jeopardize the results of tests.

(a) SOP 2374 09) 1. States: "Energy Calibrations states: Efficiency calibration or calibration verification should be done annually." This allows for optionality which does not identify the criteria for calibration or verification

(b) SOP2374 09) 4 B 4 references "excessive background", but does not define the criteria for excessive.

(c) The SOP for radon, Radiochem SOP 2372, does not defined how the quality controls are prepared.

(d) Endothall SOP, LCMS-SOP2445 11.B states "Isotope dilution Standard (IDS) should be used for analysis of Endothall." implying optionality.

Root Cause of the Problem:

a) The laboratory lacks policy in section 13.7 of QM version 38 of 'should' and 'must/shall' for the written SOPs and instructions.

b) The laboratory lacks policy and control limit acceptance criteria for instrument background for Ra 226/228 in SOP 2374.

c) The SOP does not have complete instruction on how to prepare 10,000 pCi/L Calibration Factor Check Standard(Hi) in SOP 2372.

d) Section 13.7 of our QM version 38 does not have document policy on the use of 'should' and 'must/shall' for the written SOPs and instructions.

Corrective Action:

a) QM version 38, section 13.7 will be updated to include the use of 'should' and 'must/shall' to state mandatory requirements in SOPs, instructions and policies.
SOP 2374 section 9)2 for Ra226/228 analysis was updated from 'should' to must' to state the mandatory requirement for the annual efficiency calibration or calibration verification.

b) SOP 2374 section 9.4.b.4 for Ra 226/228 was updated to remove the word 'excessive' and replace it with "outside the control limit for background measurement."
Control limit and warning limit will be calculated for the detector background measurements.

c) SOP 2372 for Radon analysis was updated to include the procedure on how to prepare 10,000pCi/L calibration factor standard.

d) Endothall LCMS SOP #2445 section 11.B was updated from 'should' to 'must' to state the mandatory requirement for the use of the isotope dilution standards (IDS) in the analysis.

All SOPs listed above have been reviewed and updated. They will be published by 8/14/15.

Completed by and Date: WBH 8/4/15 ALI 8/4/15 AIE 8/4/2015

Prevention:

All laboratory staff will be issued revised QM to include policy on the use of should' and 'must/shall' to ensure that mandatory requirement in SOPs, instructions are clear on how to handle preparation of the standards, calibration, QC criteria and corrective actions. All training documentation of the revised QM and the revised SOPs will be completed by 8/30/15.

Completed by and Date: WBH 8/4/15 ALI 8/4/15 AIE 8/4/2015

Impact on Data Quality:

N/A

Completed by and Date: 8/4/2015

Data Disposition:

N/A

Completed by and Date: 8/4/2015

Client Notification:

N/A

PM Review Signature and Date: ~~8/10~~ 8/4/2015

CAR Completion Due Date: 8/4/2015

Responsible for Corrective Action (Print Name and Signature):

QA Review Signature and Date: 8/4/2015

Quality Manager Signature and Date: Nilda B. Cox 08/03/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation.

Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 321 / ANAB NCR# MS-RA-15-3

Regulatory Reference or Requirements: ISO 17025, Section 5.4.1

Responsible Personnel: Walter Hsieh/Polly Barrowman/Charles Grady

Department/Method: Microbiology/Inorganics/Radiochemistry/Metals/IC/GCMS

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

All instructions, standards, manuals and reference data relevant to the work of the laboratory are not kept up to date.

Examples include, but are not limited to:

(a) The TSS SOP, Wet Chem SOP 2463, does not require the observed MRL check sample analyzed with each batch.

(b) The TDS SOP, Wet Chem SOP 2464, does not require the observed MRL check sample analyzed with each batch.

(c) The Legionella SOP, Micro SOP3970, does not clearly reflect how the E Coli negative control is evaluated with the negative control media.

(d) The SOP for RA226/228, Radiochem SOP 2374, does not require the observed MRL samples analyzed with each batch.

(e) The SOP for radon, Radiochem SOP 2372, does not require the observed use of the "HI" calibration verification standard observed at the beginning and end of the batch.

(f) The SOP for ICPMS, Metals SOP2364, does not require the observed 4ppb Cr and 2ppb Se QC checks run daily.

(g) The SOP for ICP, Metals SOP2363, does not require the observed ½ MRL check sample analyzed with each batch.

(h) The SOP for hexavalent chromium, IC SOP2453, does not reference use of the observed "Buffer Blank".

(i) The SOP for hexavalent chromium, IC SOP 2453, does not reference the observed use of 2 levels of MRL checks.

(j) The EPA 350.1 SOP, WetChem SOP 2480, requires that manual distillation is not required if comparability data or representative samples are on file to show that the distillation step is not necessary. This data is not available.

(k) The SOP for EPA 525.2, GCMS SOP2396, Section 11 P requires a quarterly midlevel extracted sample, which is not performed.

(l) The SOP for Endothall, GCMS SOP2414, does not require the observed use of the MRLL check sample analyzed with each batch.

Root Cause of the Problem:

a, b, d, e, f, g, h,i) SOPs did not reflect the routine practice on the bench. Required QCs analyzed on a routine basis are not documented in the SOPs. The SOPs were not thoroughly reviewed by the laboratory to ensure consistency with the bench practices.

c) The SOP states that E.coli is a negative control for Legionella, but it fails to explain that the bacteria will grow on all of the presumptive and confirmed media while Legionella will not. Root cause is a lack of understanding of what information needed to be included for this negative control to be valid.

j) The implementation of the SOP is inconsistent since the analyst did not perform manual distillation but comparability data of un-distilled and distilled requirement for the samples were not available. The SOP requires proving that distillation is not required before analyzing samples without distillation

k) Two LFB/LCS that are from a second source spiked at 2.0 ppb are currently extracted to serve as QCS and they are done in every batch of 20 samples or less. Method 525.2 section 9.9 requires a second source QCS run quarterly, but it does not specify the spike concentration must be at mid-level. EPA certification manual for drinking water section 7.2.2 requires QCS at least once per quarter and should be at the same concentration range as the drinking water calibration curve. (Our calibration range is 0.01 to 10 ug/L). Since the majority of the drinking water sample results are at the low end of the curve, external source QCS/LFB/LCS/LCBD/LCSD are run at 2.0 ppb instead of at mid-level to ensure that the laboratory generates reliable data at the low end.

l) The MRLLW was added to show the instrument would see the MRL level in samples extracted at a dilution. It was a study that the laboratory was performing before we drop our MRL level to a lower limit.

Corrective Action:

a, b, d, e, f, g, h, i, l) SOPs were updated to reflect the routine practices. These SOPs have been reviewed and updated and will be approved by 8/14/2015.

c) The SOP has been updated to reflect expected E.coli results as well as to require that sterility blank at each step of the test. In addition, once media has arrived, a set of sterility blanks will be run through the entire test to ensure complete method validation.

j) A handful of samples from different clients that we normally analyze for will be sent to another laboratory for comparison study. We are looking for a laboratory that is certified with distillation processes to run a comparison study for the ammonia testing to validate all our results.

We will remove section 11.B.3 from the SOP. Gas Diffusion method by OI instrument will be brought online through certification process and will be used to replace the distillation method. New SOP will be written for the Gas Diffusion method. We will apply for this method to the states and ISO as part of the scope expansion.

Estimated completion of this SOP is 8/30/15

k) SOP for 525.2 (#2396) section 11.P was updated to state that the laboratory performs extracted QCS in each batch and spiked at 2.0 ppb (low-level, the same as LCS and LCS2) instead of at 5.0 ppb (mid-level).

l) SOP for Endothall, #2414 will be updated to include the new MRL level.

Completed by and Date:
WBH 8/4/15 PAB 08/04/15 CWG 8-4-15

Prevention:

- All updated SOPs will be approved by 08/14/15
- All training documentation of the revised SOPs will be completed by 8/30/2015.
- Review of supervisors and analysts must include the consistency of the SOP documentation and the bench practice, including all QC requirements.
- Internal audit will be updated to include review of data package deliverables to ensure consistency with the SOP documentation

Completed by and Date:
WBH 8/4/15 PAB 08/04/15 CWG 8-4-15

Impact on Data Quality:

N/A

Completed by and Date: 8/4/2015

Data Disposition:

N/A

Completed by and Date: 8/4/2015

Client Notification:

N/A

PM Review Signature and Date: 8/4/2015

CAR Completion Due Date: 8/4/2015

Responsible for Corrective Action (Print Name and Signature):

QA Review Signature and Date: 8/4/2015

Quality Manager Signature and Date: Nelda B. Cox 08/03/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation.

Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 322 / ANAB NCR # MS-RA-15-4

Regulatory Reference or Requirements: ISO 17025, Section 5.5.8

Responsible Personnel: Walter Hsieh

Department/Method: Radiochemistry

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

Equipment under the control of the laboratory and requiring calibration is not consistently identified to indicate the status of calibration, including the date when last calibrated and the date or expiration criteria when recalibration is due.

The conductivity meter for radiochemistry is not labeled with calibration status. Note: the radiochemistry technicians do verification of meter, but other analysts perform the calibration.

Root Cause of the Problem:

EC meter calibration procedures were not defined in the SOP.

Corrective Action:

1. The EC meter was calibrated on 7/8/2015 and labelled with the calibrated status.
   - See Attachment 4.1 for a picture of the EC meter labelled with calibration status
2. The RAD preservation log template has been updated with EC calibration and expiration date information.
   - See Attachment 4.2 for a copy of the Preservation Check Log updated with EC meter calibration info at the top right corner.

Completed by and Date: WBH _____ 8/4/15

Prevention:

1. The SOP #2373 was updated with the calibration procedure in Section 10 and the new Preservation Check Log as Attachment IX.
2. All EC calibration info will be recorded in the Preservation Check Logs for traceability.

Completed by and Date: WBH 8/4/15

Impact on Data Quality:

N/A

Completed by and Date: 8/4/2015

Data Disposition:

N/A

Completed by and Date: Y 8/4/2015

Client Notification:

N/A

PM Review Signature and Date: 8/4/2015

CAR Completion Due Date: 09/03/2015

Responsible for Corrective Action (Print Name and Signature):

QA Review Signature and Date: 8/4/2015

Quality Manager Signature and Date: Nilda Cox 08/03/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

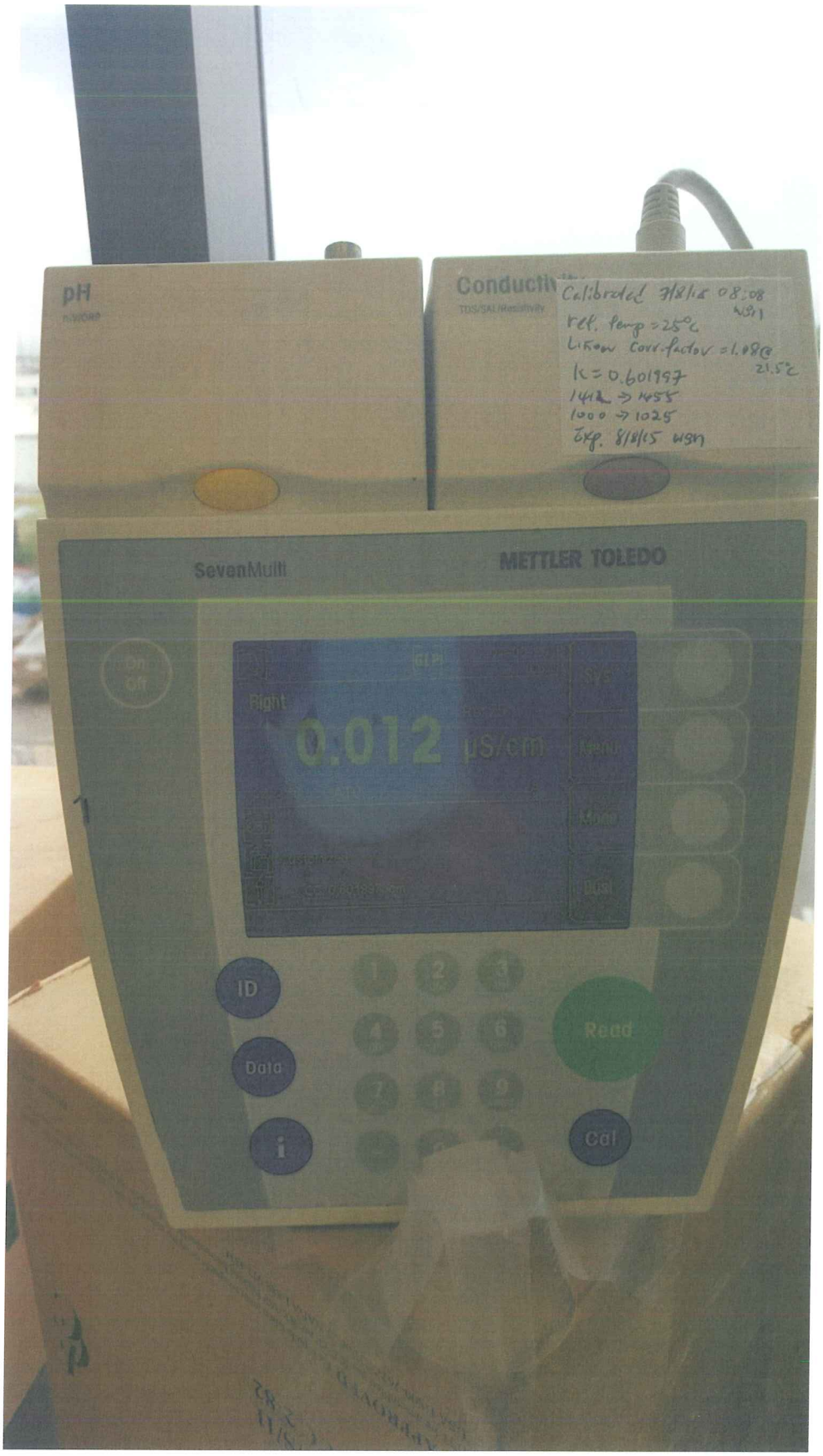
Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation.

Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Attachment 4.1



Preservation/EC Check Log

Analysis Date:	
Analysis Time:	
Analyst:	

Control #	FO-RAD-16	
Version	2	7/9/15

EC Meter	Mettler SevenMulti		SN# 1228045058
EC Module	GmbH 8630		SN# 273610
Calibrated	7/8/15	wbh	Expired 10/7/15
10.0uS R#		EXP	
1000uS R#		EXP	

			900				GA	Preservation/ Re-checked		Comment
			EC Result							
Run #	Sample Number	Amount of samples	Reported umho/cm	Recovery	QC limits					
Mblank				0.0	<2.0					
10uS				0.0	+/-20%	900	GA			
1000uS				0.0	+/- 10%	pH <2	pH <2	Time	Time	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
CCB				0	<2.0	900	GA			
1000uS				0.0	+/- 10%	pH <2	pH <2			
11										
12										
13										
14										
15										
16										
17										

Attachment 4.2

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 323 / ANAB NCR# MS-RA-15-5

Regulatory Reference or Requirements: ISO 17025, Section 4.3.2.2.a

Responsible Personnel: Walter Hsieh

Department/Method: Radiochemistry

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

The document control procedure adopted does not ensure authorized editions of appropriate documents are available at all locations where operations essential to the effective functioning of the laboratory are performed.

SOP Radiochemistry PR2374 is not available at point of use. (Rad 226-Rad 228)

Root Cause of the Problem:

All RAD computers are isolated to prevent electronic interference. Therefore there is no direct access to D4 with any of the instrument computer. A controlled hardcopy of SOP in local area is not a preferred method to access the SOP.

Corrective Action:

A computer with wireless access will be stationed in the GAMMA room so the analyst can access D4 SOPs through this computer. Estimated completion date will be 8/30/15.

Completed by and Date: WBH 8/3/15

Prevention:

In the new facility, each laboratory space will have access to the SOP via D4. We will position the computer in such away to prevent electronic interferences.

Completed by and Date: WBH 8/3/15

Impact on Data Quality:

N/A

Completed by and Date: Nilda B. Cox 08/03/2015

Data Disposition:

N/A

Completed by and Date: Nilda B Cox 08/3/2015

Client Notification:

N/A

PM Review Signature and Date: [illegible] 8/4/2015

CAR Completion Due Date: 8/4/2015

Responsible for Corrective Action (Print Name and Signature):

QA Review Signature ~~and~~ Date: [illegible] 8/4/2015

Quality Manager Signature and Date: Nilda B. Cox 08/3/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation. Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 325 / ANAB NCR# MS-RA-15-6

Regulatory Reference or Requirements: ISO 17025, Section 4.9.1

Responsible Personnel: Walter Hsieh

Department/Method: Inorganics

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

While the laboratory has a policies and procedures that shall be implemented when any aspect of its testing work, or the results of this work, do not conform to its own procedures or the agreed requirements of the customer. These were not to be implemented when required.

For example:

(a) The Sample ID's 201506030382-83 for Hexavalent Chromium were flagged as non-readable for pH using strips. The samples were not checked by pH probe. The samples were run past hold time for non-preserved samples, but not flagged as such on report.

(b) The batch INRF 062215 KXS run on June 22, 2015 for NH_3 had all 3 sets of MS and MSD samples fail the 90%-110% criteria.

Section 11 B 3 of the SOP2480 states, "matrix spike failures on un-distilled samples must have another spiked sample analyzed. If this spike fails, the sample must be distilled and reanalyzed. If this spike fails, a post-distillation spike is analyzed."

Root Cause of the Problem:

a. No detailed procedure in the SOP on pH measurement using pH paper and allowance to use pH probe when sample matrix requires the use of pH probe, rather than pH paper.

   In this particular sample, the matrix seems to quench the preservatives for the test. The lead chemist asked the chemist to add more preservatives, but the sample quenched the preservatives as well. She informed the ASM of the matrix issue. The ASM is aware of the matrix issue and requested to run the sample as is. Therefore the analyst ran

the sample as is and not flagged the sample with Q3 (Sample received with improper chemical preservation) initially since the matrix caused the quenching. Proper documentation training is needed.

b. Due to limitation of current analytical equipment capability, distillation of spiked sample was not possible as described in Section 11.B.3.

Corrective Action:

a. Updated the SOP to include the testing of sample pH with pH probe and meter when testing with pH stripe is not possible due to sample matrix.

The chemist, lead chemist and supervisor are retrained to always add a comment of the ASM's decision when there is a matrix issue for the test.

b. A handful of samples from different clients that we are normally analyzing for will be sent to another laboratory for comparison study. We are looking for a laboratory that is certified with distillation process to run a comparison study for the ammonia testing to validate all our results.

We will remove the section 11.B.3 from the SOP. Gas diffusion method by OI instrument will be brought online through certification process. It will be used to replace the distillation method. New SOP will be written for the Gas diffusion method. We will apply for this method to the states and ISO as part of the scope expansion.
Estimated completion of this SOP is 8/30/15

Completed by and Date: WBH 8/3/15

Prevention:

The analyts have been retrained and the SOP has been updated/will be written to prevent future occurrences.

Completed by and Date: WBH 8/3/15

Impact on Data Quality:

N/A

Completed by and Date: 8/4/2015

Data Disposition:

N/A

Completed by and Date: 8/4/2015

Client Notification:

N/A

PM Review Signature and Date: 8/4/2015

CAR Completion Due Date: 8/4/2015

Responsible for Corrective Action (Print Name and Signature):

QA Review Signature and Date: 8/4/2015

Quality Manager Signature and Date: Nilda B. Cruz 08/03/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation. Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Attachment 6

Sample #	Client	Sample ID	Hold
201507310214	ELDORADOID-CA	Forebay Inlet	27-Aug
201507310215	ELDORADOID-CA	Forebay Outlet	27-Aug
201506270005	CORONA	3PERM1:GRAB	24-Aug
201506270006	CORONA	3PERM2:GRAB	24-Aug
201506270036	CORONA	2EFF:COMP	24-Aug
201506270038	CORONA	2PRI:COMP	24-Aug
201506270039	CORONA	2AER:GRAB	24-Aug
201506270043	CORONA	1BEFF:COMP	24-Aug
201506270045	CORONA	1APRI:COMP	24-Aug
201506230749	CORONA	1BEFF:COMP	23-Aug
201506230747	CORONA	1BEFF:COMP	22-Aug
201506270077	CORONA	1BEFF:COMP	25-Aug
201506270099	CORONA	1APRI:COMP	25-Aug
201507280471	MESAWATER	Combined NF Permeate	25-Aug
201507280472	MESAWATER	Degasifier Effluent	25-Aug
201507290087	KEIKAVENTURES	7243-1a-2015 Agua Planta Acueducto Naranjo	22-Aug
201507290085	KEIKAVENTURES	7237-1b-2015 Pozo Planta Empacadora agua Ingreso a pila de lavado de	19-Aug
201507290086	KEIKAVENTURES	7238-1b-2015 Pozo Planta Empacadora agua Ingreso a pila de lavado de	19-Aug
201506270003	CORONA	3INF:COMP	26-Aug
201506270004	CORONA	3INF:GRAB	26-Aug
201506270011	CORONA	3PERM1:GRAB	26-Aug
201506270012	CORONA	3PERM2:GRAB	26-Aug
201506270057	CORONA	DES:GRAB	26-Aug
201506270070	CORONA	2EFF:COMP	26-Aug
201506270072	CORONA	2PRI:COMP	26-Aug
201506270073	CORONA	2AER:GRAB	26-Aug
201506270079	CORONA	1BEFF:COMP	26-Aug
201506270100	CORONA	1APRI:COMP	26-Aug
201506150132	TRACY	Production Well 8	25-Aug
201506270081	CORONA	1BEFF:COMP	27-Aug
201506270101	CORONA	1APRI:COMP	27-Aug
201507270166	NEWHALL	N-1 Turnout	27-Aug
201507270167	NEWHALL	Well 2	27-Aug
201507270168	NEWHALL	Well 7	27-Aug
201507270170	NEWHALL	N-4 Turnout	27-Aug
201507270171	NEWHALL	Tank 2	27-Aug
201506270014	CORONA	3PERM1:GRAB	28-Aug
201506270015	CORONA	3PERM2:GRAB	28-Aug
201506270074	CORONA	2PRI:COMP	28-Aug
201506270075	CORONA	2AER:GRAB	28-Aug
201506270083	CORONA	1BEFF:COMP	28-Aug
201506270102	CORONA	1APRI:COMP	28-Aug
201508010120	CALWATER-MISC	Raw Water	28-Aug
201507310329	TRACY	EFF-001	26-Aug
201508030108	MESAWATER	Combined NF Permeate	31-Aug
201508030109	MESAWATER	Degasifier Effluent	31-Aug
201506270087	CORONA	1BEFF:COMP	30-Aug

201506270085	CORONA	1BEFF:COMP	29-Aug
201505270045	CDI	915-946 Municipal Source	28-Aug
201507100017	PEPSI-MEA	Raw Water	24-Aug
201507310095	WRD	550013	27-Aug
201507310096	WRD	550020	27-Aug
201507290112	ECONITY-CA	Feed (Raw)	25-Aug
201507290113	ECONITY-CA	Permeated	25-Aug
201507290135	WEST-YOST-CA	DWWSP-20150728	25-Aug
201507290338	LEGEND	5072346-01	24-Aug
201507290174	AMSAMOA	Utulei STP Influent	24-Aug
201507290175	AMSAMOA	Utulei STP Effluent	24-Aug
201507290176	AMSAMOA	Tafuna STP Influent	24-Aug
201507290177	AMSAMOA	Tafuna STP Effluent	24-Aug
201507310225	PEPSI-MEA	TANTA AF Product LOT# L15 207TN1 13:13 1.5L	28-Aug
201508030104	CENTRAL-AZ	MCKELLIPS	31-Aug
201508030106	CENTRAL-AZ	LAKE PLEASANT PARKWAY	31-Aug
201508030048	PHOENIX-LF	19N-315	31-Aug
201508030053	PHOENIX-LF	19P-315	31-Aug
201508030055	PHOENIX-LF	19Q-315	31-Aug
201507300285	PEPSI-EU	Sherrizone Aqua Minerale	27-Aug

Total Count: 69 Prep Count: 0

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 326 / ANAB NCR # MS-RA-15-7

Regulatory Reference or Requirements: ISO 17025, Section 4.5.4

Responsible Personnel: Jaclyn Contreras/Debbie Frank

Department/Method: Subcontracting

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

The laboratory shall maintain a register of all subcontractors that it uses for tests and/or calibrations and a record of the evidence of compliance with this International Standard for the work in question.

The evidence of compliance is not kept current, as implied Non Method SOP 6055 3.

For Babcock Labs, the certificated scope expired 1/31/14.
For Michelson the certificate expired 8/31/13.

Root Cause of the Problem:

1. Our project with Babcock Laboratory is only for one client as it is part of our contract with this particular client. The only certification needed for this contract is California ELAP certification and not ISO certification.
2. The laboratory has not used Michelson Laboratory in the past year as the specific need for this subcontractor was for an analysis in a specific state. Therefore the review of their certification was not deemed necessary as the vendor was no longer used.
3. The Approved Subcontractor list showed to the auditor was a list of all subcontracting laboratories that the Eurofins Eaton Laboratory has ever used in the past and was not differentiated between active and inactive subcontracting vendors. Subcontracting vendors that had expired were not approved again until the need to use that subcontractor arose.

Corrective Action:

1. The laboratory has requested and updated our server with the most current certification of Babcock Laboratory.

2. The laboratory has requested and updated our server with the most current certification of Michelson Laboratory.
3. EEA will keep a master list of all potential subcontractors on hand as a reference for locating vendors (called the comment list), but will maintain a separate approved vendor list that only contains active, approved subcontracting laboratories that can be used in emergency situations for times when EEA must subcontract accredited testing. This list is created and maintained by the current Subcontracting Coordinator along with the QA department. The list will differentiate the vendors by their accreditation (ISO 17025, TNI, state, etc) in order to validate that our lab is using an ISO accredited laboratory for the tests that we need, when available.

Completed by and Date: DEB Debbie Frank 8/5/15

Prevention:
By managing the list in a means that separates active subcontracting clients from inactive clients, EEA should not have clients listed that do not have current certifications.

Due to the complexity of potential subcontracting and the need to locate ISO accredited laboratories and verify multi-state accreditation on a per-analyte basis, the EEA QA department will seek an additional staff member to assist in maintaining this list, in addition to other duties.

Planned Implementation Date: 8/31/15

Completed by and Date: DEB Debbie Frank 8/5/15

Impact on Data Quality:

N/A

Completed by and Date: STL 8/5/15

Data Disposition:

N/A

Completed by and Date: STL 8/5/15

Client Notification:

N/A

PM Review Signature and Date: N/A

CAR Completion Due Date: 8/5/15

Responsible for Corrective Action (Print Name and Signature):

Debbie Frank Debbie Frank

Nilda Cox Nilda Cox

QA Review Signature and Date: 8/5/15

Quality Manager Signature and Date: Nilda Cox 08/05/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation.

Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Attachment 7.1

American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

BABCOCK LABORATORIES, INC.
DBA EDWARD S. BABCOCK AND SONS, INC.
6100 Quail Valley Court
Riverside, CA 92507
Stacey Fry Phone: 951 653 3351 x238
sfry@babcocklabs.com

BIOLOGICAL

Valid To: January 31, 2016 Certificate Number: 3232.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the laboratory's compliance with the A2LA Food Testing Program Requirements contained within 2010 "*AOAC International Guidelines for Laboratories Performing Microbiological and Chemical Analyses of Food and Pharmaceuticals*"), accreditation is granted to this laboratory to perform the following tests on bottled beverages and food products:

Test	Test Method
Aerobic Plate Count	AOAC 966.23
Aerobic Plate Count (Petrifilm)	AOAC 990.12
Escherichia coli O157:H7 (VIDAS)	AOAC RI 060903
Lactic Acid Bacteria	CMMEF 4th Edition, Chapter 19.571
Listeria (VIDAS)	AOAC 999.06
Salmonella (VIDAS)	AOAC 996.08
Staphylococcus aureus (Petrifilm)	AOAC 2003.07
Total Coliform/*E. coli*	BAM-FDA 8th Edition, Chapter 4
Total Coliform/*E. coli* (Petrifilm)	AOAC 991.14
Yeast & Mold (Petrifilm)	AOAC 997.02

5301 Buckeystown Pike, Suite 350 | Frederick, Maryland 21704-8373 | Phone: 301 644 3248 | Fax: 301 662 2974 | www.A2LA.org

American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

BABCOCK LABORATORIES, INC.
DBA EDWARD S. BABCOCK AND SONS, INC.

Riverside, CA

for technical competence in the field of

Biological Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 27th day of December 2013.

President & CEO
For the Accreditation Council
Certificate Number 3232.01
Valid to January 31, 2016

For the tests to which this accreditation applies, please refer to the laboratory's Biological Scope of Accreditation.

Attachment 7.1

Attachment 7.2

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

MICHELSON LABORATORIES, INC.
6280 Chalet Drive
Commerce, CA 90040
Dennis Mayeshiro Phone: 562 928 0553 x135

CHEMICAL

Valid To: May 31, 2017 Certificate Number: 2074.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the laboratory's compliance with the A2LA Food Testing Program Requirements, containing the *2010 "AOAC International Guidelines for Laboratories Performing Microbiological and Chemical Analyses of Food and Pharmaceuticals"*), accreditation is granted to this laboratory to perform the following tests on food products. Additionally, accreditation is granted to this laboratory to perform testing in support of the "*Consumer Product Safety Improvement Act of 2008*" (CPSIA) on paint chips and children-associated substrates.

TEST	INTERNAL METHOD	TEST METHOD(S)
Chemistry Analysis		
Ascorbic Acid (Vitamin C) in Food		AOAC 967.21(Modified)
Ash		AACC 08-03; AOAC 923.03
Calories (Calculation)		USDA Nutritional Analysis Methods, 1996 Appendix B, A1
Carbohydrates (Calculation)		USDA Nutritional Analysis Methods, 1996 Appendix B
Fat, Acid Hydrolysis	ML-CHEM-04	AOAC: 922.06(Modified), 948.15(Modified)
Fat, Soxhlet	ML-CHEM-05	AOAC: 920.39(Modified), 960.39(Modified)
Fiber, Total Dietary	ML-CHEM-03	AACC 32-07(Modified); AOAC 991.43(Modified)
Moisture, Oven 101°C	ML-CHEM-06	AACC 44-15A; AOAC 950.46(Modified); AOCS
Moisture, Oven 135°C	ML-CHEM-06	AACC 44-19; AOAC 950.46(Modified)
pH		AOAC 981.12

5202 Presidents Court, Suite 220 | Frederick, MD 21703-8398 | Phone: 301 644 3248 | Fax: 240 454 9449 | www.A2LA.org

Attachment 7-2

TEST	INTERNAL METHOD	TEST METHOD(S)
Phosphorus (P), Total, in Food (Gravimetric)		AOAC 962.02(Modified)
Protein, LECO		AOAC: 992.15, 992.23
Salt (NaCl)		AOAC: 935.47, 937.09, 941.18; USDA FSIS 1993, SLT 3(Modified)
Sulfite in Food		AOAC 990.28(Modified) Optimized Monier – Williams Method
Water Activity		AquaLab TEV; AOAC 978.18
Instrumentation Analysis		
Benzoic Acid / Sorbic Acid Screen		AOAC 983.16
Carbamate Screen		CDFA 1991, Luke
Chloramphenicol in Seafood		Neogen Veratox®
Cholesterol		AOAC 976.26(Modified)
Colors, Artificial		AOAC: 988.13; JAOAC 46: No 6, pgs 1022-1029 (1963)
Fatty Acid Profile	ML-INS-01	AOAC 996.06(Modified)
Fluoroquinolones by HPLC		US FDA LIB No. 4408
Fluoroquinolones by LC/MS/MS		US FDA LIB No. 4108
Gentian Violet / Leuco Gentian Violet by HPLC		US FDA LIB No. 4395
Histamine	ML-INS-03	AOAC 977.13(Modified)
Malachite Green / Leuco Malachite Green by HPLC		US FDA LIB No. 4395
Melamine and Cyanuric Acid (LC/MS/MS)		US FDA LIB No. 4421
Methyl Mercury		AOAC 988.11
Nitrofuran Metabolites 3-amino-2-oxazolidinone (AOZ) 5-methyl-morpholino-3-amino-2-oxazolidinone (AMOZ) Semicarbazide (SC) 1-aminohydantoin (AH)		US FDA LIB No. 4448(Modified)
Organo Halide Screen		CDFA 1991 Pub. or Luke

Peter Rhyne

Attachment 7.2

TEST	INTERNAL METHOD	TEST METHOD(S)
Organo Phosphate Screen		CDFA 1991 Pub. or Luke
Pesticides in Foods by QuEChERS -Buprofezin -Carbendazim -Chlorpyriphos -Diazinon -Imazalil -Isoprothiolane -Pirimiphos-methyl, -ethyl -Pyrimethanil -Tricyclazole		AOAC 2007.01; LIB 4464; LIB 4465; QuEChERS
Propionic Acid		AOAC 928.08; JOAC 55:1024-26; JFP Vol. 46#4 pg. 284-6; USDA; PRI
Sugar Profile	ML-INS-17	AOAC: 977.20(Modified) , 982.14(Modified)
Vitamin A, Beta Carotene		AOAC 974.29(Modified)
Vitamin A, Retinol		AOAC 974.29(Modified)
Vitamin E		AOAC: 969.40(Modified), 971.30 (Modified)
Mercury (Hg), Total, in Food	ML-MET-10	EPA 245.1(Modified); AOAC 990.08 (Modified)
Metals Analysis by ICP (As, Ca, Cd, Fe, K, Na, Pb)		AOAC: 984.27(Modified), 990.08 (Modified)
Metals Analysis by ICP/MS (As, Cd, Hg, Pb)	ML-MET-12	AOAC 993.14(Modified)

Field Sampling

SAMPLING	TEST METHOD(S)
FDA Detained Products	ORA Laboratory Manual Section 7.2
Frozen Meat Products	MICA Guidelines, March 15, 2012

Peter Nlogu

Attachment 4.a

Consumer Product Safety Commission
Code of Federal Regulations, Title 16, Part 1303

TEST	TEST METHOD(S)
Lead (Pb) in Paint	16 CFR 1303 (using CSPC-CH-E1003-09.1 and ASTM: E1645, E1613) (Modified)
Phthalates Dibutyl Phthalate (DBP) Di-(2-ethylhexyl)phthalate (DEHP) Benzyl Butyl phthalate Di-n-octyl Phthalate (DnOP) Diisononyl phthalate (DINP) Diisodecyl phthalate (DIDP)	CPSC-CH-C1001-09.3
Total Lead (Pb) in Non-Metal Children's Products	CPSC-CH-E1002-08.1(Modified); EPA 3051A(Modified)

Peter Nhyen

Accredited Laboratory

A2LA has accredited

MICHELSON LABORATORIES, INC.

Commerce, CA

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION
CORPORATE SEAL 1978
DISTRICT OF COLUMBIA
A2LA

Presented this 30th day of June 2015.

President & CEO
For the Accreditation Council
Certificate Number 2074.01
Valid to May 31, 2017

For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.

Attachment 4.2

Attachment 4.2

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

MICHELSON LABORATORIES, INC.
6280 Chalet Drive
Commerce, CA 90040
Dennis Mayeshiro Phone: 562 928 0553 x135

BIOLOGICAL

Valid To: May 31, 2017 Certificate Number: 2074.02

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the laboratory's compliance with the A2LA Food Testing Program Requirements, containing the 2010 *"AOAC International Guidelines for Laboratories Performing Microbiological and Chemical Analyses of Food and Pharmaceuticals"*), accreditation is granted to this laboratory to perform the following tests on food products:

TEST	**TEST METHOD(S)**
Microbiology Analysis	
Airborne Count – Bacteria, Yeast & Mold	CMMEF Ch. 3
Anaerobic Plate Count	CMMEF Ch. 6
Bacillus cereus	AOAC 980.31; FDA BAM Ch.14
Campylobacter	Biomerieux VIDAS CAM; AOAC RI 051201
Campylobacter Confirmation	FDA BAM Ch. 7
Coliform / *Escherichia coli* - Petrifilm™	AOAC 991.14
Coliform / *E. coli* - MPN	FDA BAM Ch. 4
E. coli - USP	USP NF <62><2022>
E. coli O157:H7 - Confirmation	FDA BAM Ch. 4; USDA FSIS MLG-5
E. coli O157:H7 - GDS-PCR	AOAC 2005.04
E. coli O157:H7 - RapidChek®	AOAC RI 070801
E. coli O157:H7 - VIDAS UP	AOAC RI 060903
Enterobacteriacae - Petrifilm™	AOAC 2003.01
Lactic Acid Bacteria - Dairy	CMMEF Ch. 47

Peter Mayer

5202 Presidents Court, Suite 220 | Frederick, MD 21703-8398 | Phone: 301 644 3248 | Fax: 240 454 9449 | www.A2LA.org

Attachment 7.2

TEST	TEST METHOD(S)
Lactic Acid Bacteria - MRS/APT	CMMEF Ch. 19
Listeria spp. - Cultural Confirmation	FDA BAM Ch. 10
Listeria spp. - VIDAS	AOAC: 999.06, 2004.06, RI 981202
Listeria monocytogenes - GDS-PCR	AOAC RI 070702
Listeria monocytogenes - VIDAS	AOAC 2004.02
Salmonella - Cultural Confirmation	FDA BAM Ch. 5
Salmonella - VIDAS	AOAC 2004.03
Salmonella - GDS-PCR	AOAC 2009.03
Salmonella - USP	USP NF<62><2022>
Shigella	FDA BAM Ch. 6
Standard Plate Count (SPC)	FDA BAM Ch. 3
Standard Plate Count - USP	USP NF<61><2021>
Staphylococcus aureus - Coagulase Positive	AOAC 975.55; FDA BAM Ch. 12
S. aureus - Petrifilm™	AOAC: 2003.07, 2003.08
S. aureus - USP	USP NF<62><2022>
Top 7 STEC	Assurance GDS
Vibrio spp.	FDA BAM Ch. 9
Yeast & Mold	FDA BAM Ch. 18
Yeast & Mold - USP	USP NF<61><2021>
Yeast & Mold - ISO-GRID	AOAC 995.21
Entomology, Examination, and Decomposition Analysis	
Drained Weight, Net Weight	AOAC: 967.13, 963.18
Decomposition in Seafood	FDA CPG Section 540.370 and 540.525
Examination of Filth Plates	AOAC 970.66
Examination of Raw Cocoa Beans for Contamination and Defects	MPM V-18
Examination of Whole Dried Fruit for Defects	MPM V-53

Peter Rhyne

Attachment 4-2

TEST	TEST METHOD(S)
Insect Infestation in Psyllium Husk	USP Monograph for Psyllium Husk
Mold and Extraneous Matter in Black and White Pepper	ASTA 14.0
Macroscopic Contamination in Basmati Rice	FDA Guideline Attachment #4
Filth in:	
Black or White Whole Peppercorns	MPM V-39
Cocoa Beans	MPM V-18
Coffee Beans	MPM V-1
Dried Fish	FDA LIB 2957
Preserved Fruit	LIB 3156
Tea	AOAC 970.67
Whole Tamarind Pulp	AOAC 945.87
Light Filth in:	
Apple Rings and Other Dried Fruit Pieces	AOAC 945.77
Berries in Black and White Pepper	ASTA 14.2
Breaded Products	FDA LIB 1613
Canned Crab Meat	AOAC 976.27
Candy	AOAC 971.34
Capsicums, Ground	AOAC 978.22
Cocoa Powder	AOAC 965.38
Dehydrated Mushroom Powder	FDA LIB 2657
Dried Bean Curd	AOAC 991.40
Dried Peppers	MPM V-32
Fig and Fruit Paste	AOAC 964.23(A) (Modified); Internal SOP ML-ENT-34
Frozen Shrimp and Seafoods	FDA LIB 3172
Ground Black Pepper	AOAC 972.40(A)
Pepper Sauce	AOAC 972.59
Rice Flour, Rice Sticks/Noodles	FDA LIB 3379
Spices	AOAC 975.48(B)
Tofu	AOAC 992.13
White Breads	AOAC 970.70 a
Whole Dehydrated Mushrooms	AOAC: 967.24(B), 967.24(A,B)

KEY:
AOAC: Association of Analytical Communities
ASTA: American Spice Trade Association
BAM: FDA Bacteriological Analytical Manual
CMMEF: Compendium of Methods for the Microbiological Examination of Foods
CPG: FDA Compliance Policy Guidelines
FDA: Food and Drug Administration
FSIS: USDA Food Safety and Inspection Service
LIB: FDA Laboratory Information Bulletins
MPM: FDA Macroanalytical Procedures Manual
USDA: United States Department of Agriculture
USP: United States Pharmacopeia

Peter Nhyen

Accredited Laboratory

A2LA has accredited

MICHELSON LABORATORIES, INC.

Commerce, CA

for technical competence in the field of

Biological Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of any additional program requirements in the field of Biological Testing. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION
CORPORATE SEAL 1978
DISTRICT OF COLUMBIA
A2LA

Presented this 30th day of June 2015.

President & CEO
For the Accreditation Council
Certificate Number 2074.02
Valid to May 31, 2017

For the tests to which this accreditation applies, please refer to the laboratory's Biological Scope of Accreditation.

Attachment 2-2

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 328 / ANAB NCR# MS-RA-15-8

Regulatory Reference or Requirements: ISO 17025, Section 4.14.1 B

Responsible Personnel: Nilda Cox

Department/Method: QA

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

The internal audit program did not address all elements of the management system for 2014.

For the 2014 internal audit, the management elements were reviewed by procedure review only, not through an audit of the practices as related to the those procedures.

Root Cause of the Problem:

In 2014, the laboratory performed an internal audit of all elements of the management system based on the ANAB ISO 17025 checklist. This audit was done the same way as the lab's TNI checklist in the past. Thus in 2014, the lab interpreted the ISO 17025 audit of the management systems as per NELAP standards compliance and not as per ISO 17025 standards compliance.

Corrective Action:

From the week of July 20, 2015 to August 5, 2015, QA performed the internal audit of EPA 200.7 practices for folder number 531316 to address compliance with all elements of the management system, ISO 17025 standard section 4. QA also reviewed compliance with ISO clauses 4.1 to 4.15 including contract review, purchasing, and subcontracting. See Attachment 8.1 for the outcome of the internal audit of the management system elements using the ANAB ISO 17025 checklist.

Completed by and Date: STL 08/05/15

Prevention:
The future internal audit predetermined internal audit plans will include witnessing the practice to ensure compliance with all the elements of the management system as part of our internal audit. We will include the proof of the witnessing of lab practices in our ANAB ISO 17025 checklist report. QM section 16.1.1.2 was updated to include witnessing of all elements of the management system during the internal audits using the ANAB ISO 17025 checklist. The QM will be published by 8/21/15. See Attachment 8.2 for the draft QM section 16.1.1.2 excerpt.
STL 8/5/15

After the revised QM is published, all QA staff will be trained with the new QM 16.1.1.2 internal auditing procedure.

Completed by and Date: STL 08/05/15

Impact on Data Quality:

N/A
Completed by and Date: STL 08/05/15

Data Disposition:

N/A

Completed by and Date: STL 08/05/15

Client Notification:

N/A

PM Review Signature and Date: N/A

CAR Completion Due Date: 8/5/15

Responsible for Corrective Action (Print Name and Signature):

Nilda Cox Nilda Cox

QA Review Signature and Date: 8/5/15

Quality Manager Signature and Date: Nilda Cox 08/05/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation.

Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

ISO/IEC 17025, ANSI/NCSL Z540-1, And ANAB-specific Requirements Checklist		
CL 2001	Authority: Vice President	Effective: 2015/01/01

An asterisk (*) indicates section where objective evidence is required.

Organization Name: Eurofins Eaton Analytical, Inc.

Assessment Dates: 07/07/15, 7/20/15, 8/4/15, 8/5/15
QM reference Revision 38 effective date is 7/7/15

Lead Assessor: Shu Ting Liu
Updated: Andora Nguyen 7/20/15, Shu Ting Liu 8/4/15 , Robert Dean 8/5/15

4. Organization/Management

4.1.1

Requirements	Document Review	Assessment Compliant
Is the laboratory/parent organization an entity that can be held legally responsible?	QM REV38, 3.1	Y

4.1.2

Requirements	Document Review	Assessment Compliant
Is the laboratory carrying out testing/calibration activities to meet the requirements of the International Standard and satisfying the needs of customers, regulatory authorities, or organizations providing recognition?	QM REV38, 3.2 Quality Policy	Y

4.1.3

Requirements	Document Review	Assessment Compliant
Does the laboratory's management system cover work carried out in the laboratory's permanent facilities, at sites away from its permanent facilities, or in associated temporary/mobile facilities? **Please indicate which apply.**	QM REV38, 3.11.1 Permanent Monrovia facility, in-house sampling	Y

4.1.4

Requirements	Document Review	Assessment Compliant
If the laboratory is part of an organization performing activities other than testing or calibration, are the responsibilities of key personnel in the organization that have an involvement or influence on testing or calibration activities defined in order to identify potential conflicts of interest?	QM REV38, 4 & 4.1	* Y

1. New employees are given the Confidentiality/ Invention and Conflict of Interest Agreement to sign as part of their training. This paper is kept in the employee file in Human Resources.

2. Every year, the laboratory's Influence, Confidentiality, and independence SOP are reviewed and the employees would have to review the SOP and document that they have understood the content of the SOP and agreed to follow the procedure.

3. Audited new hire Farhan Jangda's files. His first day at work was on 7/20/15. He signed the Eurofins Confidentiality/Invention and Conflict of Interest Agreement on 7/7/15. He signed the lab's Influence, Confidentiality, and independence SOP training agreement on 7/20/15.

Note: When the lab is part of a larger organization, organizational arrangements should be such that departments having conflicting interests (such as production, commercial marketing, or financing) do not adversely influence the lab's compliance with the requirements of the International Standard.

Note: If the lab desires to be recognized as a third-party lab, it should be able to demonstrate that it is impartial and that it and its personnel are free from any undue commercial, financial, and other pressures that might influence their technical judgment. The third-party testing or calibration lab should not engage in any activities that may endanger trust in its independence of judgment and integrity in relation to its testing or calibration activities.

4.1.5a

Requirements	Document Review	Assessment Compliant
Does the laboratory have managerial and technical personnel who, irrespective of other responsibilities, have the authority and resources needed to carry out their duties, including the implementation, maintenance, and improvement of the management system, and to identify the occurrence of departures from the management system or from the procedures for performing tests and/or calibrations, and to initiate actions to prevent or minimize such departures (see also 5.2)?	QM REV38, 4	Y

4.1.5b

Requirements	Document Review	Assessment Compliant
Does the laboratory have arrangements to ensure management and personnel are free from any undue internal/external commercial, financial and other pressures and influences that may adversely affect the quality of their work?	QM REV38, 3.2 & 3.4	Y

4.1.5c

Requirements	Document Review	Assessment Compliant
Does the laboratory have policies and procedures to ensure protection of customers' confidential information and proprietary rights, including procedures for protecting electronic storage and transmission of results?	QM REV38, 3.5.1, 13.2.1.3, & 14.5	* Y
Interviewed Analytical Services Manager, Debbie Frank, on 7/29/15 during the Smith & Nephew client audit. Debbie mentioned Client Access Portal (CAP) where the database that the client can see is only limited to what he/she is assigned to do. The database is protected with user name and password, unique to each individual, even within the same organization.		

4.1.5d

Requirements	Document Review	Assessment Compliant
Does the laboratory have policies and procedures to avoid involvement in any activities that would diminish confidence in its competence, impartiality, judgment, or operational integrity?	QM REV38, 3.4 & 15.2.4	* Y
1. During the hiring, the new employees are given the Confidentiality/ Invention and Conflict of Interest Agreement to sign. This paper is kept in the employee file in Human Resources. 2. Every year, the laboratory's Influence, Confidentiality, and independence SOP are reviewed and the employees would have to review the SOP and document that they have understood the content of the SOP and agreed to follow the procedure. 3. Audited new hire Farhan Jangda's files. His first day at work was on 7/20/15. He signed the Eurofins Confidentiality/Invention and Conflict of Interest Agreement on 7/7/15. He signed the lab's Influence, Confidentiality, and independence SOP training agreement on 7/20/15.		

4.1.5e

Requirements	Document Review	Assessment Compliant
Does the laboratory define the organization and management structure of the laboratory, its place in any parent organization, and relationships among quality management, technical operations, and support services?	QM REV38, 4.1 & Fig 4-8	* Y
Reviewed the organization chart dated 7/6/15. The laboratory has summary of the organization chart to describe the structure of the laboratory within the corporate hierarchy and the hierarchy within the laboratory.		

4.1.5f

Requirements	Document Review	Assessment Compliant
Does the laboratory specify the responsibility, authority, and interrelationships of all personnel who manage, perform, or verify work affecting the quality of tests/calibrations?	QM REV38, 4.3	* Y
Reviewed the organization chart dated 7/6/15. The organizational chart includes the interrelationships of all personnel who manage, perform or verify the work by the laboratory.		

4.1.5g

Requirements	Document Review	Assessment Compliant
Does the laboratory provide adequate supervision of testing and calibration staff, including trainees, by persons familiar with methods and procedures, the purpose of each test and/or calibration, and with the assessment of the test or calibration results?	QM REV38, 4.0 & 4.3	Y

4.1.5h

Requirements	Document Review	Assessment Compliant
Does the laboratory have technical management which has overall responsibility for technical operations and the provision of the resources needed to ensure the required quality of laboratory operations?	QM REV38, 4.1	Y

4.1.5i

Requirements	Document Review	Assessment Compliant
Does the laboratory have a member of staff who is appointed as quality manager (however named) who, irrespective of other duties and responsibilities, has the defined responsibility and authority for ensuring that the management system related to quality is implemented and followed at all times; does the quality manager have direct access to the highest level of management at which decisions are made on laboratory policy or resources? **Please provide name.**	QM REV38, 4.1.6 & 4.2 Nilda B. Cox	* Y
Reviewed the organization chart dated 7/6/15. Quality manager (Nilda Cox) reports to Dennis Leeke (President and Lab Director). Defined responsibilities are in QM Rev 38 sections 4.1.6 and 4.2.		

4.1.5j

Requirements	Document Review	Assessment Compliant
Does the laboratory have deputies appointed for key managerial personnel (see note)?	QM REV38, 4.1 & Figure 4-6	* Y
Reviewed the organization chart dated 7/6/15 and QM Rev38 section 4.1. The organization chart shows the deputy for each of the key personnel, such as lab director, quality manager and technical manager.		

4.1.5k

Requirements	Document Review	Assessment Compliant

Does the laboratory ensure that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the objectives of the management system?	QM REV38, 3.2 & 4.3	Y

Note: Individuals may have more than one function and it may be impractical to appoint deputies for every function.

4.1.5.Z1 – **Z540-1 Requirement (Calibration - if requested)**

Requirements	Document Review	Assessment Compliant
Does the laboratory have a member of staff who is appointed as technical manager who has overall responsibility for the technical operations? **Please provide name.**	QM V38, 4.1,	*Y
Reviewed the organization chart dated 7/6/15 and QM Rev38 section 4.1. Currently there are 5 technical managers: 1. Ali Haghani, 2. Walter Hsieh, 3. Polly Barrowman, 4. Charles Grady 5. CJ Belt		

4.1.6

Requirements	Document Review	Assessment Compliant
Does top management ensure that appropriate communication processes are established in the laboratory and that communication occurs regarding the effectiveness of the management system?	QM REV38, 3.2, 4.1 & 4.3	Y

4.2 Management System

4.2.1a

Requirements	Document Review	Assessment Compliant
Has the laboratory established, implemented, and maintained a management system appropriate to the scope of its activities?	QM REV38, 3.0 & 4.0	Y

4.2.1b

Requirements	Document Review	Assessment Compliant
Has the lab documented its policies, systems, programs, procedures, and instructions to the extent necessary to assure the quality of the test/calibration results?	QM REV38, 13.0	Y

4.2.1c

Requirements	Document Review	Assessment Compliant
Is the system's documentation communicated to, understood by, available to, and implemented by appropriate personnel?	QM REV38, 13.4, Fig 4-1 & 4-2	Y

4.2.2a

Requirements	Document Review	Assessment Compliant
Are the laboratory's management system policies defined in a quality manual (however named), including a quality policy statement?	QM REV38, 3.2	*Y
Reviewed QM Rev 38 for the policy statement. The policy statement is available in section 3.2 of the QM signed by		

Dennis Leeke on 7/7/15.

4.2.2b

Requirements	Document Review	Assessment Compliant
Are overall objectives established in the management system and reviewed during management review?	QM REV38, 16.4.2 & AMR Report	Y

4.2.2c

Requirements	Document Review	Assessment Compliant
Is the quality policy statement issued under the authority of top management?	QM REV38, 3.2	*Y
Reviewed QM Rev 38 Section 3.2 for the quality policy statement. Dennis Leeke (President and Lab Director) signed this quality policy statement on 7/7/15.		

4.2.2d

Requirements	Document Review	Assessment Compliant
Does the quality policy statement include management's commitment to good professional practice and to the quality of its testing and calibration in servicing its customers?	QM REV38, 3.2	Y

4.2.2e

Requirements	Document Review	Assessment Compliant
Does the quality policy statement include management's statement of the laboratory's standard of service?	QM REV38, 3.2	Y

4.2.2f

Requirements	Document Review	Assessment Compliant
Does the quality policy statement include the purpose of the management system related to quality?	QM REV38, 3.2	Y

4.2.2g

Requirements	Document Review	Assessment Compliant
Does the quality policy statement include a requirement that all personnel concerned with testing and calibration activities within the laboratory familiarize themselves with the quality documentation and implement the policies and procedures in their work?	QM REV38, 3.2	Y

4.2.2h

Requirements	Document Review	Assessment Compliant
Does the quality policy statement include laboratory management's commitment to comply with the International Standard and to continually improve the effectiveness of the management system?	QM REV38, 3.2	Y

Note: The quality policy statement should be concise and may include the requirement that tests/calibrations will always be carried out in accordance with stated methods and customers' requirements. When the test/calibration lab is part of a larger organization, some quality policy elements may be in other documents.

4.2.3

Requirements	Document Review	Assessment Compliant
Does evidence exist showing top management is committed to the development and implementation of the management system and to continually improving its effectiveness?	QM REV38, 16.5	Y

4.2.4

Requirements	Document Review	Assessment Compliant
Does top management communicate to the organization the importance of meeting customer requirements as well as statutory and regulatory requirements?	QM REV38, 3.2, 3.5, & 4.3	Y

4.2.5a

Requirements	Document Review	Assessment Compliant
Does the quality manual include or make reference to supporting procedures including technical procedures?	QM REV38, Tables 9-1, 9-2, & 9-3	*Y
Reviewed QM Rev 38. Tables 9-1, 9-2, & 9-3 of the quality manual list our current SOPs as of 7/7/15. QM Rev 38 refers to the D4 database for current SOPs.		

4.2.5b

Requirements	Document Review	Assessment Compliant
Does the quality manual outline the structure of documentation used in the management system?	QM REV38, 13	*Y
Reviewed QM Rev 38 and D4 database. The D4 database dictates the structure of documents in use based on the Eurofins Environmental section. The triangle level is available in all documents stored in the database. The top level is the Quality Manual and policies, second level are SOPs, and the bottom level are the forms. The triangle levels will be added to the next revision of the QM.		

4.2.6

Requirements	Document Review	Assessment Compliant
Are the roles/responsibilities of technical management and the quality manager, including their responsibility for ensuring compliance with the International Standard, defined in the quality manual?	QM REV38, 4.1 & 4.2	*Y
Reviewed QM Rev 38 sections 4.1 and 4.2. The quality manual sections 4.1 and 4.2 define the roles and responsibilities of the technical manager and quality manager including their responsibility for ensuring compliance with the International standard ISO 17025 version 2005.		

4.2.7

Requirements	Document Review	Assessment Compliant
Does top management ensure that the integrity of the management system is maintained when changes to the management system are planned and implemented?	QM REV38, 3.5.1, 4.2	Y

4.2 A1 - **ANAB Requirement - On-Site and Satellite Site Activities**

Requirements	Document Review	Assessment Compliant
Has the laboratory identified the specific calibration(s) and/or test(s) on the (draft) scope of accreditation conducted in the field (on-site) and/or at satellite sites? **Assessor: review the scope with the lab to verify these are properly identified.**	See Scope QM REV38, 3.1 & 3.9	Y

4.2 A2 - **ANAB Requirement - Satellite Site Activities**

Requirements	Document Review	Assessment Compliant
Is the quality manual available to personnel and does it include the chain of supervision of the satellite site(s)?	Not Applicable	*N/A
NOT APPLICABLE since we are only ANAB certified at one of our facilities (Monrovia).		

4.3 Document Control

4.3.1 General

Requirements	Document Review	Assessment Compliant
Does the laboratory establish and maintain procedures to control all documents that form part of its management system (internally generated or from external sources), such as regulations, standards, other normative documents, test/calibration methods, as well as drawings, software, specifications, instructions, and manuals?	QM REV38, 13	*Y
Reviewed QM Rev 38 section 13. The document control SOP (NonMethod-SOP3002), Version 3 effective date 6/20/15, was also reviewed in addition to the policy of controlling the number of copies of the SOPs and the Quality Manual. Reviewed SOP for Goleta folder #531316 method 200.7: Metals-SOP2363, Version 22, Effective Date 2/4/15 Reviewed Method EPA 200.7 reference. It is controlled under EEA control number “QA REF 0002.”		

Note: In this context “document” could be policy statements, procedures, specifications, calibration tables, charts, text books, posters, notices, memoranda, software, drawings, plans, etc. These may be on various media, whether hard copy or electronic, and they may be digital, analog, photographic, or written.

Note: The control of data related to testing/calibration is covered in 5.4.7. The control of records is covered in 4.13.

4.3.2 Document Approval/Issue

4.3.2.1a

Requirements	Document Review	Assessment Compliant
Are all documents issued to personnel in the lab as part of the management system reviewed and approved for use by authorized personnel prior to issue?	QM REV38, 13.4.1 & 13.5.1	Y

4.3.2.1b

Requirements	Document Review	Assessment Compliant
Is a master list or an equivalent document control procedure identifying current revision status and distribution of documents in the management system established and readily available to preclude use of invalid and/or obsolete documents?	QM REV38, 13.5	*Y
Reviewed QM Rev 38 section 13.5 and document control SOP (NonMethod-SOP3002), Version 3 effective date 6/20/15. Reviewed the master list on 8/4/15 maintained in the D4 database identifying current revision status and distribution of documents. The D4 database removes invalid and/or obsolete documents from usage if the document version is not the current version in use, thus obsolete documents are removed.		

4.3.2.2a

Requirements	Document Review	Assessment Compliant
Does the procedure adopted ensure that authorized editions of appropriate documents are available at all locations where operations essential to effective functioning of the laboratory are performed?	QM REV38, 13.4.1	Y

4.3.2.2b

Requirements	Document Review	Assessment Compliant
Does the procedure adopted ensure that documents are periodically reviewed and, where necessary, revised to ensure continuing suitability and compliance with applicable requirements?	QM REV38, 4.2.3.1	Y

4.3.2.2c

Requirements	Document Review	Assessment Compliant
Does the procedure adopted ensure that invalid or obsolete documents are promptly removed from all points of issue or use, or otherwise assured against unintended use?	QM REV38, 13.4.1 & 13.5.2	Y

4.3.2.2d

Requirements	Document Review	Assessment Compliant
Does the procedure adopted ensure that obsolete documents retained for either legal or knowledge preservation purposes are suitably marked?	QM REV38, 13.5.2 & 13.6	Y

4.3.2.3a

Requirements	Document Review	Assessment Compliant
Are management system documents generated by the lab uniquely identified?	QM REV38, 13.4.1	Y

4.3.2.3b

Requirements	Document Review	Assessment Compliant
Does such identification include the date of issue and/or revision identification, page numbering, total number of pages or a mark to signify the end of the document, and issuing authority(ies)?	QM REV38, 13.4.1	Y

4.3.3 Document Changes

4.3.3.1a

Requirements	Document Review	Assessment Compliant
Are changes to documents reviewed and approved by the same function that performed the original review unless specifically designated otherwise?	QM REV38, 13.4.6	Y

4.3.3.1b

Requirements	Document Review	Assessment Compliant
Do designated personnel have access to pertinent background information upon which to base their review and approval?	QM REV38, 13.4.6	Y

4.3.3.2

Requirements	Document Review	Assessment Compliant
Is (where practicable) the altered or new text identified in the document or appropriate attachments?	QM REV38, 13.5.2	Y

4.3.3.3a

Requirements	Document Review	Assessment Compliant
If the lab's documentation control system allows for amendment of documents by hand pending re-issue of documents, are procedures and	QM REV38, 4.2.3.1	*Y

authorities for such amendments defined?		
Reviewed QM Rev 38 section 4.2.3.1. With the ease of the D4 database to update an SOP – we are currently not allowing amendment of documents by hand pending re-issue of the documents. The QM needs to be updated to remove the option since we are not allowing manual amendments by hand.		

4.3.3.3b

Requirements	Document Review	Assessment Compliant
Are amendments clearly marked, initialed, and dated?	QM REV38, 4.2.3.1	Y

4.3.3.3c

Requirements	Document Review	Assessment Compliant
Is a revised document formally re-issued as soon as practicable?	QM REV38, 4.2.3.1	Y

4.3.3.4

Requirements	Document Review	Assessment Compliant
Are procedures established to describe how changes in documents maintained in computerized systems are made and controlled?	QM REV38, 13.5.2 & Revision section in SOP	* Y
Reviewed QM Rev 38 section 13.5.2. The changes of documents, such as in our quality manual and SOP are documented in a summary of changes for the next revision. The 200.7 SOP (Metals-SOP2363), effective date of 2/5/15, was reviewed for the revisions section. Section 21 in the SOP documents all the revisions. A separate document for the Quality Manual revisions is maintained in D4 as an attachment under the Quality Manual (QM-Monrovia-QM2598).		

4.4 Review of Requests/Tenders/Contracts

4.4.1a

Requirements	Document Review	Assessment Compliant
Does the laboratory establish and maintain procedures for review of requests, tenders, and contracts?	QM REV38, 3.6	*Y
Reviewed Goleta Folder# 531316; ASM = Monica Van Natta The contract started on 7/1/2013. The contract was reviewed by Ed Wilson and Andy Eaton. The COC is used for the continuing terms and agreement for routine samples received after the contract was signed.		

4.4.1b

Requirements	Document Review	Assessment Compliant
Do the policies and procedures for these reviews leading to a contract for testing and/or calibration ensure that requirements, including methods to be used, are adequately defined, documented, and understood (see 5.4.2)?	QM REV38, 3.6	Y

4.4.1c

Requirements	Document Review	Assessment Compliant
Do the policies and procedures for these reviews leading to a contract for testing and/or calibration ensure that the laboratory has the capability and resources to meet the requirements?	QM REV38, 3.6	Y

4.4.1d

Requirements	Document Review	Assessment Compliant
Do the policies and procedures for these reviews leading to a contract for	QM REV38, 3.6	Y

testing and/or calibration ensure that the appropriate test and/or calibration method is selected and capable of meeting customers' requirements (see 5.4.2)?		

4.4.1e

Requirements	Document Review	Assessment Compliant
Are any differences between the request or tender and the contract resolved before any work commences? Is each contract acceptable to the laboratory and the customer?	QM REV38, 3.6 & 3.6.1.4	Y

Note: Request, tender, and contract review should be conducted in a practical and efficient manner, and the effect of financial, legal, and time schedule aspects should be taken into account. For internal customers, reviews of requests, tenders, and contracts can be performed in a simplified way.

Note: Review of capability should establish that the lab possesses the necessary physical, personnel, and information resources, and that the lab's personnel have the skills and expertise necessary for the performance of tests or calibrations in question. The review may also encompass results of earlier participation in inter-laboratory comparisons or proficiency testing and/or running of trial test or calibration programs using samples or items of known value in order to determine uncertainties of measurements, limits of detection, confidence limits, etc.

Note: A contract may be any written or oral agreement to provide a customer with testing/calibration services.

4.4.2a

Requirements	Document Review	Assessment Compliant
Are records of review, including any significant changes, maintained?	QM REV38, 3.6.2.1 EEA's Policy-QP3977	*Y
Reviewed Goleta Folder# 531316; ASM = Monica Van Natta The contract is no longer active. The COC and terms of agreement are used for routine samples received from the client. Additional client contract was reviewed. The client is HAWAII with e-mail from client to ASM (Debbie Frank) on 5/28/15 to add an additional test (EPA 508A). Change order from client was signed by Dennis Leeke (EEA President/Lab Director) on 5/28/15.		

4.4.2b

Requirements	Document Review	Assessment Compliant
Are records maintained of pertinent discussions with a customer relating to the customer's requirements or results of the work during the period of execution of the contract?	QM REV38, 3.6.2.1 EEA's Policy-QP3977	*Y
Reviewed KMEA Folder #541951; ASM = Debbie Frank Records of pertinent discussions with the customer (KMEA) relating to the customer's requirements are maintained. Reviewed EEA's Policy-QP3977 for storing communication between clients and Analytical Services Managers.		

Note: For review of routine and other simple tasks, the date and identification (e.g., the initials) of person in the lab responsible for carrying out contracted work are considered adequate. For repetitive routine tasks, the review need be made only at the initial enquiry stage or on granting of the contract for on-going routine work performed under a general agreement with the customer, provided the customer's requirements remain unchanged. For new, complex or advanced testing/calibration tasks, a more comprehensive record should be maintained.

4.4.3

Requirements	Document Review	Assessment Compliant
Does the review also cover any work that is subcontracted by the lab?	QM REV38, 3.10.2	Y

4.4.4

Requirements	Document Review	Assessment Compliant
Is the customer informed of any deviation from the contract?	QM REV38, 3.6.1.4	Y

4.4.5

Requirements	Document Review	Assessment Compliant
If a contract needs to be amended after work has commenced, is the same contract review process repeated and are any amendments communicated to all affected personnel?	QM REV38, 3.6.1.4	Y

4.5 Subcontracting of Tests/Calibrations

4.5.1

Requirements	Document Review	Assessment Compliant
When a laboratory subcontracts work whether because of unforeseen reasons (e.g., workload, need for further expertise, or temporary incapacity) or on a continuing basis (e.g., through permanent subcontracting, agency, or franchising arrangements), is work placed with a competent subcontractor? A competent subcontractor is one that, for example, complies with the International Standard for the work in question.	QM REV38, 3.10.1	*Y
Reviewed LADWP Folder #540698. The 2,3,7,8-TCDD 1613 samples were subbed to Eurofins Lancaster Laboratories Environmental. Lancaster Lab's A2LA ISO 17025 certificate number is 0001.01 with expiration date of 11/30/16. EEA does not subcontract on a continuing basis, but only for temporary incapacity, where EEA refers to as during emergency situations.		

4.5.2

Requirements	Document Review	Assessment Compliant
Does the laboratory advise the customer of the arrangement in writing and, when appropriate, gain the approval of the customer (preferably in writing)?	QM REV38, 3.10.2	*Y
Reviewed WRD Folder# 536303; Client Services Manager (CSM) = Linda Geddes Reviewed Linda's e-mail to WRD on 6/9/15 for approval of subcontracting dioxin samples to Lancaster Labs. The client accepted and the record is in the 6/10/15 e-mail.		

4.5.3

Requirements	Document Review	Assessment Compliant
Is the laboratory responsible to the customer for the subcontractor's work, except in the case where the customer or a regulatory authority specifies which subcontractor is to be used?	QM REV38, 3.10.6	Y

4.5.4

Requirements	Document Review	Assessment Compliant
Does the laboratory maintain a register of all subcontractors that it uses for tests and/or calibrations and a record of evidence of compliance with the International Standard for the work in question?	QM REV38, 3.10.8	*Y

Reviewed the 7/8/15 potential subcontractors list that we are currently working with and those that we worked with in the past. We are currently working to streamline this register.

4.6 Purchasing Services/Supplies

4.6.1a

Requirements	Document Review	Assessment Compliant
Does the laboratory have a policy and procedure for the selection and purchasing of services and supplies it uses that affect the quality of tests and/or calibrations?	QM REV38, 10.0 NonMethod-SOP2520	*Y
Reviewed Chapter 10 of the Quality Manual and Purchasing SOP (NonMethod-SOP2520). In the week of July 27, 2015 – the purchase of standards were reviewed for method 200.7 for sample in folder 531316. Lisa Ramirez and Nina Sicam were interviewed for this process.		

4.6.1b

Requirements	Document Review	Assessment Compliant
Do procedures exist for purchase, reception, and storage of reagents and laboratory consumable materials relevant for tests and calibrations?	QM REV38, 10.0 NonMethod-SOP2520	*Y
Reviewed section 10 of the Quality Manual and Purchasing SOP (NonMethod-SOP2520). In the week of July 27, 2015 – the purchase of standards, reception, and storage of reagents were reviewed for method 200.7 for sample in folder 531316. Lisa Ramirez and Nina Sicam were interviewed for this process.		

4.6.2a

Requirements	Document Review	Assessment Compliant
Does the laboratory ensure purchased supplies and reagents and consumable materials that affect the quality of tests and/or calibrations are not used until they have been inspected or otherwise verified as complying with standard specifications or requirements defined in the methods for test and/or calibrations concerned?	QM REV38, 10.2	Y

4.6.2b

Requirements	Document Review	Assessment Compliant
Do services and supplies used comply with specified requirements?	QM REV38, 10.2	Y

4.6.2c

Requirements	Document Review	Assessment Compliant
Are records of actions taken to check compliance maintained?	QM REV38, 10.2.4	*Y
Reviewed section 10.2.4 of the Quality Manual. In the week of July 27, 2015 –the purchase of standards and records of actions to check compliance were reviewed for method 200.7 for sample in folder 531316. Lisa Ramirez and Nina Sicam were interviewed for this process.		

4.6.3a

Requirements	Document Review	Assessment Compliant
Do purchasing documents for items affecting the quality of laboratory output contain data describing services and supplies ordered?	NonMethod-SOP2520, Section5	*Y

Reviewed section 5 of the Purchasing SOP (NonMethod-SOP2520). In the week of July 27, 2015 – the purchase of standards were reviewed for method 200.7 for sample in folder 531316. Lisa Ramirez and Nina Sicam were interviewed for this process. Reviewed vendor Inorganic Ventures, A2LA ISO Guide 34 certificate# 0883.02 with expiration date of 7/31/16.

4.6.3b

Requirements	Document Review	Assessment Compliant
Are these purchasing documents reviewed and approved for technical content prior to release?	NonMethod-SOP2520, 5.E	Y

Note: The description may include type, class, grade, precise identification, specifications, drawings, inspection instructions, and other technical data including approval of test results, the quality required, and the management system standard under which they were made.

4.6.4

Requirements	Document Review	Assessment Compliant
Does the laboratory evaluate suppliers of critical consumables, supplies, and services which affect the quality of testing and calibration, and maintain records of these evaluations and a list of those approved?	NonMethod-SOP2520, 4	*Y
Reviewed section 4 of the Purchasing SOP (NonMethod-SOP2520). In the week of July 27, 2015 –the purchase of standards were reviewed for method 200.7 for sample in folder 531316. Lisa Ramirez and Nina Sicam were interviewed for this process. Reviewed vendor Inorganic Ventures, A2LA ISO Guide 34 certificate# 0883.02 with expiration date of 7/31/16.		

4.7 Service to the Customer

4.7.1

Requirements	Document Review	Assessment Compliant
Is the laboratory willing to cooperate with customers or their representatives in clarifying the customer's request to monitor the laboratory's performance in relation to work performed, provided the laboratory ensures confidentiality to other customers?	QM REV38, 3.5	Y

Note: Such cooperation may include:

- providing customers/customers' representatives reasonable access to relevant areas of the laboratory for witnessing of tests and/or calibrations performed for the customer
- preparation, packaging, and dispatch of test and/or calibration items needed by the customer for verification purposes

Note: Customers value the maintenance of good communication, advice, and guidance in technical matters, and opinions and interpretations based on results. Communication with the customer, especially in large assignments, should be maintained throughout the work. The laboratory should inform the customer of any delays or major deviations in performance of tests/calibrations.

4.7.2a

Requirements	Document Review	Assessment Compliant
Does evidence exist that the laboratory encourages feedback, both positive and negative, from customers or other parties?	QM REV38, 16.4.2.3	Y

4.7.2b

Requirements	Document Review	Assessment Compliant

Is feedback used to improve the management system, testing/calibration activities, and customer service?	QM REV38, 16.4.2.3	Y

Note: Examples of the types of feedback include customer satisfaction surveys and review of test or calibration reports with customers.

4.8a Complaints (also Required for Surveillance Assessments)

Requirements	Document Review	Assessment Compliant
Does the laboratory have a policy and procedure for resolution of complaints received from customers or other parties?	QM REV38, 3.7 Policy-QP3977	*Y
Reviewed QM section 3.7 for resolutions of complaints received from customers/other parties. Policy-QP3977 was also reviewed for retention of all communication with clients. Reviewed Calwater's e-mail to Yolanda Martin (ASM) requesting a CAR on July 22, 2015. It was regarding a dilution factor for UCMR3 method 200.8. If the complaints requires investigations and corrective actions, these records are kept in QA under the customer complaint log in binders/server. The complaint for Calwater is logged as CAR #332. This is meeting Policy-QP3977.		

4.8b

Requirements	Document Review	Assessment Compliant
Are records maintained of all complaints and of investigations and corrective actions taken by the laboratory? (see also 4.11)	QM REV38, 3.7.4	*Y
The records for all customer complaints are kept in the Analytical Services Managers' email. Reviewed Calwater's e-mail to Yolanda Martin (ASM) requesting a CAR on July 22, 2015. It was regarding a dilution factor for UCMR3 method 200.8. If the complaints requires investigations and corrective actions, these records are kept in QA under the customer complaint log in binders/server. The complaint for Calwater is logged as CAR #332.		

4.9 Control of Nonconforming Testing/Calibration Work

4.9.1a

Requirements	Document Review	Assessment Compliant
Does the laboratory have a policies and procedure that shall be implemented when any aspect of its testing/calibration work, or results of this work, do not conform to its own procedures or the agreed requirements of the customer? Do the policies/procedures ensure that	QM REV38, 15.0 & NonMethod-SOP3001	*Y
Reviewed section 15 of the Quality Manual and Non-conforming Work and Corrective Action SOP (NonMethod-SOP3001) for the laboratory's policies and procedures for non-confirming work. Reviewed CAR #299 which was generated due to missed holding time for TSS which did not conform to the TSS SOP (Wet Chemistry-SOP2464, Version 9, effective date 11/28/14).		

4.9.1b

Requirements	Document Review	Assessment Compliant
Do the policies/procedures ensure that responsibilities and authorities for management of nonconforming work are designated and actions (including halting of work and withholding of test reports/calibration certificates, as necessary) are defined and taken when nonconforming work is discovered?	NonMethod-SOP3001, 7	Y

4.9.1c

Requirements	Document Review	Assessment Compliant
Do the policies/procedures ensure that an evaluation of the significance of nonconforming work is made?	NonMethod-SOP3001, 5.D	Y

4.9.1d

Requirements	Document Review	Assessment Compliant
Do the policies/procedures ensure that corrective actions are taken immediately, together with any decision about the acceptability of nonconforming work?	NonMethod-SOP3001, 5.D	Y

4.9.1e

Requirements	Document Review	Assessment Compliant
Do the policies/procedures ensure that, where necessary, the customer is notified and work is recalled?	QM REV38, 15.2.2.5 NonMethod-SOP3001, 5.D	Y

4.9.1f

Requirements	Document Review	Assessment Compliant
Do the policies/procedures ensure that the responsibility for authorizing resumption of work is defined?	NonMethod-SOP3001, 7	Y

Note: Identification of nonconforming work, problems with the management system or with testing/calibration activities can occur at various places within the management system and technical operations. Examples are customer complaints, quality control, instrument calibration, checking of consumable materials, staff observations or supervision, test report/calibration certificate checking, management reviews, and internal/external audits.

4.9.2

Requirements	Document Review	Assessment Compliant
Where the evaluation indicates that nonconforming work could recur or that there is doubt about the compliance of the laboratory's operations with its own policies and procedures, are corrective action procedures given in 4.11 promptly followed?	QM REV38, 15.2.2.6	*Y
Reviewed QM Rev 38 section 15.2.2.6 for policy and procedures. Nonconforming work are documented in the form of QIR, CAR, and customer complaints. Reviewed trends through StarLIMS flags and generated CAR #311 for GCMS VOC data trend showing repeating LCS high bias.		

4.10 Improvement

Requirements	Document Review	Assessment Compliant
Does the lab continually improve the effectiveness of its management system through the use of: • the quality policy • quality objectives • audit results • analysis of data • corrective/preventive actions • management review	QM REV38, 16.5	Y

4.11 Corrective Action (also required for Surveillance Assessments)

4.11.1 General

Requirements	Document Review	Assessment Compliant
Has the laboratory established a policy and a procedure and designated	QM REV38, 15.0	*Y

appropriate authorities for implementing corrective action when nonconforming work or departures from the policies and procedures in the management system or technical operations have been identified?	NonMethod-SOP3001, 8	
Reviewed corrective action reports in the QA server that shows who are the responsible parties to implement the corrective action, which usually is the department manager. Reviewed CAR#285 for TOC Holding time issue. The CAR was initiated on 3/25/15, closed on 4/2/15, and followed up on 4/22/15. Walter Hsieh (Technical Manager of the inorganics department) was designated to implement the corrective action.		

Note: A problem with the management system or with the technical operations of the laboratory may be identified through a variety of activities, such as control of nonconforming work, internal/external audits, management reviews, feedback from customers, or staff observations.

4.11.2 Cause Analysis

Requirements	Document Review	Assessment Compliant
Does the procedure for corrective action start with an investigation to determine the root cause(s) of the problem?	QM REV38, 15.2.1 NonMethod-SOP3001, 8.G.1	Y

Note: Cause analysis is the key and sometimes the most difficult part in the corrective action procedure. Often the root cause is not obvious and thus a careful analysis of all potential causes of the problem is required. Potential causes could include customer requirements, the samples, sample specifications, methods and procedures, staff skills and training, consumables, or equipment and its calibration.

4.11.3a Selection/Implementation of Corrective Actions

Requirements	Document Review	Assessment Compliant
Where corrective action is needed, does the laboratory identify potential corrective actions? Does it select and implement the action(s) most likely to eliminate the problem and to prevent recurrence?	NonMethod-SOP3001, 8.G.2	Y

4.11.3b

Requirements	Document Review	Assessment Compliant
Are corrective actions to a degree appropriate to the magnitude and risk of the problem?	NonMethod-SOP3001, 8.G.2	Y

4.11.3c

Requirements	Document Review	Assessment Compliant
Does the laboratory document and implement any required changes resulting from corrective action investigations?	NonMethod-SOP3001, 8.G.3	*Y
Reviewed the laboratory Corrective Action Reports – the implementation and documentation of the corrective action investigations are listed. Reviewed CAR #313, where the implementation and retraining of the personnel were documented in the corrective action report.		

4.11.4 Monitoring of Corrective Actions

Requirements	Document Review	Assessment Compliant
Does the laboratory monitor the results to ensure that the corrective actions taken have been effective?	QM REV38, 15.2.3.1	Y

4.11.5 Additional Audits

Requirements	Document Review	Assessment Compliant
Where identification of non-conformances or departures casts doubts on the laboratory's compliance with its own policies and procedures or on its compliance with the International Standard, does the lab ensure the appropriate areas of activity are audited in accordance with 4.14 as soon as possible?	QM REV38, 15.2.5.6	Y

Note: Such additional audits often follow implementation of corrective actions to confirm their effectiveness. An additional audit should be necessary only when a serious issue or risk to the business is identified.

4.12 Preventive Action

4.12.1a

Requirements	Document Review	Assessment Compliant
Are needed improvements and potential sources of non-conformances, either technical or concerning the management system, identified?	QM REV38, 15.2.4	Y

4.12.1b

Requirements	Document Review	Assessment Compliant
If preventive action is required, are action plans developed, implemented, and monitored to reduce the likelihood of occurrence of such non-conformances and to take advantage of opportunities for improvement?	QM REV38, 15.2.4	Y

4.12.2

Requirements	Document Review	Assessment Compliant
Do procedures for preventive actions include initiation of such actions and application of controls to ensure that they are effective?	QM REV38, 15.2.4	*Y
Reviewed QM Rev 38 section 15.2.4. Reviewed trends through StarLIMS flags and generated CAR #311 for GCMS VOC data trend showing repeating LCS high bias. The data was acceptable for compliance since samples were ND with high QC recovery, but a CAR was generated based on the data trend as prevention.		

Note: Preventive action is a proactive process to identify opportunities for improvement rather than a reaction to the identification of problems/complaints.

Note: Apart from review of operational procedures, preventive action might involve analysis of data, including trend/risk analyses and proficiency-testing results.

4.13 Control of Records

4.13.1 General

4.13.1.1a

Requirements	Document Review	Assessment Compliant
Does the laboratory establish and maintain procedures for identification, collection, indexing, access, filing, storage, maintenance, and disposal of quality and technical records?	QM REV38, 13.2 NonMethod-SOP2523	*Y
Reviewed section 13.2 of QM Rev38 and in the Control of Records SOP (NonMethod-SOP2523). -Reviewed client folder 464799 from 2014 through Imagenow (location of scanned records). Pulled scanned data		

package for the run which includes the scanned prep sheet, sequence, checklists for sample 201401160194 through imagenow. -Reviewed client folder 169758 from 2006. Pulled VOC raw data package and found sample 2603160208 as part of the original scanned run through Imagenow.

4.13.1.1b

Requirements	Document Review	Assessment Compliant
Do quality records include reports from internal audits and management reviews as well as records of corrective and preventive actions?	NonMethod-SOP2523, 3.A	*Y
Reviewed QA server for the 2014 internal audit, July 2014 to June 2015 management review, corrective actions and preventative actions. CAR #308 was generated from action items recorded that arose from the July 2014 to June 2015 management review.		

4.13.1.2a

Requirements	Document Review	Assessment Compliant
Are all records legible and stored and retained in such a way that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss?	QM REV38, 13.2.1.2	Y

4.13.1.2b

Requirements	Document Review	Assessment Compliant
Are retention times of records established?	QM REV38, 13.2.1.2	*Y
Reviewed section 13.2.1.2 of QM Rev 38. The retention time for records is 10 years. Reviewed client folder 169758 from 2006. Pulled VOC raw data package and found sample 2603160208 as part of the original scanned run through Imagenow.		

Note: Records may be in any media, such as hard copy or electronic media.

4.13.1.3

Requirements	Document Review	Assessment Compliant
Are all records held secure and in confidence?	NonMethod-SOP2523, 3.A	Y

4.13.1.4

Requirements	Document Review	Assessment Compliant
Does the laboratory have procedures to protect/back-up records stored electronically and to prevent unauthorized access to or amendment of these records?	QM REV38, 13.3.2 NonMethod-SOP2523	*Y
The procedure is described in quality manual section 13.3.2 and the Control of Records SOP (NonMethod-SOP2523, Version 2, Effective Date 11/26/14). -Reviewed client folder 464799 from 2014 through Imagenow (location of scanned records). Pulled scanned data package for the run which includes the scanned prep sheet, sequence, checklists for sample 201401160194 through imagenow. -Reviewed client folder 169758 from 2006. Pulled VOC raw data package and found sample 2603160208 as part of the original scanned run through Imagenow.		

4.13.2 Technical Records

4.13.2.1a

Requirements	Document Review	Assessment Compliant
Does the laboratory retain records of original observations, derived data, and sufficient information to establish an audit trail, calibration records, staff records, and a copy of each test report/calibration certificate issued, for a defined period?	QM REV38, 13.2.2.1	*Y
Reviewed folder# 528207 from Palmdale's 'Drinking' project. When the ASM made changes to the final report, the original report titled "528207_20150416" that was originally produced was not deleted but kept in the server. The new final report includes the new revision date. The revised report file name is "528207_REVISED_20150417."		

4.13.2.1b

Requirements	Document Review	Assessment Compliant
Do records for each test/calibration contain sufficient information to facilitate, if possible, identification of factors affecting the uncertainty and to enable the test/calibration to be repeated under conditions as close as possible to the original?	QM REV38, 13.2.2.1	*Y
Reviewed Goleta Folder# 531316 method 200.7; ASM = Monica Van Natta The laboratory retains technical records of original observations, derived data and sufficient information to establish an audit trail, calibration records, staff records and a copy of each test report issued, for a defined period, 10 years.		

4.13.2.1c

Requirements	Document Review	Assessment Compliant
Do records include the identity of personnel responsible for the performance of the sampling, test/calibration and checking of results?	QM REV38, 13.2.2.1	*Y
Reviewed Goleta Folder# 531316 method 200.7; ASM = Monica Van Natta The laboratory retains technical records of original observations, derived data and sufficient information to establish an audit trail, calibration records, staff records and a copy of each test report issued, for a defined period, 10 years. The sample was sampled by Dale Armstrong on 6/29/15. The calibration and test were done by Nina Sicam on 7/2/15. Data pack was reviewed by Sophia Khan on 7/7/15.		

Note: In certain fields it may be impossible or impractical to retain records of all original observations.

Note: Technical records are accumulations of data (see 5.4.7) and information which result from carrying out tests/calibrations and which indicate whether specified quality or process parameters are achieved. They may include forms, contracts, work sheets, workbooks, check sheets, work notes, control graphs, external and internal test reports and calibration certificates, customers' notes, papers, and feedback.

4.13.2.2

Requirements	Document Review	Assessment Compliant
Are observations, data, and calculations recorded at the time they are made and identifiable to the specific task?	QM REV38, 13.2.2.2	Y

4.13.2.3a

Requirements	Document Review	Assessment Compliant
When mistakes occur in records, is each mistake crossed out (not erased, made illegible, or deleted) and the correct value entered alongside?	QM REV38, 13.2.2.3	Y

4.13.2.3b

Requirements	Document Review	Assessment Compliant
Are all such alterations to records signed or initialed by the person making the correction?	QM REV38, 13.2.2.3	Y

4.13.2.3c

Requirements	Document Review	Assessment Compliant
In the case of records stored electronically, are equivalent measures taken to avoid loss or change of original data?	QM REV38, 13.2.2.3	Y

4.14 Internal Audits (also Required for Surveillance Assessments)

4.14.1a

Requirements	Document Review	Assessment Compliant
Does the lab periodically, and in accordance with a predetermined schedule and procedure, conduct internal audits of its activities to verify that its operations continue to comply with requirements of the management system and the International Standard?	QM REV38, 16.1.1.2	*Y
Reviewed the current annual internal audit schedule that was revised on 7/28/15 to include auditing management system practices to ensure complianice with ISO 17025 sections 4.1 to 4.15. The schedule is available in the QA server as well as internal audit summaries. The 2015 management element internal audit was completed from 7/7/15 to 8/5/15.		

4.14.1b

Requirements	Document Review	Assessment Compliant
Does the internal audit program address all elements of the management system, including the testing/calibration activities? It is the responsibility of the quality manager to plan/organize audits as required by the schedule and requested by management.	QM REV38, 16.1.1.2	Y

4.14.1c

Requirements	Document Review	Assessment Compliant
Are such audits carried out by trained/qualified personnel who are, wherever resources permit, independent of the activity to be audited?	QM REV38, 16.1.1.2	Y

Note: The cycle for internal auditing should normally be completed in one year.

4.14.1.A1 **ANAB Requirement – Surveillance and Reassessment**

Requirements	Document Review	Assessment Compliant
Was an internal audit conducted in the last full calendar year?	QM REV38, 16.1.1.1 See internal audit binder	Y

4.14.1.A2 **ANAB Requirement - All**

Requirements	Document Review	Assessment Compliant
Did the last internal audit include witnessing of a sampling of accredited tests/calibrations?	QM REV38, 16.1.1 See internal audit binder	Y

4.14.1.A3 **ANAB Requirement - Satellite Site Activities**

Requirements	Document Review	Assessment Compliant
Does the corporate site include the satellite site in its internal audit? This internal audit shall be carried out according to the procedures of the corporate site including visiting the satellite site(s) by the designated internal auditor.	Not Applicable	Not Applicable

4.14.1.A4 **ANAB Requirement – Initial Accreditation Assessment**

Requirements	Document Review	Assessment Compliant
Has an internal audit been completed within the last 12 months covering all elements of the standard?	QM REV38, 16.1.1 See internal audit binder	Y

4.14.2

Requirements	Document Review	Assessment Compliant
If audit findings cast doubt on the effectiveness of operations or on the correctness or validity of the laboratory's test/calibration results, does the laboratory take timely corrective action and notify customers **in writing** if investigations show that the lab results may have been affected?	QM REV38, 16.1.1.3	*Y
Reviewed CAR #313 for LT2 Holding time issue. The client was notified through e-mail on 7/8/15 for all corrective actions that was performed for their samples and impact to the client samples. The CAR was generated on 7/8/15.		

4.14.3

Requirements	Document Review	Assessment Compliant
Are the areas of activity audited, the audit findings, and corrective actions that arise from them recorded?	QM REV38, 16.1.1.4	*Y
Reviewed CAR #313 for LT2 Holding time issue. The laboratory recorded all its internal audit finding and corrective actions. Audited Karlos Rueckert, client sampling COC, sampling receipt, and sample receiving areas.		

4.14.4

Requirements	Document Review	Assessment Compliant
Do follow-up audit activities verify and record the implementation and effectiveness of the corrective action taken?	QM REV38, 16.1.1.5	*Y
Reviewed CAR#285 for TOC Holding time issue. The CAR was initiated on 3/25/15 and closed after follow-up of corrective implementation on 4/22/15.		

4.15 Management Reviews (also Required for Surveillance Assessments)

4.15.1a

Requirements	Document Review	Assessment Compliant
In accordance with a predetermined schedule and procedure, does the laboratory's top management periodically conduct a review of the laboratory's management system and testing/calibration activities to ensure their continuing suitability and effectiveness, and to introduce necessary changes or improvements?	QM REV38, 16.4.2.3 & latest AMR Report	*Y
Reviewed the last management review (2014 AMR) and was completed on 6/30/15 as per predetermined schedule. It was signed by top management on 7/2/15. The top management reviews the management system and its activities every year in the annual management review process to ensure continuing suitability and effectiveness. 2014 AMR included implementation of changes and		

improvements.

4.15.1b

Requirements	Document Review	Assessment Compliant
Does the review take account of the suitability of policies and procedures?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1c

Requirements	Document Review	Assessment Compliant
Does the review take account of reports from managerial and supervisory personnel?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1d

Requirements	Document Review	Assessment Compliant
Does the review take account of the outcome of recent internal audits?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1e

Requirements	Document Review	Assessment Compliant
Does the review take account of corrective and preventive actions?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1f

Requirements	Document Review	Assessment Compliant
Does the review take account of assessments by external bodies?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1g

Requirements	Document Review	Assessment Compliant
Does the review take account of the results of inter-laboratory comparisons/ proficiency tests?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1h

Requirements	Document Review	Assessment Compliant
Does the review take account of changes in volume and type of work?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1i

Requirements	Document Review	Assessment Compliant
Does the review take account of customer feedback?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1j

Requirements	Document Review	Assessment Compliant
Does the review take account of complaints?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1k

Requirements	Document Review	Assessment Compliant
Does the review take account of recommendations for improvement?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1l

Requirements	Document Review	Assessment Compliant
Does the review take account of other relevant factors, such as quality control activities, resources, and staff training?	QM REV38, 16.4.2.3 & latest AMR Report	Y

4.15.1.A1 **ANAB Requirement – Surveillance and Reassessment**

Requirements	Document Review	Assessment Compliant
Was a management review conducted in the last full calendar year?	QM REV38, 16.4.2.3	Y

4.15.1.A2 - **ANAB Requirement - Satellite Site Activities**

Requirements	Document Review	Assessment Compliant
Do records indicate management reviews have taken into account the satellite site activities?	Not Applicable	*Not Applicable
The laboratory only certified by ANAB in on single facility (Monrovia facility) but we included in the AMR discussion of our satellite sites for quality system improvements.		

4.15.1.A3 **ANAB Requirement – Initial Accreditation Assessment**

Requirements	Document Review	Assessment Compliant
Was a management review conducted in the last 12 months?	QM REV38, 16.4.2.3 & latest AMR Report	Y

Note: Results should feed into the laboratory planning system and should include goals, objectives, and action plans for the coming year.

Note: A management review includes consideration of related subjects at regular management meetings.

4.15.2a

Requirements	Document Review	Assessment Compliant
Are findings from management reviews and actions that arise from them recorded?	QM REV38, 16.4.1	*Y
Reviewed CAR #308 for action items recorded that arose from the 6/30/15 AMR.		

4.15.2b

Requirements	Document Review	Assessment Compliant
Does management ensure that those actions are carried out within an appropriate/agreed timescale?	QM REV38, 16.4.1	Y

Attachment 8.2

eurofins	Always check on-line for validity. **Quality Manual - Monrovia**	Level: **Quality Manual**
Document number: **QM-Monrovia-QM2598**		
Old Reference: **QM**		
Version: **38A**		Organisation level: **4-Business Unit**
Approved by: Effective Date	Document users: **4_EEA_M**	Responsible: **4_EEA_M/D_QRegCons**

3) STATEMENT OF POLICY
- 3.1) INTRODUCTION
- 3.2) QUALITY POLICY
- 3.3) MISSION STATEMENT
- 3.4) CODE OF ETHICS AND POLICY/DATA INTEGRITY PROCEDURES
- 3.5) SERVICE TO THE CLIENT
  - 3.5.1) Client Confidentiality
- 3.6) REVIEW OF REQUESTS AND CONTRACTS/CONTRACT AMENDMENTS
  - 3.6.1) Procedure for the Review of Work Requests
  - 3.6.2) Documentation of Review
- 3.7) EEA STANDARD POLICY ON RESOLUTION OF COMPLAINTS
- 3.8) CAPABILITIES
- 3.9) CERTIFICATION
- 3.10) SUBCONTRACTED LABORATORY WORK
- 3.11) FACILITIES
  - 3.11.1) ACCOMODATIONS
  - 3.11.2) ENVIRONMENTAL CONDITIONS

4) PROGRAM ORGANIZATION AND MANAGEMENT
- 4.1) EEA'S PERSONNEL
  - 4.1.1) President/Laboratory Director: Dennis Leeke
  - 4.1.2) RESERVED
  - 4.1.3) Technical Director: Dr. Andrew Eaton
  - 4.1.4) Asbestos Technical Manager: Carol J. Belt
  - 4.1.5) Client Services Manager/ Deputy Laboratory Director/ Deputy Technical Director: Linda Geddes
  - 4.1.6) Quality Manager/Regulatory Consulting Manager: Ms. Nilda B. Cox
  - 4.1.7) Technical Manager/LCMS Supervisor: Mr. Ali Haghani
  - 4.1.8) Technical Manager/Extraction/GCMS/GC and HPLC Supervisor: Mr. Charles Grady
  - 4.1.9) Technical Manager/Inorganic Supervisor: Mr. Walter Hsieh
  - 4.1.10) Technical Manager/Microbiology Supervisor: Ms. Polly Barrowman
  - 4.1.11) IT Manager: To Be Determined
- 4.2) QUALITY SYSTEMS PROGRAM AND ITS MANAGEMENT
- 4.3) STAFF RESPONSIBILITY
  - 4.3.1) Initial Training
  - 4.3.2) On-going Training/Annual Competency Check
  - 4.3.3) Training Records

5) QUALITY ASSURANCE OBJECTIVES
- 5.1) PRECISION
- 5.2) ACCURACY
- 5.3) REPRESENTATIVENESS/SAMPLING OF SUB-ALIQUOT
- 5.4) COMPARABILITY
- 5.5) COMPLETENESS

DRAFT

evaluation samples, and for coordinating all external audits and PT samples. In addition, the QA department is responsible for maintaining state and agency certifications.

16.1) INTERNAL AUDITS
The audits are carried out by the Quality Manager or designee(s) who will be independent of the activity to be audited. Also, to develop a proactive program for the detection of improper, unethical or illegal actions, the Quality Manager or designee, during the internal audit procedure, includes the auditing of any improper, unethical or illegal action committed by the analyst or supervisor.

16.1.1) Annual and Periodical Internal Audits
16.1.1.1) The laboratory Quality Assurance Group conducts an annual lab internal audit to verify that its operations continue to comply with the requirements of the laboratory's quality system as per TNI-EL-V1M2-2009-4.14.1 and ISO/IEC 17025:2005(E)-4.14.1.

16.1.1.2) The laboratory, in accordance with a predetermined schedule and procedure, conducts internal audits, at least annually, of the activities to verify that the operations continue to comply with the requirements of the quality systems of TNI and ISO 17025 standards. The internal audit program addresses all elements of the quality system, including environmental testing and/or calibration activities. All management elements and lab practices will be witnessed using the ANAB ISO 17025 checklist to ensure compliance with ISO 17025. Results of the internal audits are recorded in the ANAB ISO 17025 checklist. The Quality Manager plans and organizes audits as required by the schedule and requested by management. Such audits are carried out by the Quality Manager and trained QA staff who are independent of the activity to be audited. Personnel are trained not to audit their own activities except when it can be demonstrated that an effective audit will be carried out [TNI-EL-V1M2-2009-4.14.1][ISO/IEC 17025:2005(E)-4.14.1].

16.1.1.3) When audit findings cast doubt on the effectiveness of the operations or on the correctness or validity of the laboratory's environmental test or calibration results, the laboratory takes timely corrective action, and notifies the clients in writing when the investigations show that the laboratory results are affected. The laboratory notifies the client promptly, in writing of any event such as the identification of defective measuring or test equipment that casts doubt on the validity of the results given in any test report or test certificate or amendment to a report or certificate [TNI-EL-V1M2- 2009-4.14.2][ISO/IEC 17025:2005(E)-4.14.2].

16.1.1.4) The area of activity audited, the audit findings, and corrective actions that arise from them are recorded on an internal audit form [TNI-EL-V1M2-2009-4.14.3][ISO/IEC 17025:2005(E)-4.14.3]. See Attachment 16-1 for the internal audit form. The laboratory management ensures that these actions are discharge within the agreed time frame as indicated in the audit finding documentation. Corrective actions are required within 30-days after findings have been reported to the Technical Manager.

16.1.1.5) Follow up audit activities of the laboratory are conducted in 2 to 3 months to verify and record the implementation and effectiveness of the corrective action taken [TNI-EL-V1M2-2009-4.14.4][ISO/IEC 17025:2005(E)-4.14.4].

16.1.2) Data Package Reviews
16.1.2.1) As part of the annual internal audit, data package review is conducted annually by the Quality Manager or designee. At the start of the audit program, PT results obtained by using the drinking water, wastewater, hazardous waste methods are evaluated in order to have an objective assessment on the quality of the data generated by the lab. Annually several analytical methods i.e. at least one representative technology method from Wet Chem, Metals, Rad, GC, HPLC, GCMS, Asbestos and Microbiology are selected either from PT or client data reports for data package reviews. The laboratory ensures that at the end of the year, a representative method from each TNI list of technology for drinking water, wastewater, and hazardous waste analysis have been

DRAFT

Corrective Action Report

(Internal Quality System Audit, Data Package, SOP, Audit Review, Customer Complaints, PT Report)

Date: 7/15/15

Log Number: 329 (ANAB NCR# MS-RA-15-9)

Regulatory Reference or Requirements: ISO 17025, Section 5.11.A8

Responsible Personnel: Shu Liu

Department/Method: QA

Audit By: Matthew Sica

Source of Issue (check all that apply):

Data Inquiry___	Sample Receipt ___	Customer Complaint ___
SOP ___	QC Failure ___	Observation ___
Log In ___	PT Failure _____	Other (explain) ACLASS ISO Audit July 2015

Sample Information:

NA

Brief Description of Problem:

The redesigned report has the ORELAP logo in near proximity to ILAC mark in conjunction with ANAB symbol.

Root Cause of the Problem:

During the 2014 ACLASS surveillance audit, the ACLASS assessor was shown an example of EEA's final report cover page with the ORELAP logo beside the ILAC mark and ACLASS symbol, and no issues arose. The lab was not aware of the new ILAC policy and usage of the ILAC mark before the July 2015 ANAB audit.

Corrective Action:

The EEA final report cover page has been updated to meet the ILAC policy. The ORELAP symbol was moved to the bottom of the report cover page and is no longer in near proximity to the ILAC mark in conjunction with the ANAB symbol. See Attachment 9 for an example EEA final report cover page.

Completed by and Date: STL 7/30/15

Prevention:

EEA will refer to the up to date ANAB and ILAC policies and will verify with ANAB before changing the location or use of the ILAC mark in conjunction with the ANAB symbol to ensure compliance. QA gave instructions to the Marketing-Sales Analyst to update all EEA literature and brochures to meet the ILAC policy. The next print out of the literature and brochures will include the correct placement of the ILAC mark, ANAB logo, and ORELAP logo.

Completed by and Date: STL 07/30/15

Impact on Data Quality:

None

Completed by and Date: STL 7/30/15

Data Disposition:

N/A

Completed by and Date: STL 7/30/15

Client Notification:

N/A

PM Review Signature and Date: N/A 8/4/2015

CAR Completion Due Date: 7/30/15

Responsible for Corrective Action (Print Name and Signature):

Shu Ting Liu

QA Review Signature and Date: 8/4/2015

Quality Manager Signature and Date: Nilda B. Cox 08/3/2015

Follow-up of Corrective Action:

Date:

Status (open/closed):

Additional/Revised Corrective Action Needed:

New Due Date:

Date of Follow-up Audit

Date of Corrective Action Implementation:

Final Due Date not to Exceed 30 days after initial filing

Effectiveness of Corrective Action Taken:

Signature of Responsible Personnel as to the Completion of the CAR:

QA Signature and Date:

Note: If problem is not resolved or corrective action taken is not effective, repeat audit and investigation documentation.

Corrective Action due dates should be 2 weeks after the last follow-up, but not to exceed 30 days after date of initial findings.

Attachment 9

eurofins | Eaton Analytical

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

ilac-MRA

ACLASS ACCREDITED TESTING AT-1807

Laboratory Report

for

Eaton Analytical
180 Blue Ravine Rd.
Suite B
Folsom, CA 95630
Attention: Andora Nguyen

Date of Issue
07/30/2015
EUROFINS EATON ANALYTICAL

NELAP ACCREDITED TNI LABORATORY
ORELAP 4034

Report: 543659
Project: WS
Group: WS PT

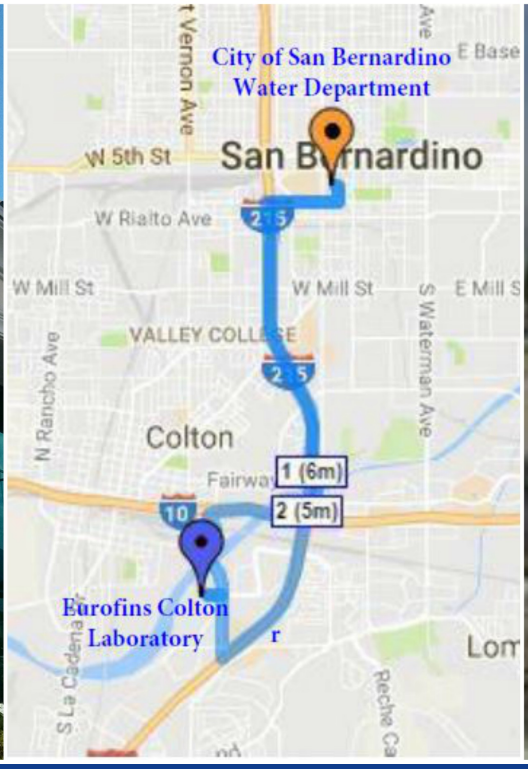
ABC: Alma.B.Capati
Project Manager

* Accredited in accordance with TNI 2009 and ISO/IEC 17025:2005.
* Laboratory certifies that the test results meet all **TNI 2009 and ISO/IEC 17025:2005** requirements unless noted under the individual analysis.
* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
* Test results relate only to the sample(s) tested.

Public Water Supply and Water Reclamation Analytical Services

RFP NO. 1659

August 8, 2016



eurofins | Eaton Analytical

PROPOSAL

eurofins | Eaton Analytical

August 7, 2016

Ms. Sydney Morrison
City of San Bernardino
397 Chandler Place
San Bernardino, CA 92408

Dear Members of the Selection Team:

It has been seven years since Eurofins (at that time MWH Labs) served as the contract lab for the City of San Bernardino. A few things have changed since 2009 but much remains very much the same with us:

- We are still focused solely on water testing
- We still perform every analysis in-house without subcontracting
- We still maintain a certified laboratory just minutes from the City Yard and RIX plant
- We still have the same highly technical and experienced staff working for our customers

All that has changed with us since 2009 is that we are just more of the same:

- More staff means more personnel we can dedicate exclusively to manage your work.
- More of the latest instrumentation means we do not subcontract and can keep costs down
- More investments in IT means we can generate your GWIS & NGCSS files with ease

Eurofins meets or exceeds all 12 selection criteria defined for successfully completing both the potable water and reclamation contracts. We are extremely grateful for this opportunity and your consideration and look forward to working with you in the near future.

Sincerely,
EUROFINS EATON ANALYTICAL, INC.

Rick Zimmer
Senior Accounts Manager

Eurofins Eaton Analytical, Inc.
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629
T | 626-386-1100
F | 626-386-1101
www.EatonAnalytical.com

NOTICE TO BIDDERS Compliance with

Conflict of Interest

Bidders and their prospective subcontractors and suppliers should refer to California Government Code, Section 1090 et. seq. A violation of the provisions will result in the contract being deemed void and ineligible for payment.

Please provide below, the Company's principals:

Company Name:	
Principals' Names (Typed or Printed)	**Title or Position**
Dennis Leeke	President
Andrew Eaton	Vice President
Ralf Fassbender	Secretary & Treasurer

The undersigned certifies, or declares, under penalty of perjury under the laws of the State of California, that the information list above is true and correct.

EXECUTED AT: Garden Grove (CITY) CA (STATE) (ZIP)

ON 8th DAY OF August, 2016.

FIRM: Eurofins Eaton Analytical, Inc. PHONE (626) 386-1100

ADDRESS: 750 Royal Oaks Drive #100 (STREET)

Monrovia (CITY) CA (STATE) 91016 (ZIP)

SIGNED: (Signature of Affiant)

TITLE: President

TABLE OF CONTENTS

SECTION

Experience

This section summarized Eurofins' experience performing compliance analysis in support of drinking water, EPA Superfund, water reclamation and wastewater projects. Eurofins has more experience managing large-scale projects similar to your water system, consent order and NPDES requirements that any other laboratory in Southern California. We are in well-known and in excellent standing with DDW, ELAP and the USEPA.

Four customer references are included in this section for your review.

Qualifications

This section covers Eurofins' comprehensive laboratory certifications, long-standing reputation and commitment to quality assurance and extensive primary and contingency analytical capacity. Eurofins performs all but 3 tests (Strontium, wastewater Dioxin and wastewater Pesticides) in-house.

Our TNI, ELAP, ISO and UCMR certifications are included in this section along with a list of our Standard Operating Procedures. Our QA Manual, Audit Reports and Proficiency Evaluations are included as separate standalone files with this proposal submission.

Work Plan

This section details Eurofins' plan for meeting the City's contract laboratory requirements for both the drinking water and water reclamation projects. Ms. Debbie Frank will again serve as your designated ASM. Ms. Leisl Cole will coordinate front end logistics. Analyses will be performed according to approved EPA methods. Final deliverables meet your GWIS and EPA requirements,

Our Analyte Lists with MRL/MDLs and an example report are included in this section for your review.

EXPERIENCE

Eurofins provides water testing for almost 500 public agencies across the United States. Our resume of experience as a water testing leader includes work on many significant and high profile projects involving regulated and emerging contaminants at the Federal and State level:

- EPA contractor for the National Pesticide Survey (1987-88)
- California ACTL founding member & ELTAC Advisory Board member (1990-Present)
- Standard Methods Joint Editorial Board chair/member (1992)
- Information Collection Rule accredited laboratory (1997-99)
- EPA contractor for UCMR Methods Validation (2000-Present)
- USBR contract laboratory for Cal Delta surveillance monitoring (2000-Present)
- EPA contractor for UCMR Small Systems (2001-Present)
- EPA LT2 ESWTR approved laboratory (2001-Present)
- USGS contract laboratory supporting GAMA program in California (2004-2007)
- EPA 314 method Co-Author for Perchlorate (2010)
- WaterRF 4167 (Methods for PPCP analysis) Co-Principal Investigator (2012)
- California CEC Blue Ribbon Panel participant (2013)

Locally, Eurofins is also the #1 contract laboratory of choice for public water agencies:

Antelope Valley-East Kern Water Agency	Las Virgenes MWD
Burbank DWP	Long Beach Water Department
California American Water Company	Los Angeles County DWP
California Domestic Water Company	Los Angeles CSD
Castaic Lake Water Agency	Los Angeles DWP
Chino Basin Watermaster	Mesa Consolidated Water Company
City of Anaheim	MWD of Southern California
City of Beaumont	Newhall County Water District
City of Chino	Olivenhain Water District
City of Corona	Orange County Water District
City of Monrovia	Padre Dam MWD
City of Redlands	Palmdale Water District
City of San Fernando	Pasadena DWP
City of Santa Monica	Riverside Public Utilities
City of South Pasadena	Santa Clarita Water Company
City of Upland	Santa Fe Irrigation District
Coachella Valley Water District	Sweetwater Authority
Cucamonga Valley Water District	Twin Oaks Valley Water
Elsinore Valley MWD	US Navy - Camp Pendleton
Fallbrook PUD	Valencia Water Company
Foothill MWD	Valley Sanitation District
Glendale DWP	Valley Water Company
Golden States Water Company	Water Facilities Authority
Helix Water District	Water Replenishment District
Indio Water Authority	West Basin MWD
Inland Empire Utilities Agency	Yucaipa Valley Water District

We invite you to contact each of the 4 following agencies to verify Eurofins' value in providing timely, reliable data for compliance and research:

Drinking Water & Superfund Compliance customer

Eurofins has a long-standing contractual relationship with Riverside Public Utilities (RPU), where we have a consistent history and commitment to its plant operations and compliance deadlines. RPU is by far, the largest laboratory contract in Southern California. We process nearly 17,000 samples every year from RPU for routine and specialized parameters, including weekly rush analyses in as little as two working days. Central to our success with RPU has been our attention to their monthly schedules, treatment plant threshold values and our ability to identify and quickly report these critical values in a timely fashion, during the week and (on occasion) on the weekends & holidays. Because RPU water draws from the Alark Hard Chrom Superfund Site and from wells managed by Lockheed Martin, certain testing deemed as Impaired Sources (97-005) require analytical reported via EPA Region 9 electronic reporting scheme.

Mr. David Garcia
Water Quality Manager
951-826-5612
DAGarcia@riversideca.gov)

EPA Superfund Operable Unit customer

Eurofins served as a contract laboratory CDM Smith Constructors since 2009 at the Glendale Operable Unit. The Crystal Springs well field in the eastern part of the San Fernando groundwater basin was contaminated with high levels of PCE, TCE and Hexavalent Chromium. For the last 15 years, the Glendale Operable Unit has been pumping and treated the contaminated groundwater. Eurofins provides testing of samples from the plant daily for routine microbiological and chemical constituents plus more comprehensive analyses monthly and quarterly. EPA Region 9 EQuIS deliverables and data packages are submitted to CDM Smith as part of former reporting to EPA during these monthly and quarterly events.

Ms. Barb Wells
Project Manager
760-438-7755
wellsbl@cdmsmith.com

Water Reclamation Plant Customer

Eurofins provides comprehensive testing in support of the Inland Empire Utilities Agency (IEUA) water quality lab who manages environmental samples from wastewater treatment plants, water reclamation facilities and groundwater extraction and recovery stations. The scope of testing ranges from routine general water quality parameters to regulated/unregulated constituents and CECs. We also perform comprehensive quarterly priority pollutant water quality testing for 5 wastewater treatment plants and 19 surface recharge percolation ponds. IEUA's in-house lab performs selected analyses and Eurofins performs specialized testing for regulated constituents and CECs.

Ms. Nel Groenveld
Laboratory Supervisor
909-993-1813
ngroenveld@ieua.org

Water and Wastewater Customer

Coachella Valley Water District is the largest water system in the Palm Springs area. The District has worked with Eurofins for almost 20 years now utilizing our lab to perform specialized analysis for emerging contaminants. In 2015 the District contracted with Eurofins to provide ongoing testing for water quality compliance monitoring (tests not performed in-house) and also in support of the District's intensive Hexavalent Chromium treatment removal evaluations. These studies involve rapid analysis and reporting of several hundred samples collected over a short period of time. Some samples are also analyzed for Uranium & Selenium in water, brine and concentrate samples where we are tasked with determining hazardous waste characterization and treatment optimization similar to what has been undertaken at the Glendale Operable Unit.

Mr. Steve Bigley
Water Quality Manager
760-398-2651 x286
sbigley@cvwd.org

BIDDER MUST SCAN AND ATTACH THIS FORM TO ELECTRONIC BID

Bidder's Experience

Laboratory to complete this form to list most recent projects similar to that covered in the RFP Documents. Please do not attach experience summary forms, complete this form only. This form shall be completed to be considered a responsive bid.

Please list only projects relevant to the experience requirement:

Project Name	Year	Contract Value	Owner Name (Agency) &Contact Person	Contact Phone	Contact E-Mail
City of Riverside	2004-Present	$500,000/yr	David Garcia	(951) 826-5612	dagarcia@riversideca.gov
Glendale Operable Unit	2000-Present	$300,000/yr	Barb Wells	(760) 438-7755	wellsbl@cdmsmith.com
Inland Empire Utilities Agency	2000-Present	$50,000/yr	Nel Groenveld	(909) 993-1813	ngroenveld@ieus.org

QUALIFICATIONS

Eurofins is the largest potable water focused commercial laboratory in the United States, serving more than 500 clients across the U.S. and in more than 100 foreign countries. We are a full service environmental testing operation certified in 44 states and territories under the Safe Drinking Water Act. We routinely analyze over 200 individual water quality parameters for water and analyses according to 40CFR 141 and 40CFR136 and other acceptable water quality test methodologies.

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM BRANCH

CERTIFICATE OF NELAP ACCREDITATION

Is hereby granted to

MWH LABORATORIES, A DIVISION OF MWH AMERICAS, INC.

750 ROYAL OAKS DRIVE, SUITE 100
MONROVIA, CA 91016

Scope of the Certificate is limited to the "NELAP Fields of Accreditation" which accompany this Certificate.

Continued accredited status depends on successful ongoing participation in the program.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 01114CA
Expiration Date: 1/31/2011
Effective Date: 2/1/2010

Richmond, California
subject to forfeiture or revocation

George C. Kisselgoff, Ph.D., Chief
Environmental Laboratory Accreditation Program Branch

Eurofins is accredited by The NELAC Institute (TNI) and in 45 other states and territories to perform water quality analyses. Our TNI accreditation program (based on ISO17025) relies on our rigorous quality system and includes more stringent and comprehensive standards than non-TNI laboratories. More than 90% of California laboratories do not qualify for TNI accreditation. We have successfully maintained licensure for over 30 consecutive years. Our certification coverage includes accreditation in all 5 fields of testing for drinking water Inorganics, Organics, Radiochemistry, Microbiology and Disinfecton By-Products. We are also ISO 17025 accredited.

Our State of California ELAP certification includes certification for additional California-specific parameters for emerging contaminants such as Hexavalent Chromium, 1,2,3-Trichloropropane and Tert-Butyl Alcohol as well as Cryptosporidium for compliance with EPA's LT2 Enhanced Surface Water Treatment Rule Round 2.

In addition to our TNI, ISO and ELAP accreditations, Eurofins also maintains the following specialty certifications relevant to water quality analysis for CECs and emerging contaminants:

- EPA LT2 approved laboratory for Cryptosporidium
- EPA UCMR approved laboratory for List 1 and List 2 CECs
- EPA ICR approved laboratory for disinfection by-products
- New Jersey DEP approved laboratory for ultra-low PFCs
- Massachusetts DEP approved laboratory for ultra-low Perchlorate analysis

Eurofins' general **Quality Assurance Program (QAP)** is **modeled after the EPA Lab Certification Manual** for Drinking Water Laboratories **and the TNI 2009 Lab Standards** to meet our accreditation requirements. Our program follows a logical work sequence and employs a number of criteria to reflect our commitment to generating accurate, legally and scientifically defensible compliance data.

Confidential

COMPREHENSIVE QUALITY ASSURANCE PLAN

Version 2c

for
MWH LABORATORIES,
A DIVISION OF MWH AMERICAS, INC.
750 Royal Oaks Drive
Suite 100
Monrovia, CA 91016
(626) 386-1100

The QAP is on its 40th revision, is reviewed annually, and includes the following elements:

- Formalized, validated analytical and operational standard operating procedures.
- Annual demonstrations of capability and method detection limits for all compliance tests.
- Ongoing checks to ensure the use of current and acceptance standards.
- Use of minimum reporting levels that are at or above the lowest calibration standard and also above the method detection limit to help foster a high degree of data accuracy.
- Strict adherence to chain of custody procedures and sample documentation.
- Calibration levels that are established at or below federal triggers for increased monitoring.
- Multiple data reviews at the peer, supervisor, independent QA validator and project management levels.
- Use of sophisticated queries for data storage, retrieval, interpretation, control charting and early warning of preliminary results inconsistent with sample history or exceeding regulatory thresholds.
- Data mining and query by location, date or constituent for clients from our LIMS.
- Pre-qualified subcontract laboratories for subcontracted analyses + contingency for tests performed in-house.

Code of Ethics Annual Training & Laboratory Data Integrity Plan

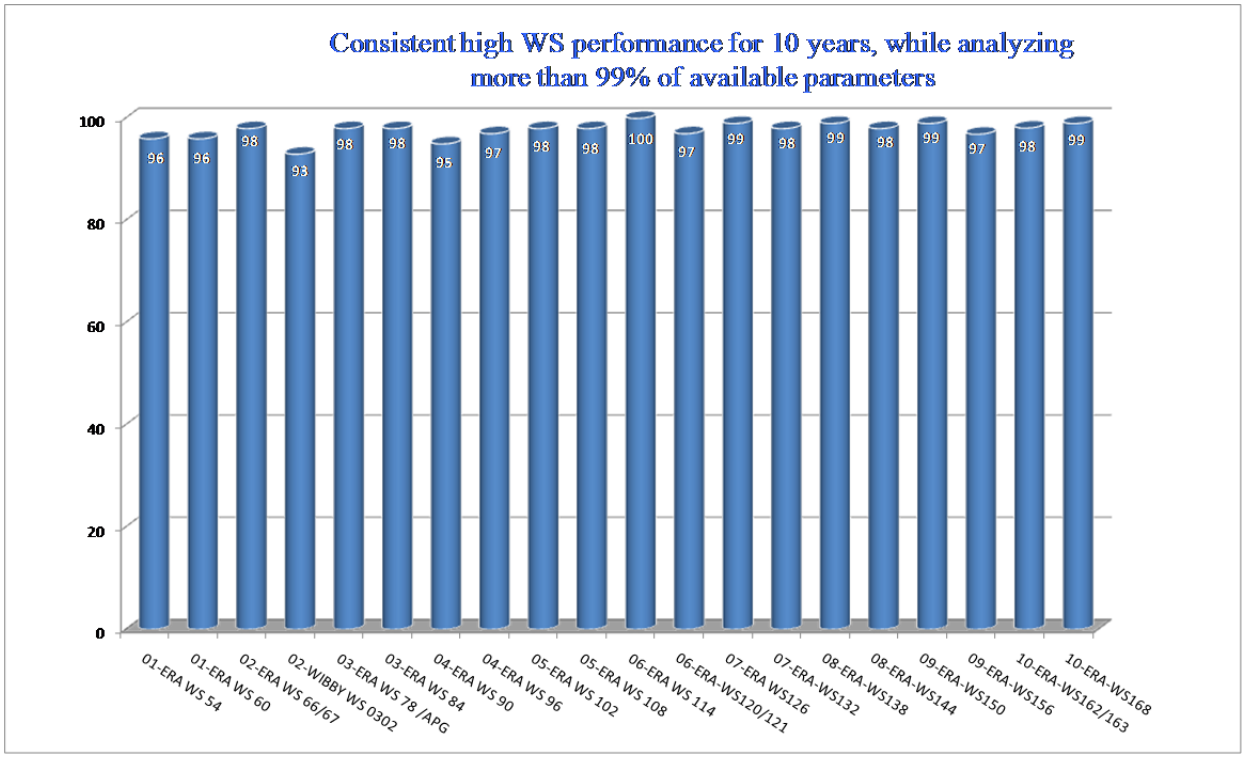
Our **comprehensive Ethics and Data Integrity Program** that is compliant with the Office of Inspector General and includes:

- Annual Ethics and Data Integrity Training for all employees
- Signed Ethics, Data Integrity and Conduct Agreement for all employees
- Periodic, Internal Blind Audits and Monitoring
- Defined Ethics and Data Integrity Reporting Procedures

Eurofins is subject to **pre-scheduled and unannounced audits** by regulators and other 3rd parties as frequently as every year. In contrast, most laboratories are audited by the same regulatory agency every 2-3 years.

- In 2013 Eurofins was audited by the U.S. EPA (for UCMR3), by ACLASS (for ISO 17025) and by the State of California (for ELAP).
- In 2014 Eurofins was audited by the U.S. EPA (for UCMR3), by ACLASS (for ISO 17025), by the State of Arizona (for ADHS) and by the U.S. Bureau of Reclamation.
- In 2015 Eurofins has/will be audited by ANAB (for ISO 17025), by the State of Oregon (for TNI), by the State of Arizona (for LT2) and by the State of California (for LT2).

Eurofins also **participates in the EPA Water Supply and Water Pollution** Proficiency Testing (PT) programs where we have generally scored more than 99% correct for 10 years running. In addition to 3rd party PTs, we also use an internal blind performance evaluation sample program to verify proficiency of all analysts and serve as a referee laboratory for commercial producers and the U.S. EPA in the verification of their test methods.



Eurofins also maintains an extensive primary and contingency analytical resource to support the entirety of the various monitoring program. We employ two analysts and more than four instruments for every major analytical method we offer.

- Bacteriology = 4 analysts + 4 instruments and 1,000 samples/month capacity
- Asbestos = 2 analysts + 1 instrument and 100 samples/month capacity
- General Chemistry = 5 analysts + 8 instruments and 1,000 samples/month capacity
- Nutrients = 4 analysts + 4 instruments and 500 samples/month capacity
- Metals = 7 analysts + 5 instruments and 500 samples/month capacity
- Perchlorate = 6 analysts + 4 instruments and 400 samples/month capacity
- Radiochemistry = 3 analysts + 3 instruments and 200 samples/month capacity
- TOC, TOX, UV = 2 analysts + 2 instruments and 500 samples/month capacity
- Disinfection By-Products = 8 analysts + 8 instruments and 800 samples/month capacity
- Volatile Organics = 3 analysts + 10 instruments and 800 samples/month capacity
- Synthetic Organics = 8 analysts + 8 instruments and 400 samples/month capacity
- Nitrosamines = 5 analysts + 4 instruments and 200 samples/month capacity
- Emerging Contaminants = 7 analysts + 4 instruments and 100 samples/month capacity

This unprecedented analytical resource affords us the capability of processing large sample batch sizes or providing rapid analysis turnaround times for special projects without major disruption to our operation and also in the event of emergency. As an added contingency, Eurofins can also rely upon our East Coast water testing laboratory in South Bend, IN (also TNI and ELAP accredited) as a contingency for routine and specialized drinking water analysis.

Subcontractors

Because of our water-only focused laboratory with extensive capacity and contingency, we perform 100% of your routine and most specialized testing in-house. Only three specialized tests would need to be subcontracted.

PACE Analytical (4222) - Bioassay
Eurofins Lancaster Labs (2792) – Wastewater Dioxins & Furans
Eurofins Calscience (2944CA) – Wastewater Pesticides

All external lab subcontractors meet lab licensure, PT proficiency documentation and QA/QC compliance requirements also employed at our laboratory.

eurofins | Eaton Analytical

Certifications

OREGON

Environmental Laboratory Accreditation Program

NELAP Recognized

Eurofins Eaton Analytical, Inc.,

4034

750 Royal Oaks Drive, Ste 100

Monrovia,CA 91016

IS GRANTED APPROVAL BY ORELAP UNDER THE 2009 TNI STANDARDS, TO PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED BELOW :

Air	*Drinking Water*	*Non Potable Water*	*Solids and Chem. Waste*	*Tissue*
	Chemistry	Chemistry	Chemistry	
	Microbiology	Microbiology		
	Radiochemistry	Radiochemistry		

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS, ANALYTICAL TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN OREGON.

Gary K. Ward, MS

Oregon State Public Health Laboratory

ORELAP Administrator

3150 NW. 229th Ave, Suite 100

Hillsboro, OR 97124

ISSUE DATE: 01/30/2016

EXPIRATION DATE: 01/29/2017

Certificate No: 4034 - 006

Oregon

Environmental Laboratory Accreditation Program

Department of Agriculture, Laboratory Division
Department of Environmental Quality, Laboratory Division
Oregon Health Authority, Public Health Division

NELAP Recognized

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

MATRIX : Drinking Water

Reference	Code	Description
Enterolert®	**60030208**	**Chromogenic/Fluorogenic Quantitative (Enterolert®): Enterococci**

Analyte Code	*Analyte*
2520	Enterococci

EPA 100.2	**10004601**	**Asbestos over 10um in length - Transmission Electron Microscopy**

Analyte Code	*Analyte*
1520	Asbestos

EPA 150.1	**10008409**	**pH - Electrometric Measurement**

Analyte Code	*Analyte*
1900	pH

EPA 1613	**10120408**	**Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS**

Analyte Code	*Analyte*
9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)

EPA 1613B	**10120602**	**Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS**

Analyte Code	*Analyte*
9618	2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD)

EPA 1623	**10236609**	**Filtration/IMS/FA: Cryptosporidium and Giardia**

Analyte Code	*Analyte*
2510	Cryptosporidia
2545	Giardia

EPA 180.1 2	**10011800**	**Turbidity - Nephelometric**

Analyte Code	*Analyte*
2055	Turbidity

EPA 200.7 4.4	**10013806**	**ICP - metals**

Analyte Code	*Analyte*
1000	Aluminum
1015	Barium

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
1020	Beryllium
1025	Boron
1030	Cadmium
1035	Calcium
1040	Chromium
1055	Copper
1760	Hardness (calc.)
1070	Iron
1085	Magnesium
1090	Manganese
1100	Molybdenum
1105	Nickel
1125	Potassium
1990	Silica as SiO2
1150	Silver
1155	Sodium
1185	Vanadium
1190	Zinc

EPA 200.8 5.4 **10014605** **Metals by ICP-MS**

Analyte Code	Analyte
1000	Aluminum
1005	Antimony
1010	Arsenic
1015	Barium
1020	Beryllium
1030	Cadmium
1040	Chromium
1055	Copper
1075	Lead
1090	Manganese
1100	Molybdenum
1105	Nickel
1140	Selenium
1150	Silver
1165	Thallium
3035	Uranium
1185	Vanadium
1190	Zinc

EPA 218.6 3.3 **10028009** **Dissolved Hexavalent Chromium by Ion Chromatography**

Analyte Code	Analyte
1045	Chromium VI

EPA 218.7 1 **10268414** **Determination of Hexavalent Chromium in Drinking Water by Ion Chromatography with Post-column Derivatization and UV-VIS Spectroscopic Determination**

Analyte Code	Analyte
1045	Chromium VI

EPA 245.1 3 **10036609** **Mercury by Cold Vapor Atomic Absorption**

Analyte Code	Analyte
1095	Mercury

EPA 300.0 **10053006** **Ion chromatography - anions.**

Analyte Code	Analyte
1540	Bromide

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
1570	Chlorate
1575	Chloride
1595	Chlorite
1730	Fluoride
1810	Nitrate as N
1820	Nitrate-nitrite
1835	Nitrite
1840	Nitrite as N
2000	Sulfate

EPA 300.1 **10053608** **Ion chromatography - anions.**

Analyte Code	Analyte
1535	Bromate
1540	Bromide
1570	Chlorate
1595	Chlorite

EPA 314.0 **10055400** **Perchlorate in Drinking Water by Ion Chromatography**

Analyte Code	Analyte
1895	Perchlorate

EPA 317.0 2.0 **10237602** **Inorganic Oxyhalide Disinfection Byproducts in Drinking Water**

Analyte Code	Analyte
1535	Bromate

EPA 331.0 1.0 **10059708** **Determination of Perchlorate in Drinking Water by Liquid Chromatography Electrospray Mass Spectrometry (LC/ESI/MS)**

Analyte Code	Analyte
1895	Perchlorate

EPA 335.4 1.0 **10061402** **Methods for the Determination of Inorganic Substances in Environmental Samples**

Analyte Code	Analyte
1645	Total cyanide

EPA 353.2 2 **10067604** **Nitrate/Nitrite Nitrogen - Automated, Cadmium**

Analyte Code	Analyte
1810	Nitrate as N
1820	Nitrate-nitrite
1840	Nitrite as N

EPA 365.1 2 **10070005** **Phosphorous - Colorimetric, Automated persulfate**

Analyte Code	Analyte
1870	Orthophosphate as P

EPA 504.1 **10083008** **EDB/DBCP/TCP micro-extraction, GC/ECD**

Analyte Code	Analyte
5180	1,2,3-Trichloropropane
4570	1,2-Dibromo-3-chloropropane (DBCP)
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)

EPA 505 2 **10083600** **Organohalide pesticides/PCBs (Drinking Water) by GC/ECD**

Analyte Code	Analyte

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
7005	Alachlor
7025	Aldrin
8880	Aroclor-1016 (PCB-1016)
8885	Aroclor-1221 (PCB-1221)
8890	Aroclor-1232 (PCB-1232)
8895	Aroclor-1242 (PCB-1242)
8900	Aroclor-1248 (PCB-1248)
8905	Aroclor-1254 (PCB-1254)
8910	Aroclor-1260 (PCB-1260)
7250	Chlordane (tech.)
7470	Dieldrin
7540	Endrin
7120	gamma-BHC (Lindane, gamma-Hexachlorocyclohexan E)
7685	Heptachlor
7690	Heptachlor epoxide
7810	Methoxychlor
8870	PCBs
8250	Toxaphene (Chlorinated camphene)

EPA 515.4 1 **10088503** **Chlorinated acids Liquid/Solid and GC/ECD**

Analyte Code	Analyte
8545	2,4-D
8530	Bentazon
8555	Dalapon
8595	Dicamba
8620	Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)
6605	Pentachlorophenol
8645	Picloram
8650	Silvex (2,4,5-TP)

EPA 524.2 4 **10089006** **Volatile Organic Compounds by purge and trap GC/MS**

Analyte Code	Analyte
5105	1,1,1,2-Tetrachloroethane

EPA 524.2 4.1 **10088809** **Volatile Organic Compounds GC/MS Capillary Column**

Analyte Code	Analyte
5185	1,1,1-Trichloro-2,2,2-trifluoroethane
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
4670	1,1-Dichloropropene
5150	1,2,3-Trichlorobenzene
5180	1,2,3-Trichloropropane
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
4655	1,2-Dichloropropane
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4660	1,3-Dichloropropane
4620	1,4-Dichlorobenzene
4665	2,2-Dichloropropane
4535	2-Chlorotoluene

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
4540	4-Chlorotoluene
4910	4-Isopropyltoluene (p-Cymene)
4375	Benzene
4385	Bromobenzene
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromoform
4455	Carbon tetrachloride
4475	Chlorobenzene
4575	Chlorodibromomethane
4485	Chloroethane (Ethyl chloride)
4505	Chloroform
4645	cis-1,2-Dichloroethylene
4680	cis-1,3-Dichloropropene
4595	Dibromomethane (Methylene bromide)
4625	Dichlorodifluoromethane (Freon-12)
4765	Ethylbenzene
4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
4835	Hexachlorobutadiene
4840	Hexachloroethane
4900	Isopropylbenzene
4950	Methyl bromide (Bromomethane)
4960	Methyl chloride (Chloromethane)
5000	Methyl tert-butyl ether (MTBE)
4975	Methylene chloride (Dichloromethane)
5005	Naphthalene
4435	n-Butylbenzene
5015	Nitrobenzene
5090	n-Propylbenzene
4440	sec-Butylbenzene
5100	Styrene
4370	T-amylmethylether (TAME)
4445	tert-Butylbenzene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
5205	Total trihalomethanes
4700	trans-1,2-Dichloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
5235	Vinyl chloride
5260	Xylene (total)

EPA 524.3 **10089302** **EPA Method 524.3**

Analyte Code	Analyte
5105	1,1,1,2-Tetrachloroethane
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
4670	1,1-Dichloropropene
5150	1,2,3-Trichlorobenzene
5180	1,2,3-Trichloropropane
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
4655	1,2-Dichloropropane

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4660	1,3-Dichloropropane
4620	1,4-Dichlorobenzene
4665	2,2-Dichloropropane
4535	2-Chlorotoluene
4540	4-Chlorotoluene
4910	4-Isopropyltoluene (p-Cymene)
4375	Benzene
4385	Bromobenzene
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromoform
4455	Carbon tetrachloride
4475	Chlorobenzene
4575	Chlorodibromomethane
4485	Chloroethane (Ethyl chloride)
4505	Chloroform
4645	cis-1,2-Dichloroethylene
4680	cis-1,3-Dichloropropene
4595	Dibromomethane (Methylene bromide)
4625	Dichlorodifluoromethane (Freon-12)
9375	Di-isopropylether (DIPE)
4765	Ethylbenzene
4770	Ethyl-t-butylether (ETBE) (2-Ethoxy-2-methylpropane)
4835	Hexachlorobutadiene
4900	Isopropylbenzene
4950	Methyl bromide (Bromomethane)
4960	Methyl chloride (Chloromethane)
5000	Methyl tert-butyl ether (MTBE)
4975	Methylene chloride (Dichloromethane)
5005	Naphthalene
4435	n-Butylbenzene
5090	n-Propylbenzene
4440	sec-Butylbenzene
5100	Styrene
4370	T-amylmethylether (TAME)
4420	tert-Butyl alcohol
4445	tert-Butylbenzene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
5205	Total trihalomethanes
4700	trans-1,2-Dichloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
5235	Vinyl chloride
5260	Xylene (total)

EPA 525.2 2 **10090003** **Semi-Volatile by SPE extraction and GC/MS**

Analyte Code	Analyte
7355	4,4'-DDD
7360	4,4'-DDE
7365	4,4'-DDT
5505	Acenaphthylene
7005	Alachlor
7025	Aldrin
5555	Anthracene
7065	Atrazine
5575	Benzo(a)anthracene

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
5580	Benzo(a)pyrene
5590	Benzo(g,h,i)perylene
5600	Benzo(k)fluoranthene
5585	Benzo[b]fluoranthene
6062	bis(2-Ethylhexyl)adipate
7160	Butachlor
7250	Chlordane (tech.)
5855	Chrysene
6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
5895	Dibenz(a,h) anthracene
7470	Dieldrin
7540	Endrin
6270	Fluorene
7120	gamma-BHC (Lindane, gamma-Hexachlorocyclohexan E)
7685	Heptachlor
7690	Heptachlor epoxide
6275	Hexachlorobenzene
6285	Hexachlorocyclopentadiene
6315	Indeno(1,2,3-cd) pyrene
7810	Methoxychlor
7835	Metolachlor
7845	Metribuzin
7875	Molinate
6605	Pentachlorophenol
6615	Phenanthrene
8045	Propachlor (Ramrod)
6665	Pyrene
8125	Simazine

EPA 531.2 1 **10091302** **Carbamate Pesticides by Post-column Derivitization HPLC/Fluorescence**

Analyte Code	Analyte
7710	3-Hydroxycarbofuran
7010	Aldicarb (Temik)
7015	Aldicarb sulfone
7020	Aldicarb sulfoxide
7195	Carbaryl (Sevin)
7205	Carbofuran (Furaden)
7805	Methomyl (Lannate)
7940	Oxamyl

EPA 537 1.1 **10091675** **Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS**

Analyte Code	Analyte
6911	Perfluorobutane Sulfonate (PFBS)
6915	Perfluorobutyric acid (PFBA)
6905	Perfluorodecanoic acid (PFDA)
6903	Perfluorododecanoic (PFDDA)
6908	Perfluoroheptanoic acid (PFHA)
6910	Perfluorohexane Sulfonate (PFHS)
6913	Perfluorohexanoic acid (PFHXA)
6906	Perfluorononanoic acid (PFNA)
6912	Perfluorooctanoic acid
6909	Perfluorooctanoic Sulfonate (PFOS)
6914	Perfluoropentanoic acid (PFPEA)
6902	Perfluorotetradecanoic acid (PFTDA)
9563	Perfluorotridecanoic (PFTRIA)
6904	Perfluoroundecanoic acid (PFUDA)

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number.***
Customers. Please verify the current accreditation standing with ORELAP.

EPA 547 **10092009** **Glyphosate by Direct Aqueous Injection by Post-column Derivitization and HPLC/Fluorescence**

Analyte Code	Analyte
9411	Glyphosate

EPA 548.1 1 **10092805** **Endothall by Ion Exchange, Methylation and GC/MS**

Analyte Code	Analyte
7525	Endothall

EPA 549.2 1 **10093400** **Diquat/Paraquat by Liquid/Liquid Extraction and HPLC/UV-VIS**

Analyte Code	Analyte
9390	Diquat
9528	Paraquat

EPA 551.1 1 **10094801** **Chlorination Disinfection Byproducts, Liquid/Liquid Extraction and GC/ECD**

Analyte Code	Analyte
5190	1,1,1-Trichloro-2-propanone
7450	1,1-Dichloro-2-propanone
4570	1,2-Dibromo-3-chloropropane (DBCP)
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
7140	Bromochloroacetonitrile
4395	Bromodichloromethane
4400	Bromoform
4460	Chloral hydrate
4575	Chlorodibromomethane
4505	Chloroform
7270	Chloropicrin
7420	Dibromoacetonitrile
7440	Dichloroacetonitrile
5205	Total trihalomethanes
8270	Trichloroacetonitrile

EPA 900.0 (GPC) **10242601** **Gross Alpha and Gross Beta Radioactivity**

Analyte Code	Analyte
2830	Gross-alpha
2840	Gross-beta

Georgia Institute of Technology, GA: Radium 226/228 1.2 **90016005** **Radium-226 and Radium-228 in Drinking Water by Gamma-ray Spectrometry using HPGE or Ge (Li) Detectors**

Analyte Code	Analyte
2965	Radium-226
2970	Radium-228

OIA 1677 **60031405** **Available Cyanide by FIA, Ligand Exchange and Amperometry**

Analyte Code	Analyte
1523	Available Cyanide

SM 2120 B 20th ED **20224004** **Color by Visual Comparison**

Analyte Code	Analyte
1605	Color

SM 2120 B-2001 online **20039309** **Color by Visual Comparison**

Analyte Code	Analyte
1605	Color

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 2130 B 20th ED **20042404** **Turbidity by Nephelometric Determination**

Analyte Code	Analyte
2055	Turbidity

SM 2130 B 21st ED **20042608** **Turbidity by Nephelometric Method**

Analyte Code	Analyte
2055	Turbidity

SM 2130 B-94 online **20042802** **Turbidity by Nephelometric Method**

Analyte Code	Analyte
2055	Turbidity

SM 2150 B 20th ED **20043407** **Odor by Threshold Odor Test**

Analyte Code	Analyte
1855	Odor

SM 2320 B 20th ED **20045209** **Alkalinity by Titration**

Analyte Code	Analyte
1505	Alkalinity as CaCO3

SM 2320 B-97 1997 **20045607** **Alkalinity by Titration Method**

Analyte Code	Analyte
1505	Alkalinity as CaCO3

SM 2330 B 20th Ed **20003309** **Calcium Carbonate Indices**

Analyte Code	Analyte
1615	Corrosivity

SM 2340 B 20th ED **20046202** **Hardness by calculation**

Analyte Code	Analyte
1550	Calcium hardness as CaCO3
1750	Hardness
1755	Total hardness as CaCO3

SM 2340 B-97 1997 **20046600** **Hardness by calculation**

Analyte Code	Analyte
1550	Calcium hardness as CaCO3
1750	Hardness
1755	Total hardness as CaCO3

SM 2510 B 20th ED **20048208** **Conductivity by Probe**

Analyte Code	Analyte
1610	Conductivity

SM 2510 B-97 1997 **20048606** **Conductivity by Probe**

Analyte Code	Analyte
1610	Conductivity

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 2540 C 20th ED **20050004** **Total Dissolved Solids**

Analyte Code	*Analyte*
1955	Residue-filterable (TDS)

SM 2540 C-97 1997 **20050402** **Total Dissolved Solids Dried at 180C**

Analyte Code	*Analyte*
1955	Residue-filterable (TDS)

SM 4500-Cl G 20th ED **20081203** **Residual Chlorine by DPD Colorimetric Determination**

Analyte Code	*Analyte*
1945	Residual free chlorine
1940	Total residual chlorine

SM 4500-Cl G-2000 online **20081612** **Chlorine (Residual) by DPD Colorimetric Determination**

Analyte Code	*Analyte*
1945	Residual free chlorine
1940	Total residual chlorine

SM 4500-ClO2 D 20th ED **20088806** **Chlorine Dioxide by DPD Method**

Analyte Code	*Analyte*
1590	Chlorine dioxide, res. disinfectant

SM 4500-CN F 20th ED **20092802** **Cyanide by Ion Selective Electrode**

Analyte Code	*Analyte*
1645	Total cyanide

SM 4500-CN G 20th ED **20093203** **Cyanide Amenable to Chlorination after Distillation**

Analyte Code	*Analyte*
1510	Amenable cyanide

SM 4500-CN G-1999 online **20097216** **Cyanide Amenable to Chlorination after Distillation**

Analyte Code	*Analyte*
1510	Amenable cyanide

SM 4500-CN⁻G-97 online **20097205** **Cyanide by Cyanides Amenable to Chlorination after Distillation**

Analyte Code	*Analyte*
1510	Amenable cyanide

SM 4500-F⁻C 20th ED **20102005** **Fluoride by Ion Selective Electrode**

Analyte Code	*Analyte*
1730	Fluoride

SM 4500-F⁻C-97 online **20102403** **Fluoride by Ion-Selective Electrode Method**

Analyte Code	*Analyte*
1730	Fluoride

SM 4500-H+ B 20th ED **20104807** **pH by Probe**

Analyte Code	*Analyte*

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,
750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
1900	pH

SM 4500-H+ B-2000 online **20105219** **pH Value by Electrometric Method .**

Analyte Code	Analyte
1900	pH

SM 4500-P E 20th ED **20123802** **Phosphorus by Ascorbic Acid Reduction**

Analyte Code	Analyte
1870	Orthophosphate as P

SM 4500-Si D 19th ED **20127202** **Silicon by Molybdosilicate Method**

Analyte Code	Analyte
1990	Silica as SiO2

SM 4500-SiO2 C 20th ED **20128205** **Silicon by Molybdosilicate Method**

Analyte Code	Analyte
1990	Silica as SiO2

SM 4500-SiO2 C-97 online **20128603** **Silica by Molybdosilicate Method**

Analyte Code	Analyte
1990	Silica as SiO2

SM 5310 C 20th ED **20138403** **Total Organic Carbon by Persulfate-Ultraviolet Oxidation Method**

Analyte Code	Analyte
1710	Dissolved organic carbon (DOC)
2040	Total organic carbon

SM 5310 C-2000 online **20138812** **Total Organic Carbon by Persulfate-Ultraviolet Oxidation Method**

Analyte Code	Analyte
2040	Total organic carbon

SM 5540 C 20th ED **20144609** **Surfactants as MBAS**

Analyte Code	Analyte
2025	Surfactants - MBAS

SM 5540 C 21st ED **20144803** **Surfactants by Anionic Surfactants as MBAS**

Analyte Code	Analyte
2025	Surfactants - MBAS

SM 5910 B 20th ED **20146003** **UV absorbing organic constituents**

Analyte Code	Analyte
2060	UV 254

SM 6251 B 21st ED **20149002** **Haloacetic acid (HAAs) by Micro Liquid-Liquid Extraction Gas Chromatographic Method**

Analyte Code	Analyte
9312	Bromoacetic acid
9315	Bromochloroacetic acid
9336	Chloroacetic acid
9357	Dibromoacetic acid

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
9360	Dichloroacetic acid
9414	Total haloacetic acids
9642	Trichloroacetic acid

SM 6251 B-94 online **20149206** **Haloacetic acid (HAAs) by Micro Liquid-Liquid Extraction Gas Chromatographic Method**

Analyte Code	Analyte
9312	Bromoacetic acid
9315	Bromochloroacetic acid
9336	Chloroacetic acid
9357	Dibromoacetic acid
9360	Dichloroacetic acid
9414	Total haloacetic acids
9642	Trichloroacetic acid

SM 7110 C (GPC) 21st ED **20158809** **Radioactivity by Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water**

Analyte Code	Analyte
2830	Gross-alpha

SM 7500-RN B 20th Ed **20173700** **Radon by Liquid Scintilllation**

Analyte Code	Analyte
2985	Radon

SM 9215 B (PCA) 20th ED **20181208** **Heterotrophic Plate Count Pour Plate (plate count agar): Heterotrophic Bacteria**

Analyte Code	Analyte
2555	Heterotrophic plate count

SM 9215 B (PCA) 21st ED **20181402** **Heterotrophic Plate Count Pour Plate (plate count agar): Heterotrophic Bacteria**

Analyte Code	Analyte
2555	Heterotrophic plate count

SM 9215 B (PCA)-94 online **20181606** **Heterotrophic Plate Count Pour Plate (plate count agar): Heterotrophic Bacteria**

Analyte Code	Analyte
2555	Heterotrophic plate count

SM 9221 B (LTB) + C MPN 20th ED **20186805** **Multiple Tube Fermentation Quantitative (LTB): Total Coliform**

Analyte Code	Analyte
2500	Total coliforms

SM 9221 B (LTB) + E (EC) + C MPN 20th ED **20188607** **Multiple Tube Fermentation Quantitative (LTB/EC MUG): Total Coliform and Fecal coliform**

Analyte Code	Analyte
2530	Fecal coliforms

SM 9221 B (LTB) + E (EC) 20th ED **20187808** **Multiple Tube Fermentation Qualitative (LTB/EC): Total Coliform and Fecal Coliform**

Analyte Code	Analyte
2530	Fecal coliforms
2500	Total coliforms

SM 9221 B (LTB) + F (EC MUG) + C MPN 20th ED **20190403** **Multiple Tube Fermentation Quantitative (LTB/EC MUG): E. Coli**

Analyte Code	Analyte
2525	Escherichia coli

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 9221 B (LTB) + F (EC MUG) 20th ED **20189600** **Multiple Tube Fermentation Qualitative (LTB/EC MUG): Total Coliform and E. Coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9221 E (EC) 20th ED **20226806** **Multiple Tube Fermentation Quantitative (EC): Fecal Coliform**

Analyte Code	Analyte
2530	Fecal coliforms

SM 9221 E (EC)-94 online **20227207** **Multiple Tube Fermentation Quantitative (EC): Fecal Coliform**

Analyte Code	Analyte
2530	Fecal coliforms

SM 9221 F (EC MUG) 20th ED **20197200** **Multiple Tube Fermentation Qualitative (LTB/EC MUG): Total Coliform and E. Coli**

Analyte Code	Analyte
2525	Escherichia coli
2530	Fecal coliforms
2500	Total coliforms

SM 9221 F (EC MUG)-94 online **20197608** **Multiple Tube Fermentation Qualitative (LTB/EC MUG): Total Coliform and E. Coli**

Analyte Code	Analyte
2525	Escherichia coli
2530	Fecal coliforms
2500	Total coliforms

SM 9223 B (Colilert® Quanti-Tray®) 20th ED **20211205** **Chromogenic/Fluorogenic Quantitative (Colilert®): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert® Quanti-Tray®)-97 online **20211603** **Chromogenic/Fluorogenic Quantitative (Colilert®)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®) 20th ED **20212208** **Chromogenic/Fluorogenic Qualitative (Colilert®): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®)-97 online **20212606** **Chromogenic/Fluorogenic Qualitative (Colilert®)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®-18 Quanti-Tray®) 20th ED **20213201** **Chromogenic/Fluorogenic Quantitative (Colilert®-18): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number.***
Customers. Please verify the current accreditation standing with ORELAP.

SM 9223 B (Colilert®-18 Quanti-Tray®)-97 online **20213609** **Chromogenic/Fluorogenic Quantitative (Colilert®-18): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®-18) 20th ED **20214204** **Chromogenic/Fluorogenic Qualitative (Colilert®-18): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®-18)-97 online **20214602** **Chromogenic/Fluorogenic Qualitative (Colilert®-18)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colisure®) 20th ED **20231407** **Total Coliforms & E. Coli by Qualitative Chromofluorogenic P/A (Colisure)**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colisure®)-97 online **20231805** **Chromogenic/Fluorogenic Qualitative (Colisure®)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9230 B (NaCl) 20th ED **20216200** **Multiple Tube Fermentation Quantitative: Enterococci**

Analyte Code	Analyte
2520	Enterococci

SM 9230 B (PSE) 20th ED **20217203** **Multiple Tube Fermentation Quantitative: Fecal Streptococci**

Analyte Code	Analyte
2540	Fecal streptococci

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

MATRIX : Non-Potable Water

Reference	Code	Description
Enterolert®	**60030208**	**Chromogenic/Fluorogenic Quantitative (Enterolert®): Enterococci**

Analyte Code	*Analyte*
2520	Enterococci

EPA 100.2	**10004601**	**Asbestos over 10um in length - Transmission Electron Microscopy**

Analyte Code	*Analyte*
1520	Asbestos

EPA 120.1	**10006209**	**Conductance - Specific @ 25 C**

Analyte Code	*Analyte*
1610	Conductivity

EPA 160.4	**10256801**	**Total Volatile Solids, ignition @ 550 C.**

Analyte Code	*Analyte*
1970	Residue-volatile

EPA 1623	**10236609**	**Filtration/IMS/FA: Cryptosporidium and Giardia**

Analyte Code	*Analyte*
2510	Cryptosporidia
2545	Giardia

EPA 180.1	**10011402**	**Turbidity - Nephelometric**

Analyte Code	*Analyte*
2055	Turbidity

EPA 200.7 4.4	**10013806**	**ICP - metals**

Analyte Code	*Analyte*
1000	Aluminum
1005	Antimony
1015	Barium
1020	Beryllium
1025	Boron
1030	Cadmium
1035	Calcium
1040	Chromium
1050	Cobalt
1055	Copper
1760	Hardness (calc.)
1070	Iron
1075	Lead
1085	Magnesium
1090	Manganese
1100	Molybdenum
1105	Nickel
1125	Potassium
1990	Silica as SiO2
1150	Silver
1155	Sodium
1160	Strontium
1165	Thallium

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
1175	Tin
1180	Titanium
1185	Vanadium
1190	Zinc

EPA 200.8 5.4 **10014605** **Metals by ICP-MS**

Analyte Code	Analyte
1000	Aluminum
1005	Antimony
1010	Arsenic
1015	Barium
1020	Beryllium
1030	Cadmium
1040	Chromium
1050	Cobalt
1055	Copper
1075	Lead
1090	Manganese
1100	Molybdenum
1105	Nickel
1140	Selenium
1150	Silver
1165	Thallium
1175	Tin
1180	Titanium
1185	Vanadium
1190	Zinc

EPA 218.6 3.3 **10028009** **Dissolved Hexavalent Chromium by Ion Chromatography**

Analyte Code	Analyte
1045	Chromium VI

EPA 245.1 3 **10036609** **Mercury by Cold Vapor Atomic Absorption**

Analyte Code	Analyte
1095	Mercury

EPA 300.0 2.1 **10053200** **Methods for the Determination of Inorganic Substances in Environmental Samples**

Analyte Code	Analyte
1540	Bromide
1575	Chloride
1730	Fluoride
1810	Nitrate as N
1820	Nitrate-nitrite
1840	Nitrite as N
2000	Sulfate

EPA 314.0 **10055400** **Perchlorate in Drinking Water by Ion Chromatography**

Analyte Code	Analyte
1895	Perchlorate

EPA 331.0 1.0 **10059708** **Determination of Perchlorate in Drinking Water by Liquid Chromatography Electrospray Mass Spectrometry (LC/ESI/MS)**

Analyte Code	Analyte
1895	Perchlorate

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

EPA 335.4 **10061208** **Methods for the Determination of Inorganic Substances in Environmental Samples**

Analyte Code	Analyte
1645	Total cyanide

EPA 350.1 2 **10063602** **Ammonia Nitrogen - Colorimetric, Auto Phenate**

Analyte Code	Analyte
1515	Ammonia as N

EPA 351.2 2 **10065404** **Total Kjeldahl Nitrogen - Block Digest, Phenate**

Analyte Code	Analyte
1790	Kjeldahl nitrogen
1795	Kjeldahl nitrogen - total

EPA 353.2 2 **10067604** **Nitrate/Nitrite Nitrogen - Automated, Cadmium**

Analyte Code	Analyte
1810	Nitrate as N
1820	Nitrate-nitrite
1840	Nitrite as N

EPA 365.1 **10069600** **Phosphorous - Colorimetric, Automated persulfate**

Analyte Code	Analyte
1870	Orthophosphate as P
1910	Phosphorus, total

EPA 410.4 **10077006** **Chemical Oxygen Demand - Colorimetric, Automated.**

Analyte Code	Analyte
1565	Chemical oxygen demand

EPA 420.1 **10079206** **Phenolics - Spectrophotometric, manual.**

Analyte Code	Analyte
1905	Total phenolics

EPA 420.4 **10080203** **Phenolics, Total Recoverable by Semi-Automated Colorimetry**

Analyte Code	Analyte
1905	Total phenolics

EPA 624 **10107207** **Volatile Organic Compounds by purge and trap GC/MS**

Analyte Code	Analyte
5105	1,1,1,2-Tetrachloroethane
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5195	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
5180	1,2,3-Trichloropropane
5210	1,2,4-Trimethylbenzene
4570	1,2-Dibromo-3-chloropropane (DBCP)
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
4655	1,2-Dichloropropane

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
4500	2-Chloroethyl vinyl ether
4860	2-Hexanone (MBK)
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
4325	Acrolein (Propenal)
4340	Acrylonitrile
4375	Benzene
4395	Bromodichloromethane
4400	Bromoform
4450	Carbon disulfide
4455	Carbon tetrachloride
4475	Chlorobenzene
4575	Chlorodibromomethane
4485	Chloroethane (Ethyl chloride)
4505	Chloroform
4680	cis-1,3-Dichloropropene
4625	Dichlorodifluoromethane (Freon-12)
4765	Ethylbenzene
4835	Hexachlorobutadiene
5240	m+p-xylene
4950	Methyl bromide (Bromomethane)
4960	Methyl chloride (Chloromethane)
4975	Methylene chloride (Dichloromethane)
5005	Naphthalene
5250	o-Xylene
5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
5225	Vinyl acetate
5235	Vinyl chloride
5260	Xylene (total)

EPA 625 **10300002** **Base/Neutrals and Acids by GC/MS**

Analyte Code	Analyte
5155	1,2,4-Trichlorobenzene
6840	2,4,6-Trichlorophenol
6000	2,4-Dichlorophenol
6130	2,4-Dimethylphenol
6175	2,4-Dinitrophenol
6185	2,4-Dinitrotoluene (2,4-DNT)
6190	2,6-Dinitrotoluene (2,6-DNT)
5795	2-Chloronaphthalene
5800	2-Chlorophenol
6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)
6490	2-Nitrophenol
5945	3,3'-Dichlorobenzidine
5660	4-Bromophenyl phenyl ether (BDE-3)
5700	4-Chloro-3-methylphenol
5825	4-Chlorophenyl phenylether
6500	4-Nitrophenol
5500	Acenaphthene
5505	Acenaphthylene
5545	Aniline

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
5555	Anthracene
5595	Benzidine
5575	Benzo(a)anthracene
5580	Benzo(a)pyrene
5590	Benzo(g,h,i)perylene
5600	Benzo(k)fluoranthene
5585	Benzo[b]fluoranthene
5610	Benzoic acid
5760	bis(2-Chloroethoxy)methane
5765	bis(2-Chloroethyl) ether
5780	bis(2-Chloroisopropyl) ether
5670	Butyl benzyl phthalate
5855	Chrysene
6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
5895	Dibenz(a,h) anthracene
6070	Diethyl phthalate
6135	Dimethyl phthalate
5925	Di-n-butyl phthalate
6200	Di-n-octyl phthalate
6265	Fluoranthene
6270	Fluorene
6275	Hexachlorobenzene
4835	Hexachlorobutadiene
6285	Hexachlorocyclopentadiene
4840	Hexachloroethane
6315	Indeno(1,2,3-cd) pyrene
6320	Isophorone
5005	Naphthalene
5015	Nitrobenzene
6530	n-Nitrosodimethylamine
6545	n-Nitrosodi-n-propylamine
6535	n-Nitrosodiphenylamine
6605	Pentachlorophenol
6615	Phenanthrene
6625	Phenol
6665	Pyrene

EPA 900.0 (GPC) **10242601** **Gross Alpha and Gross Beta Radioactivity**

Analyte Code	Analyte
2830	Gross-alpha
2840	Gross-beta

OIA 1677 **60031405** **Available Cyanide by FIA, Ligand Exchange and Amperometry**

Analyte Code	Analyte
1523	Available Cyanide

SM 2120 B 20th ED **20224004** **Color by Visual Comparison**

Analyte Code	Analyte
1605	Color

SM 2120 B-2001 online **20039309** **Color by Visual Comparison**

Analyte Code	Analyte
1605	Color

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 2130 B 20th ED **20042404** **Turbidity by Nephelometric Determination**

Analyte Code	Analyte
2055	Turbidity

SM 2130 B 21st ED **20042608** **Turbidity by Nephelometric Method**

Analyte Code	Analyte
2055	Turbidity

SM 2130 B-94 online **20042802** **Turbidity by Nephelometric Method**

Analyte Code	Analyte
2055	Turbidity

SM 2150 B 20th ED **20043407** **Odor by Threshold Odor Test**

Analyte Code	Analyte
1855	Odor

SM 2320 B 20th ED **20045209** **Alkalinity by Titration**

Analyte Code	Analyte
1505	Alkalinity as CaCO3

SM 2320 B-97 1997 **20045607** **Alkalinity by Titration Method**

Analyte Code	Analyte
1505	Alkalinity as CaCO3

SM 2340 B 20th ED **20046202** **Hardness by calculation**

Analyte Code	Analyte
1550	Calcium hardness as CaCO3
1750	Hardness
1755	Total hardness as CaCO3

SM 2340 B-97 1997 **20046600** **Hardness by calculation**

Analyte Code	Analyte
1550	Calcium hardness as CaCO3
1750	Hardness
1755	Total hardness as CaCO3

SM 2510 B 20th ED **20048208** **Conductivity by Probe**

Analyte Code	Analyte
1610	Conductivity

SM 2510 B-97 1997 **20048606** **Conductivity by Probe**

Analyte Code	Analyte
1610	Conductivity

SM 2540 B 20th ED **20049007** **Total Solids**

Analyte Code	Analyte
1950	Residue-total

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 2540 B-97 1997 **20049405** **Total Solids Dried at 103 - 105C**

Analyte Code	Analyte
1950	Residue-total

SM 2540 C 20th ED **20050004** **Total Dissolved Solids**

Analyte Code	Analyte
1955	Residue-filterable (TDS)

SM 2540 C-97 1997 **20050402** **Total Dissolved Solids Dried at 180C**

Analyte Code	Analyte
1955	Residue-filterable (TDS)

SM 2540 D 20th ED **20050800** **Total Suspended Solids**

Analyte Code	Analyte
1960	Residue-nonfilterable (TSS)

SM 2540 D-97 1997 **20051201** **Total Suspended Solids Dried at 103 - 105C**

Analyte Code	Analyte
1960	Residue-nonfilterable (TSS)

SM 2540 E 20th ED **20051654** **Total Volatile Solids**

Analyte Code	Analyte
1725	Total, fixed, and volatile residue

SM 2540 E-1997 **20051585** **Fixed & Volatile Solids Ignited at 550 C**

Analyte Code	Analyte
1970	Residue-volatile

SM 2540 F 20th ED **20051803** **Settleable Solids**

Analyte Code	Analyte
1965	Residue-settleable

SM 2540 F-97 online **20052204** **Settleable Solids**

Analyte Code	Analyte
1965	Residue-settleable

SM 3500-Cr B 20th ED **20065809** **Chromium by Colorimetric Method**

Analyte Code	Analyte
1045	Chromium VI

SM 3500-Cr B-2009 online **20066255** **Chromium by Colorimetric Method**

Analyte Code	Analyte
1045	Chromium VI

SM 3500-Cr C 20th ED **20066404** **Ion Chromatographic Method**

Analyte Code	Analyte
1045	Chromium VI

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 3500-Cr C-97 online **20066802** **Chromium by Ion Chromatographic Method**

Analyte Code	*Analyte*
1045	Chromium VI

SM 4500-Cl G 20th ED **20081203** **Residual Chlorine by DPD Colorimetric Determination**

Analyte Code	*Analyte*
1580	Chlorine
1945	Residual free chlorine
1940	Total residual chlorine

SM 4500-Cl G-2000 online **20081612** **Chlorine (Residual) by DPD Colorimetric Determination**

Analyte Code	*Analyte*
1945	Residual free chlorine
1940	Total residual chlorine

SM 4500-CN F 20th ED **20092802** **Cyanide by Ion Selective Electrode**

Analyte Code	*Analyte*
1645	Total cyanide

SM 4500-CN G 20th ED **20093203** **Cyanide Amenable to Chlorination after Distillation**

Analyte Code	*Analyte*
1510	Amenable cyanide

SM 4500-CN G-1999 online **20097216** **Cyanide Amenable to Chlorination after Distillation**

Analyte Code	*Analyte*
1510	Amenable cyanide

SM 4500-CN⁻G-97 online **20097205** **Cyanide by Cyanides Amenable to Chlorination after Distillation**

Analyte Code	*Analyte*
1510	Amenable cyanide

SM 4500-F⁻B 20th ED **20101002** **Fluoride Distillation**

Analyte Code	*Analyte*
1730	Fluoride

SM 4500-F⁻B-97 online **20101400** **Fluoride by Preliminary Distillation Step**

Analyte Code	*Analyte*
1730	Fluoride

SM 4500-F⁻C 20th ED **20102005** **Fluoride by Ion Selective Electrode**

Analyte Code	*Analyte*
1730	Fluoride

SM 4500-F⁻C-97 online **20102403** **Fluoride by Ion-Selective Electrode Method**

Analyte Code	*Analyte*
1730	Fluoride

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 4500-H+ B 20th ED **20104807** **pH by Probe**

Analyte Code	*Analyte*
1900	pH

SM 4500-H+ B-2000 online **20105219** **pH Value by Electrometric Method .**

Analyte Code	*Analyte*
1900	pH

SM 4500-NH3 H 20th ED **20111802** **Ammonia by Flow Injection Analysis**

Analyte Code	*Analyte*
1515	Ammonia as N

SM 4500-NH3 H-97 online **20112203** **Ammonia by Flow Injection Analysis**

Analyte Code	*Analyte*
1515	Ammonia as N

SM 4500-O G 20th ED **20121204** **Dissolved Oxygen by Membrane Electrode Method**

Analyte Code	*Analyte*
1880	Oxygen, dissolved

SM 4500-O G-2001 online **20121657** **Dissolved Oxygen by Membrane Electrode Method**

Analyte Code	*Analyte*
1880	Oxygen, dissolved

SM 4500-P E 20th ED **20123802** **Phosphorus by Ascorbic Acid Reduction**

Analyte Code	*Analyte*
1870	Orthophosphate as P
1910	Phosphorus, total

SM 4500-S2 D-2000 **20125853** **Sulfide by Methylene Blue Method**

Analyte Code	*Analyte*
2005	Sulfide

SM 4500-S2¯D 20th ED **20125400** **Sulfide by Methylene Blue Method**

Analyte Code	*Analyte*
2005	Sulfide

SM 4500-S2¯D-97 online **20125808** **Sulfide by Methylene Blue Method**

Analyte Code	*Analyte*
2005	Sulfide

SM 4500-SiO2 C 20th ED **20128205** **Silicon by Molybdosilicate Method**

Analyte Code	*Analyte*
1990	Silica as SiO2

SM 4500-SiO2 C-97 online **20128603** **Silica by Molybdosilicate Method**

Analyte Code	*Analyte*
1990	Silica as SiO2

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 5210 B 21st ED **20135006** **Biochemical Oxygen Demand, 5-Day (BOD5)**

Analyte Code	*Analyte*
1530	Biochemical oxygen demand
1555	Carbonaceous BOD, CBOD

SM 5210 B-2001 online **20135255** **Biochemical Oxygen Demand (BOD), 5-Day**

Analyte Code	*Analyte*
1530	Biochemical oxygen demand
1555	Carbonaceous BOD, CBOD

SM 5220 D 20th ED **20136407** **Chemical Oxygen Demand by Closed Reflux and Colorimetric Determination**

Analyte Code	*Analyte*
1565	Chemical oxygen demand

SM 5220 D-97 online **20136805** **COD by Closed Reflux, Colorimetric Method**

Analyte Code	*Analyte*
1565	Chemical oxygen demand

SM 5310 C 20th ED **20138403** **Total Organic Carbon by Persulfate-Ultraviolet Oxidation Method**

Analyte Code	*Analyte*
1710	Dissolved organic carbon (DOC)
2040	Total organic carbon

SM 5310 C-2000 online **20138812** **Total Organic Carbon by Persulfate-Ultraviolet Oxidation Method**

Analyte Code	*Analyte*
2040	Total organic carbon

SM 5320 B 20th ED **20140403** **Absorbable Organic Halogen**

Analyte Code	*Analyte*
2045	Total organic halides (TOX)

SM 5540 C 20th ED **20144609** **Surfactants as MBAS**

Analyte Code	*Analyte*
2025	Surfactants - MBAS

SM 5540 C-93 online **20145000** **Surfactants by Anionic Surfactants as MBAS**

Analyte Code	*Analyte*
2025	Surfactants - MBAS

SM 9215 B (PCA) 20th ED **20181208** **Heterotrophic Plate Count Pour Plate (plate count agar): Heterotrophic Bacteria**

Analyte Code	*Analyte*
2555	Heterotrophic plate count

SM 9215 B (PCA) 21st ED **20181402** **Heterotrophic Plate Count Pour Plate (plate count agar): Heterotrophic Bacteria**

Analyte Code	*Analyte*
2555	Heterotrophic plate count

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

SM 9215 B (PCA)-94 online **20181606** **Heterotrophic Plate Count Pour Plate (plate count agar): Heterotrophic Bacteria**

Analyte Code	Analyte
2555	Heterotrophic plate count

SM 9221 B (LTB) + C MPN 20th ED **20186805** **Multiple Tube Fermentation Quantitative (LTB): Total Coliform**

Analyte Code	Analyte
2500	Total coliforms

SM 9221 B (LTB) + E (EC) + C MPN 20th ED **20188607** **Multiple Tube Fermentation Quantitative (LTB/EC MUG): Total Coliform and Fecal coliform**

Analyte Code	Analyte
2530	Fecal coliforms

SM 9221 B (LTB) + E (EC) 20th ED **20187808** **Multiple Tube Fermentation Qualitative (LTB/EC): Total Coliform and Fecal Coliform**

Analyte Code	Analyte
2530	Fecal coliforms
2500	Total coliforms

SM 9221 B (LTB) + F (EC MUG) + C MPN 20th ED **20190403** **Multiple Tube Fermentation Quantitative (LTB/EC MUG): E. Coli**

Analyte Code	Analyte
2525	Escherichia coli

SM 9221 B (LTB) + F (EC MUG) 20th ED **20189600** **Multiple Tube Fermentation Qualitative (LTB/EC MUG): Total Coliform and E. Coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9221 E (EC) 20th ED **20226806** **Multiple Tube Fermentation Quantitative (EC): Fecal Coliform**

Analyte Code	Analyte
2530	Fecal coliforms

SM 9221 E (EC)-94 online **20227207** **Multiple Tube Fermentation Quantitative (EC): Fecal Coliform**

Analyte Code	Analyte
2530	Fecal coliforms

SM 9221 F (EC MUG) 20th ED **20197200** **Multiple Tube Fermentation Qualitative (LTB/EC MUG): Total Coliform and E. Coli**

Analyte Code	Analyte
2525	Escherichia coli
2530	Fecal coliforms
2500	Total coliforms

SM 9221 F (EC MUG)-94 online **20197608** **Multiple Tube Fermentation Qualitative (LTB/EC MUG): Total Coliform and E. Coli**

Analyte Code	Analyte
2525	Escherichia coli
2530	Fecal coliforms
2500	Total coliforms

SM 9223 B (Colilert® Quanti-Tray®) 20th ED **20211205** **Chromogenic/Fluorogenic Quantitative (Colilert®): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
2500	Total coliforms

SM 9223 B (Colilert® Quanti-Tray®)-97 online **20211603** **Chromogenic/Fluorogenic Quantitative (Colilert®)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®) 20th ED **20212208** **Chromogenic/Fluorogenic Qualitative (Colilert®): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®)-97 online **20212606** **Chromogenic/Fluorogenic Qualitative (Colilert®)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®-18 Quanti-Tray®) 20th ED **20213201** **Chromogenic/Fluorogenic Quantitative (Colilert®-18): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®-18 Quanti-Tray®)-97 online **20213609** **Chromogenic/Fluorogenic Quantitative (Colilert®-18): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®-18) 20th ED **20214204** **Chromogenic/Fluorogenic Qualitative (Colilert®-18): Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colilert®-18)-97 online **20214602** **Chromogenic/Fluorogenic Qualitative (Colilert®-18)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colisure®) 20th ED **20231407** **Total Coliforms & E. Coli by Qualitative Chromofluorogenic P/A (Colisure)**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9223 B (Colisure®)-97 online **20231805** **Chromogenic/Fluorogenic Qualitative (Colisure®)-97: Total Coliform and E. coli**

Analyte Code	Analyte
2525	Escherichia coli
2500	Total coliforms

SM 9230 B (NaCl) 20th ED **20216200** **Multiple Tube Fermentation Quantitative: Enterococci**

Analyte Code	Analyte
2520	Enterococci

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 ***Expiration Date:*** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number.***
Customers. Please verify the current accreditation standing with ORELAP.

SM 9230 B (PSE) 20th ED **20217203** **Multiple Tube Fermentation Quantitative: Fecal Streptococci**

Analyte Code	*Analyte*
2540	Fecal streptococci

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

MATRIX : Solids

Reference	Code	Description
EPA 6010B	**10155609**	**ICP - AES**

Analyte Code	Analyte
1005	Antimony
1015	Barium
1020	Beryllium
1030	Cadmium
1040	Chromium
1050	Cobalt
1055	Copper
1075	Lead
1100	Molybdenum
1105	Nickel
1150	Silver
1165	Thallium
1185	Vanadium
1190	Zinc

Reference	Code	Description
EPA 6020	**10156000**	**Inductively Coupled Plasma-Mass Spectrometry**

Analyte Code	Analyte
1005	Antimony
1010	Arsenic
1015	Barium
1020	Beryllium
1030	Cadmium
1040	Chromium
1050	Cobalt
1055	Copper
1075	Lead
1100	Molybdenum
1105	Nickel
1140	Selenium
1150	Silver
1165	Thallium
1185	Vanadium
1190	Zinc

Reference	Code	Description
EPA 7196A	**10162400**	**Chromium Hexavalent colorimetric**

Analyte Code	Analyte
1045	Chromium VI

Reference	Code	Description
EPA 7199	**10163005**	**Determination of Hexavalent Chromium in Drinking Water, Groundwater and Industrial Wastewater Effluents by Ion Chromatography**

Analyte Code	Analyte
1045	Chromium VI

Reference	Code	Description
EPA 7470A	**10165807**	**Mercury in Liquid Waste by Cold Vapor Atomic Absorption**

Analyte Code	Analyte
1095	Mercury

Reference	Code	Description
EPA 8011	**10173009**	**1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane by Microextraction and GC/ECD**

Analyte Code	Analyte
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number.***
Customers. Please verify the current accreditation standing with ORELAP.

Analyte Code	Analyte
4580	Dibromochloropropane

EPA 8260B **10184802** **Volatile Organic Compounds by purge and trap GC/MS**

Analyte Code	Analyte
5105	1,1,1,2-Tetrachloroethane
5160	1,1,1-Trichloroethane
5110	1,1,2,2-Tetrachloroethane
5165	1,1,2-Trichloroethane
4630	1,1-Dichloroethane
4640	1,1-Dichloroethylene
5180	1,2,3-Trichloropropane
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane (Ethylene dichloride)
4655	1,2-Dichloropropane
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
4410	2-Butanone (Methyl ethyl ketone, MEK)
4500	2-Chloroethyl vinyl ether
4860	2-Hexanone (MBK)
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
4325	Acrolein (Propenal)
4340	Acrylonitrile
4375	Benzene
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromoform
4450	Carbon disulfide
4455	Carbon tetrachloride
4475	Chlorobenzene
4575	Chlorodibromomethane
4485	Chloroethane (Ethyl chloride)
4505	Chloroform
4705	cis & trans-1,2-Dichloroethene
4645	cis-1,2-Dichloroethylene
4680	cis-1,3-Dichloropropene
4595	Dibromomethane (Methylene bromide)
4625	Dichlorodifluoromethane (Freon-12)
4765	Ethylbenzene
5240	m+p-xylene
4950	Methyl bromide (Bromomethane)
4960	Methyl chloride (Chloromethane)
5000	Methyl tert-butyl ether (MTBE)
4975	Methylene chloride (Dichloromethane)
5250	o-Xylene
5100	Styrene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)
5225	Vinyl acetate
5235	Vinyl chloride
5260	Xylene (total)

EPA 8270C **10185805** **Semivolatile Organic compounds by GC/MS**

Analyte Code	Analyte
5155	1,2,4-Trichlorobenzene

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
6835	2,4,5-Trichlorophenol
6840	2,4,6-Trichlorophenol
6000	2,4-Dichlorophenol
6130	2,4-Dimethylphenol
6175	2,4-Dinitrophenol
6185	2,4-Dinitrotoluene (2,4-DNT)
6190	2,6-Dinitrotoluene (2,6-DNT)
5795	2-Chloronaphthalene
5800	2-Chlorophenol
6360	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)
6385	2-Methylnaphthalene
6400	2-Methylphenol (o-Cresol)
6460	2-Nitroaniline
6490	2-Nitrophenol
5945	3,3'-Dichlorobenzidine
6465	3-Nitroaniline
5660	4-Bromophenyl phenyl ether (BDE-3)
5700	4-Chloro-3-methylphenol
5745	4-Chloroaniline
5825	4-Chlorophenyl phenylether
6410	4-Methylphenol (p-Cresol)
6470	4-Nitroaniline
6500	4-Nitrophenol
5500	Acenaphthene
5505	Acenaphthylene
5545	Aniline
5555	Anthracene
5595	Benzidine
5575	Benzo(a)anthracene
5580	Benzo(a)pyrene
5590	Benzo(g,h,i)perylene
5600	Benzo(k)fluoranthene
5585	Benzo[b]fluoranthene
5610	Benzoic acid
5630	Benzyl alcohol
5760	bis(2-Chloroethoxy)methane
5765	bis(2-Chloroethyl) ether
5780	bis(2-Chloroisopropyl) ether
4659	bis(2-Chloroisopropyl)ether
5670	Butyl benzyl phthalate
5855	Chrysene
6065	Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)
5895	Dibenz(a,h) anthracene
5905	Dibenzofuran
6070	Diethyl phthalate
6135	Dimethyl phthalate
5925	Di-n-butyl phthalate
6200	Di-n-octyl phthalate
6265	Fluoranthene
6270	Fluorene
6275	Hexachlorobenzene
4835	Hexachlorobutadiene
6285	Hexachlorocyclopentadiene
4840	Hexachloroethane
6315	Indeno(1,2,3-cd) pyrene
6320	Isophorone
5005	Naphthalene
5015	Nitrobenzene
6530	n-Nitrosodimethylamine
6545	n-Nitrosodi-n-propylamine
6535	n-Nitrosodiphenylamine

ORELAP Fields of Accreditation

ORELAP ID: 4034
EPA CODE: CA00006
Certificate: 4034 - 007

Eurofins Eaton Analytical, Inc.,

750 Royal Oaks Drive, Ste 100
Monrovia CA 91016

Issue Date: 11/12/2015 **Expiration Date:** 01/29/2017

As of 11/12/2015 ***this list supercedes all previous lists for this certificate number. Customers. Please verify the current accreditation standing with ORELAP.***

Analyte Code	Analyte
6605	Pentachlorophenol
6615	Phenanthrene
6625	Phenol
6665	Pyrene

EPA 9040B **10197203** **pH Electrometric Measurement**

Analyte Code	Analyte
1900	pH

EPA 9056 **10199005** **Determination of Inorganic Anions by Ion Chromatography**

Analyte Code	Analyte
1730	Fluoride

EPA 9214 **10206403** **Potentiometric Determination of Fluoride in Aqueous Samples with Ion-Selective Electrode**

Analyte Code	Analyte
1730	Fluoride

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

Eurofins Eaton Analytical, Inc. - Monrovia

750 Royal Oaks Drive, Suite 100

Monrovia, CA 91016

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **2813**

Expiration Date: **1/31/2017**

Effective Date: **2/1/2015**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

July 3, 2015

Dennis Leeke
Eurofins Eaton Analytical, Inc. - Monrovia
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016

Dear Dennis Leeke: Certificate No. 2813

This is to advise you that the laboratory named above has been certified as an environmental testing laboratory pursuant to the provisions of the Health and Safety Code (HSC), Division 101, Part 1, Chapter 4, Section 100825, *et seq.*

The Fields of Testing for which this laboratory has been certified are indicated on the enclosed "Fields of Testing" list. The certificate shall remain in effect until **January 31, 2017** unless it is revoked. This certificate is subject to an annual fee as determined by HSC 100860.1(a).

The application for renewal of this certificate must be received before the expiration date of this certificate to remain in force according to the HSC 100845(a).

Any changes in laboratory location or structural alterations, which may affect adversely the quality of analysis in the Fields of Testing for which this laboratory has been granted a certificate, require prior notification. Notification is also required for changes in ownership or laboratory director within 30 days of the change (HSC, Section 100845(b) and (d)).

Your continued cooperation with the above requirements is essential for maintaining the high quality of the data produced by environmental laboratories certified by the State of California.

For general inquiries, please contact our office at the phone number or email address listed below. For specific concerns regarding your application, please call (916) 341-5175 or email Christine.Sotelo@waterboards.ca.gov.

Sincerely,

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

Enclosure

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Accredited Fields of Testing

Eurofins Eaton Analytical, Inc. - Monrovia

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016
Phone: (626) 386-1100

Certificate No.: 2813
Renew Date: 1/31/2017

Field of Testing: 101 - Microbiology of Drinking Water

101.010	001	Heterotrophic Bacteria	SM9215B
101.020	001	Total Coliform	SM9221B-2006
101.021	001	Fecal Coliform	SM9221B,E-2006
101.022	001	E. coli	SM9221B,F-2006
101.060	002	Total Coliform	SM9223B (Colilert)
101.060	003	E. coli	SM9223B (Colilert)
101.070	002	Total Coliform	SM9223B (Colisure)
101.070	003	E. coli	SM9223B (Colisure)
101.120	001	Total Coliform (Enumeration)	SM9221B,C-2006
101.130	001	Fecal Coliform (Enumeration)	SM9221B,E-2006
101.160	001	Total Coliform (Enumeration)	SM9223B (Colilert)
101.195	001	Heterotrophic Bacteria	SM9215B
101.200	001	E. coli (Enumeration)	SM9223 (Colilert Quantity Tray)
101.210	001	E. coli (Enumeration)	SM9221B,F-2006
101.300	001	E. coli	SM9223B (Colilert)
101.301	001	E. coli	SM9223B (Colisure)
101.305	001	E. coli	SM9221B,F-2006
101.307	001	Enterococci	SM9230B
101.310	001	Enterococci	Enterolert

Field of Testing: 102 - Inorganic Chemistry of Drinking Water

		Cyanide	OIA-1677, DW
102.015	001	Hydrogen Ion (pH)	EPA 150.1
102.020	001	Turbidity	EPA 180.1
102.026	001	Calcium	EPA 200.7
102.026	002	Magnesium	EPA 200.7
102.026	003	Potassium	EPA 200.7
102.026	004	Silica	EPA 200.7
102.026	005	Sodium	EPA 200.7
102.026	006	Hardness (calculation)	EPA 200.7
102.030	001	Bromide	EPA 300.0
102.030	002	Chlorate	EPA 300.0
102.030	003	Chloride	EPA 300.0
102.030	004	Chlorite	EPA 300.0
102.030	005	Fluoride	EPA 300.0
102.030	006	Nitrate	EPA 300.0
102.030	007	Nitrite	EPA 300.0
102.030	009	Sulfate	EPA 300.0
102.040	001	Bromide	EPA 300.1

As of 7/3/2015 , this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

102.040	002	Chlorite	EPA 300.1
102.040	003	Chlorate	EPA 300.1
102.040	004	Bromate	EPA 300.1
102.040	008	Nitrite	EPA 300.1
102.044	001	Bromate	EPA 317.0
102.045	001	Perchlorate	EPA 314.0
102.047	001	Perchlorate	EPA 331.0
102.050	001	Cyanide	EPA 335.4
102.060	001	Nitrate (as N) (Calculation)	EPA 353.2
102.061	001	Nitrite	EPA 353.2
102.070	001	Phosphate, Ortho	EPA 365.1
102.095	001	Turbidity	SM2130B-2001
102.100	001	Alkalinity	SM2320B-1997
102.120	001	Hardness (calculation)	SM2340B-1997
102.130	001	Conductivity	SM2510B-1997
102.140	001	Residue, Filterable TDS	SM2540C-1997
102.175	001	Chlorine, Free	SM4500-Cl G-2000
102.175	002	Chlorine, Total Residual	SM4500-Cl G-2000
102.180	001	Chlorine Dioxide	SM4500-ClO2 D
102.191	001	Cyanide, Total	SM4500-CN F
102.192	001	Cyanide, amenable	SM4500-CN G
102.200	001	Fluoride	SM4500-F B,C-1997
102.203	001	Hydrogen Ion (pH)	SM4500-H+ B-2000
102.240	001	Phosphate, Ortho	SM4500-P E
102.242	001	Silica	SM4500-SiO2 C-1997
102.262	001	Total Organic Carbon TOC	SM5310C
102.263	001	Organic carbon-Dissolved DOC	SM5310C
102.270	001	Surfactants	SM5540C
102.280	001	UV254	SM5910B
102.565	001	Cyanide	OIA-1677, DW

Field of Testing: 103 - Toxic Chemical Elements of Drinking Water

103.130	001	Aluminum	EPA 200.7
103.130	003	Barium	EPA 200.7
103.130	004	Beryllium	EPA 200.7
103.130	005	Cadmium	EPA 200.7
103.130	007	Chromium	EPA 200.7
103.130	008	Copper	EPA 200.7
103.130	009	Iron	EPA 200.7
103.130	011	Manganese	EPA 200.7
103.130	012	Nickel	EPA 200.7
103.130	015	Silver	EPA 200.7
103.130	017	Zinc	EPA 200.7
103.130	018	Boron	EPA 200.7
103.140	001	Aluminum	EPA 200.8
103.140	002	Antimony	EPA 200.8
103.140	003	Arsenic	EPA 200.8
103.140	004	Barium	EPA 200.8

103.140	005	Beryllium	EPA 200.8
103.140	006	Cadmium	EPA 200.8
103.140	007	Chromium	EPA 200.8
103.140	008	Copper	EPA 200.8
103.140	009	Lead	EPA 200.8
103.140	010	Manganese	EPA 200.8
103.140	012	Nickel	EPA 200.8
103.140	013	Selenium	EPA 200.8
103.140	014	Silver	EPA 200.8
103.140	015	Thallium	EPA 200.8
103.140	016	Zinc	EPA 200.8
103.140	018	Vanadium	EPA 200.8
103.160	001	Mercury	EPA 245.1
103.301	001	Asbestos	EPA 100.2
103.310	001	Chromium (VI)	EPA 218.6
103.311	001	Chromium (VI)	EPA 218.7

Field of Testing: 104 - Volatile Organic Chemistry of Drinking Water

104.030	001	1,2-Dibromoethane	EPA 504.1
104.030	002	1,2-Dibromo-3-chloropropane	EPA 504.1
104.030	003	1,2,3-Trichloropropane	EPA 504.1
104.035	001	1,2,3-Trichloropropane	SRL 524M-TCP
104.036	001	1,2,3-Trichloropropane	SRL 525M-TCP
104.040	000	Volatile Organic Compounds	EPA 524.2
104.040	001	Benzene	EPA 524.2
104.040	007	n-Butylbenzene	EPA 524.2
104.040	008	sec-Butylbenzene	EPA 524.2
104.040	009	tert-Butylbenzene	EPA 524.2
104.040	010	Carbon Tetrachloride	EPA 524.2
104.040	011	Chlorobenzene	EPA 524.2
104.040	015	2-Chlorotoluene	EPA 524.2
104.040	016	4-Chlorotoluene	EPA 524.2
104.040	019	1,3-Dichlorobenzene	EPA 524.2
104.040	020	1,2-Dichlorobenzene	EPA 524.2
104.040	021	1,4-Dichlorobenzene	EPA 524.2
104.040	022	Dichlorodifluoromethane	EPA 524.2
104.040	023	1,1-Dichloroethane	EPA 524.2
104.040	024	1,2-Dichloroethane	EPA 524.2
104.040	025	1,1-Dichloroethene	EPA 524.2
104.040	026	cis-1,2-Dichloroethene	EPA 524.2
104.040	027	trans-1,2-Dichloroethene	EPA 524.2
104.040	028	Dichloromethane	EPA 524.2
104.040	029	1,2-Dichloropropane	EPA 524.2
104.040	033	cis-1,3-Dichloropropene	EPA 524.2
104.040	034	trans-1,3-Dichloropropene	EPA 524.2
104.040	035	Ethylbenzene	EPA 524.2
104.040	037	Isopropylbenzene	EPA 524.2
104.040	039	Naphthalene	EPA 524.2

104.040	041	N-propylbenzene	EPA 524.2
104.040	042	Styrene	EPA 524.2
104.040	043	1,1,1,2-Tetrachloroethane	EPA 524.2
104.040	044	1,1,2,2-Tetrachloroethane	EPA 524.2
104.040	045	Tetrachloroethene	EPA 524.2
104.040	046	Toluene	EPA 524.2
104.040	047	1,2,3-Trichlorobenzene	EPA 524.2
104.040	048	1,2,4-Trichlorobenzene	EPA 524.2
104.040	049	1,1,1-Trichloroethane	EPA 524.2
104.040	050	1,1,2-Trichloroethane	EPA 524.2
104.040	051	Trichloroethene	EPA 524.2
104.040	052	Trichlorofluoromethane	EPA 524.2
104.040	054	1,2,4-Trimethylbenzene	EPA 524.2
104.040	055	1,3,5-Trimethylbenzene	EPA 524.2
104.040	056	Vinyl Chloride	EPA 524.2
104.040	057	Xylenes, Total	EPA 524.2
104.040	061	Carbon Disulfide	EPA 524.2
104.040	062	Methyl Isobutyl Ketone	EPA 524.2
104.045	000	Trihalomethanes, Total	EPA 524.2
104.045	001	Bromodichloromethane	EPA 524.2
104.045	002	Bromoform	EPA 524.2
104.045	003	Chloroform	EPA 524.2
104.045	004	Dibromochloromethane	EPA 524.2
104.050	000	Gasoline Additives	EPA 524.2
104.050	002	Methyl tert-butyl Ether (MTBE)	EPA 524.2
104.050	003	tert-Amyl Methyl Ether (TAME)	EPA 524.2
104.050	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.2
104.050	005	Trichlorotrifluoroethane	EPA 524.2
104.050	006	tert-Butyl Alcohol (TBA)	EPA 524.2
104.055	000	Volatile Organic Compounds	EPA 524.3
104.055	001	Benzene	EPA 524.3
104.055	002	Carbon Tetrachloride	EPA 524.3
104.055	003	Chlorobenzene	EPA 524.3
104.055	004	1,2-Dichlorobenzene	EPA 524.3
104.055	005	1,4-Dichlorobenzene	EPA 524.3
104.055	006	1,2-Dichloroethane	EPA 524.3
104.055	007	cis-1,2-Dichloroethene	EPA 524.3
104.055	008	trans-1,2-Dichloroethene	EPA 524.3
104.055	009	Dichloromethane	EPA 524.3
104.055	010	1,2-Dichloropropane	EPA 524.3
104.055	011	Ethylbenzene	EPA 524.3
104.055	012	Styrene	EPA 524.3
104.055	013	Tetrachloroethene	EPA 524.3
104.055	014	1,1,1-Trichloroethane	EPA 524.3
104.055	015	Trichloroethene	EPA 524.3
104.055	016	Toluene	EPA 524.3
104.055	017	1,2,4-Trichlorobenzene	EPA 524.3

104.055	018	1,1-Dichloroethene	EPA 524.3
104.055	019	1,1,2-Trichloroethane	EPA 524.3
104.055	020	Vinyl Chloride	EPA 524.3
104.055	021	Xylenes, Total	EPA 524.3
104.056	000	Trihalomethanes, Total	EPA 524.3
104.056	001	Bromodichloromethane	EPA 524.3
104.056	002	Bromoform	EPA 524.3
104.056	003	Chloroform	EPA 524.3
104.056	004	Dibromochloromethane	EPA 524.3
104.057	000	Gasoline Additives	EPA 524.3
104.057	001	Di-isopropyl Ether (DIPE)	EPA 524.3
104.057	002	Methyl tert-butyl Ether (MTBE)	EPA 524.3
104.057	003	tert-Amyl Methyl Ether (TAME)	EPA 524.3
104.057	004	Ethyl tert-butyl Ether (ETBE)	EPA 524.3
104.057	005	Trichlorofluoromethane	EPA 524.3
104.057	006	tert-Butyl Alcohol (TBA)	EPA 524.3
104.057	007	Trichlorotrifluoroethane	EPA 524.3

Field of Testing: 105 - Semi-volatile Organic Chemistry of Drinking Water

105.010	000	Pesticides	EPA 505
105.010	002	Alachlor	EPA 505
105.010	004	Chlordane	EPA 505
105.010	006	Endrin	EPA 505
105.010	007	Heptachlor	EPA 505
105.010	008	Heptachlor Epoxide	EPA 505
105.010	011	Lindane	EPA 505
105.010	012	Methoxychlor	EPA 505
105.010	014	Toxaphene	EPA 505
105.010	015	PCBs as Aroclors (screen)	EPA 505
105.083	000	Chlorinated Acids	EPA 515.4
105.083	001	2,4-D	EPA 515.4
105.083	002	Dinoseb	EPA 515.4
105.083	003	Pentachlorophenol	EPA 515.4
105.083	004	Picloram	EPA 515.4
105.083	005	2,4,5-TP	EPA 515.4
105.083	006	Dalapon	EPA 515.4
105.083	007	Bentazon	EPA 515.4
105.083	008	Dicamba	EPA 515.4
105.090	000	Semi-volatile Organic Compounds	EPA 525.2
105.090	001	Alachlor	EPA 525.2
105.090	002	Aldrin	EPA 525.2
105.090	003	Atrazine	EPA 525.2
105.090	004	Benzo(a)pyrene	EPA 525.2
105.090	005	Butachlor	EPA 525.2
105.090	006	Chlordane	EPA 525.2
105.090	007	Dieldrin	EPA 525.2
105.090	008	Di(2-ethylhexyl) Adipate	EPA 525.2
105.090	009	Di(2-ethylhexyl) Phthalate	EPA 525.2

105.090	013	Endrin	EPA 525.2
105.090	014	Heptachlor	EPA 525.2
105.090	015	Heptachlor Epoxide	EPA 525.2
105.090	016	Hexachlorobenzene	EPA 525.2
105.090	017	Hexachlorocyclopentadiene	EPA 525.2
105.090	018	Lindane	EPA 525.2
105.090	019	Methoxychlor	EPA 525.2
105.090	022	Molinate	EPA 525.2
105.090	023	Pentachlorophenol	EPA 525.2
105.090	025	Simazine	EPA 525.2
105.101	000	Carbamates	EPA 531.2
105.101	001	Carbofuran	EPA 531.2
105.101	002	Oxamyl	EPA 531.2
105.101	003	Aldicarb	EPA 531.2
105.101	004	Aldicarb Sulfone	EPA 531.2
105.101	005	Aldicarb Sulfoxide	EPA 531.2
105.101	006	Carbaryl	EPA 531.2
105.101	007	3-Hydroxycarbofuran	EPA 531.2
105.101	008	Methomyl	EPA 531.2
105.120	001	Glyphosate	EPA 547
105.140	001	Endothall	EPA 548.1
105.150	001	Diquat	EPA 549.2
105.170	010	1,2-Dibromo-3-chloropropane	EPA 551.1
105.170	011	1,2-Dibromoethane	EPA 551.1
105.175	001	Bromodichloromethane	EPA 551.1
105.175	002	Bromoform	EPA 551.1
105.175	003	Chloroform	EPA 551.1
105.175	004	Dibromochloromethane	EPA 551.1
105.175	005	Trihalomethanes	EPA 551.1
105.190	001	Bromoacetic Acid	SM6251B
105.190	003	Chloroacetic Acid	SM6251B
105.190	005	Dibromoacetic Acid	SM6251B
105.190	006	Dichloroacetic Acid	SM6251B
105.190	007	Trichloroacetic Acid	SM6251B
105.190	008	Haloacetic Acids (HAA5)	SM6251B
105.190	010	Chlorinated Herbicides	SM6251B
105.191	001	Haloacetic Acids (HAA5)	SM6251B (20th)
105.230	001	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	EPA 1613
105.230	002	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Screening O	EPA 1613

Field of Testing: 106 - Radiochemistry of Drinking Water

106.010	001	Gross Alpha and Beta Radiation	EPA 900.0
106.010	002	Gross Beta	EPA 900.0
106.092	001	Uranium	EPA 200.8
106.270	001	Gross Alpha by Coprecipitation	SM7110C
106.610	001	Radon-222	SM7500-Rn
106.651	001	Radium-226	Georgia Inst. of Tech. rev 1.2
106.651	002	Radium-228	Georgia Inst. of Tech. rev 1.2

Field of Testing: 107 - Microbiology of Wastewater

107.010	001	Heterotrophic Bacteria	SM9215B
107.020	002	Total Coliform	SM9221B-2006
107.030	002	Total Coliform with Chlorine Present	SM9221B-2006
107.040	002	Fecal Coliform	SM9221C,E-2006
107.050	002	Fecal Coliform with Chlorine Present	SM9221C,E-2006
107.100	002	Fecal Streptococci	SM9230B-2007
107.242	001	Enterococci	Enterolert
107.245	002	E. coli	SM9223B (Colilert)
107.245	003	E. coli	SM9223B (Colisure)
107.247	001	E. coli	SM9221B,F-2006

Field of Testing: 108 - Inorganic Chemistry of Wastewater

108.020	001	Conductivity	EPA 120.1
108.090	001	Residue, Volatile	EPA 160.4
108.110	001	Turbidity	EPA 180.1
108.112	001	Boron	EPA 200.7
108.112	002	Calcium	EPA 200.7
108.112	003	Hardness (calculation)	EPA 200.7
108.112	004	Magnesium	EPA 200.7
108.112	005	Potassium	EPA 200.7
108.112	006	Silica, Dissolved	EPA 200.7
108.112	007	Sodium	EPA 200.7
108.120	001	Bromide	EPA 300.0
108.120	002	Chloride	EPA 300.0
108.120	003	Fluoride	EPA 300.0
108.120	008	Sulfate	EPA 300.0
108.120	012	Nitrate (as N)	EPA 300.0
108.120	013	Nitrate-Nitrite (as N)	EPA 300.0
108.120	014	Nitrite as N	EPA 300.0
108.183	001	Cyanide, Total	EPA 335.4
108.209	001	Ammonia (as N)	EPA 350.1
108.211	002	Kjeldahl Nitrogen, Total (as N)	EPA 351.2
108.232	003	Nitrate-Nitrite (as N)	EPA 353.2
108.232	004	Nitrite as N	EPA 353.2
108.260	001	Phosphate, Ortho	EPA 365.1
108.261	001	Phosphorus, Total	EPA 365.1
108.323	001	Chemical Oxygen Demand	EPA 410.4
108.360	001	Phenols, Total	EPA 420.1
108.362	001	Phenols, Total	EPA 420.4
108.385	001	Color	SM2120B-2001
108.390	001	Turbidity	SM2130B-2001
108.410	001	Alkalinity	SM2320B-1997
108.420	001	Hardness (calculation)	SM2340B-1997
108.430	001	Conductivity	SM2510B-1997
108.439	001	Residue, Volatile	SM2540E-1997
108.440	001	Residue, Total	SM2540B-1997

108.441	001	Residue, Filterable TDS	SM2540C-1997
108.442	001	Residue, Non-filterable TSS	SM2540D-1997
108.443	001	Residue, Settleable	SM2540F-1997
108.465	001	Chlorine, Total	SM4500-Cl G-2000
108.465	002	Chlorine, Free	SM4500-Cl G-2000
108.473	001	Cyanide, amenable	SM4500-CN G-1999
108.474	001	Cyanide, Total	SM4500-CN F-1999
108.480	001	Fluoride	SM4500-F B,C-1997
108.490	001	Hydrogen Ion (pH)	SM4500-H+ B-2000
108.508	002	Ammonia (as N)	SM4500-NH3 G-1997
108.536	001	Oxygen, dissolved	SM4500-O G-2001
108.540	001	Phosphate, Ortho	SM4500-P E-1999
108.541	001	Phosphorus, Total	SM4500-P E-1999
108.552	001	Silica, Dissolved	SM4500-SiO2 C-1997
108.584	001	Sulfide (as S)	SM4500-S= D-2000
108.592	001	Biochemical Oxygen Demand	SM5210B-2001
108.592	002	Carbonaceous BOD	SM5210B-2001
108.595	001	Chemical Oxygen Demand	SM5220D-1997
108.597	001	Organic Carbon-Total (TOC)	SM5310C-2000
108.605	001	Surfactants	SM5540C-2000
108.927	001	Cyanide, available	OIA-1677-09

Field of Testing: 109 - Toxic Chemical Elements of Wastewater

109.010	001	Aluminum	EPA 200.7
109.010	002	Antimony	EPA 200.7
109.010	004	Barium	EPA 200.7
109.010	005	Beryllium	EPA 200.7
109.010	006	Boron	EPA 200.7
109.010	007	Cadmium	EPA 200.7
109.010	009	Chromium	EPA 200.7
109.010	010	Cobalt	EPA 200.7
109.010	011	Copper	EPA 200.7
109.010	012	Iron	EPA 200.7
109.010	013	Lead	EPA 200.7
109.010	015	Manganese	EPA 200.7
109.010	016	Molybdenum	EPA 200.7
109.010	017	Nickel	EPA 200.7
109.010	021	Silver	EPA 200.7
109.010	023	Thallium	EPA 200.7
109.010	024	Tin	EPA 200.7
109.010	025	Titanium	EPA 200.7
109.010	026	Vanadium	EPA 200.7
109.010	027	Zinc	EPA 200.7
109.020	001	Aluminum	EPA 200.8
109.020	002	Antimony	EPA 200.8
109.020	003	Arsenic	EPA 200.8
109.020	004	Barium	EPA 200.8
109.020	005	Beryllium	EPA 200.8

109.020	006	Cadmium	EPA 200.8
109.020	007	Chromium	EPA 200.8
109.020	008	Cobalt	EPA 200.8
109.020	009	Copper	EPA 200.8
109.020	010	Lead	EPA 200.8
109.020	011	Manganese	EPA 200.8
109.020	012	Molybdenum	EPA 200.8
109.020	013	Nickel	EPA 200.8
109.020	014	Selenium	EPA 200.8
109.020	015	Silver	EPA 200.8
109.020	016	Thallium	EPA 200.8
109.020	017	Vanadium	EPA 200.8
109.020	018	Zinc	EPA 200.8
109.020	022	Tin	EPA 200.8
109.020	023	Titanium	EPA 200.8
109.104	001	Chromium (VI)	EPA 218.6
109.190	001	Mercury	EPA 245.1
109.445	002	Chromium (VI)	SM3500-Cr B-2009
109.446	001	Chromium (VI)	SM3500-Cr C-2009

Field of Testing: 110 - Volatile Organic Chemistry of Wastewater

110.040	000	Purgeable Organic Compounds	EPA 624

Field of Testing: 111 - Semi-volatile Organic Chemistry of Wastewater

111.100	000	Acid/base/neutral Organic Compounds	EPA 625
111.103	000	Nitrosamines	EPA 625

Field of Testing: 112 - Radiochemistry of Wastewater

112.010	001	Gross Alpha and Beta Radiation	EPA 900.0
112.010	002	Gross Beta	EPA 900.0

Field of Testing: 114 - Inorganic Chemistry of Hazardous Waste

114.010	001	Antimony	EPA 6010B
114.010	003	Barium	EPA 6010B
114.010	004	Beryllium	EPA 6010B
114.010	005	Cadmium	EPA 6010B
114.010	006	Chromium	EPA 6010B
114.010	007	Cobalt	EPA 6010B
114.010	008	Copper	EPA 6010B
114.010	009	Lead	EPA 6010B
114.010	010	Molybdenum	EPA 6010B
114.010	011	Nickel	EPA 6010B
114.010	013	Silver	EPA 6010B
114.010	014	Thallium	EPA 6010B
114.010	015	Vanadium	EPA 6010B
114.010	016	Zinc	EPA 6010B
114.020	001	Antimony	EPA 6020
114.020	002	Arsenic	EPA 6020
114.020	003	Barium	EPA 6020
114.020	004	Beryllium	EPA 6020

114.020	005	Cadmium	EPA 6020
114.020	006	Chromium	EPA 6020
114.020	007	Cobalt	EPA 6020
114.020	008	Copper	EPA 6020
114.020	009	Lead	EPA 6020
114.020	010	Molybdenum	EPA 6020
114.020	011	Nickel	EPA 6020
114.020	012	Selenium	EPA 6020
114.020	013	Silver	EPA 6020
114.020	014	Thallium	EPA 6020
114.020	015	Vanadium	EPA 6020
114.020	016	Zinc	EPA 6020
114.103	001	Chromium (VI)	EPA 7196A
114.106	001	Chromium (VI)	EPA 7199
114.140	001	Mercury	EPA 7470A
114.240	001	Corrosivity - pH Determination	EPA 9040B
114.250	001	Fluoride	EPA 9056
114.270	001	Fluoride	EPA 9214

Field of Testing: 116 - Volatile Organic Chemistry of Hazardous Waste

116.010	000	EDB and DBCP	EPA 8011
116.080	000	Volatile Organic Compounds	EPA 8260B
116.080	120	Oxygenates	EPA 8260B

Field of Testing: 117 - Semi-volatile Organic Chemistry of Hazardous Waste

117.110	000	Extractable Organics	EPA 8270C

Field of Testing: 129 - Cryptosporidium & Giardia

129.010	001	Cryptosporidium	EPA 1622
129.020	001	Cryptosporidium and Giardia	EPA 1623
129.020	001	Cryptosporidium and Giardia	EPA 1623

CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Eurofins Eaton Analytical
750 Royal Oaks Drive Suite 100
Monrovia, CA 91016

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005

while demonstrating technical competence in the field(s) of

TESTING

Refer to the accompanying Scope(s) of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1807

Certificate Number

ANAB Approval

Certificate Valid To: 09/26/2017
Version No. 001 Issued: 09/04/2015

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated January 2009*).

ANSI-ASQ National Accreditation Board

ANAB

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Eurofins Eaton Analytical

750 Royal Oaks Drive Suite 100, Monrovia, CA
Nilda Cox Phone: 626-386-1100
NildaCox@eurofinsus.com www.eatonanalytical.com

TESTING

Valid to: September 26, 2017 Certificate Number: AT - 1807

I. Environmental

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	Drinking Water	EDTA and NTA	In House Method (Wet Chemistry–SOP2454)	IC
Inorganic Chemistry	Drinking Water	Inorganic Anions and DBPs by Ion Chromatography	EPA 300.0, EPA 300.1	IC
Inorganic Chemistry	Wastewater	Inorganic Anions and DBPs by Ion Chromatography	EPA 300.0	IC
Inorganic Chemistry	Drinking Water	Perchlorate (low and high levels)	EPA 314.0	IC
Inorganic Chemistry	Wastewater	Conductivity	EPA 120.1, SM 2510B	Conductivity Meter
Inorganic Chemistry	Drinking Water	Conductivity	SM 2510B	Conductivity Meter
Inorganic Chemistry	Drinking Water	pH	EPA 150.1	ISE
Inorganic Chemistry	Drinking Water, Wastewater	Cyanide (Free),	SM 4500CN F,	ISE

ilac-MRA ANAB

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	Drinking Water, Wastewater	Fluoride	SM 4500F C	ISE
Inorganic Chemistry	Wastewater	Residue (Volatile)	EPA 160.4	Gravimetry
Inorganic Chemistry	Wastewater	Residue (Total)	SM 2540B	Gravimetry
Inorganic Chemistry	Wastewater, Drinking Water	Residue (Filterable)	SM 2540C	Gravimetry
Inorganic Chemistry	Wastewater	Residue (Non-filterable)	SM 2540D	Gravimetry
Inorganic Chemistry	Drinking Water, Wastewater	Turbidity	EPA 180.1, SM 2130B	Turbidimetry
Inorganic Chemistry	Drinking Water, Wastewater	Metals	EPA 200.7	ICP-AES
Inorganic Chemistry	Drinking Water	Oxyhalides Disinfection Byproducts	EPA 317.0	IC/PCR
Inorganic Chemistry	Drinking Water	Perchlorate	EPA 331.0	LC-ESI-MS
Inorganic Chemistry	Wastewater, Drinking Water	Cyanide (Total)	EPA 335.4	UV/VIS
Inorganic Chemistry	Wastewater, Drinking Water	Nitrate/Nitrite Nitrogen	EPA 353.2	UV/VIS
Inorganic Chemistry	Wastewater, Drinking Water	Ortho Phosphate	EPA 365.1	UV/VIS
Inorganic Chemistry	Drinking Water	Ortho Phosphorous	SM 4500P E	UV/VIS

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	Wastewater	Total Phosphorous	SM 4500 P E	UV/VIS
Inorganic Chemistry	Wastewater	Chemical Oxygen Demand	EPA 410.4	UV/VIS
Inorganic Chemistry	Wastewater	Total Phenols	EPA 420.1	UV/VIS
Inorganic Chemistry	Wastewater, Drinking Water	Total Phenols	EPA 420.4	UV/VIS
Inorganic Chemistry	Wastewater, Drinking Water	Cyanide (amenable)	SM 4500-CN G	UV/VIS
Inorganic Chemistry	Wastewater	Sulfide	SM 4500-$S^{=}$ D	UV/VIS
Inorganic Chemistry	Wastewater	Chemical Oxygen Demand	SM 5220D	UV/VIS
Inorganic Chemistry	Wastewater, Drinking Water	Surfactants	SM 5540C	UV/VIS
Inorganic Chemistry	Drinking Water	Chlorine Dioxide	SM 4500-CLO2 D	UV/VIS
Inorganic Chemistry	Drinking Water	UV 254 Organic Constituents	SM 5910B	UV/VIS
Inorganic Chemistry	Drinking Water, Wastewater	Chlorine, Free, Combined, Total Residual, Chloramines (Colorimetric)	SM 4500-Cl G	UV/VIS
Inorganic Chemistry	Drinking Water, Wastewater	Silica	SM 4500-Si D, SM 4500-SiO2 C	UV/VIS
Inorganic Chemistry	Wastewater	Ammonia	EPA 350.1/ SM 4500-NH3 H	Rapid Flow

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	Wastewater	Kjeldahl Nitrogen	EPA 351.2	Rapid Flow
Inorganic Chemistry	Wastewater	Total Phosphorous	SM 4500-PE	Rapid Flow
Inorganic Chemistry	Drinking Water	Cyanogen Chloride (screen)	In House Method 335 Mod (Wet Chemistry-SOP2470)	Rapid Flow
Inorganic Chemistry	Drinking Water, Wastewater	Alkalinity	SM 2320B	Titration
Inorganic Chemistry	Drinking Water, Wastewater	Sulfite	SM 4500-SO^3B	Titration
Inorganic Chemistry	Drinking Water	Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH Calculated	SM 2330B	Calculation
Inorganic Chemistry	Wastewater	Carbonate as CO3	SM 2330B	Calculation
Inorganic Chemistry	Drinking Water, Wastewater	Bicarbonate Alkalinity as HCO3	SM 2320B	Calculation
Inorganic Chemistry	Drinking Water, Wastewater	Hardness	SM 2340B	Calculation
Inorganic Chemistry	Drinking Water, Wastewater	pH	SM 4500-H+ B	POT
Inorganic Chemistry	Wastewater	Dissolved Oxygen	SM 4500-O G	POT
Inorganic Chemistry	Wastewater	Biochemical Oxygen Demand / Carbonaceous BOD	SM 5210B	POT-TITR
Inorganic Chemistry	Drinking Water	Dissolved Organic Carbon	SM 5310C	IR/COUL

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	Drinking Water, Wastewater	Total Organic Carbon	SM 5310C	IR/COUL
Inorganic Chemistry	Wastewater	Total Organic Halides	SM 5320B	COUL
Microbiology	Drinking Water	Legionella	CDC Legionella Method (SOP-SOP3970)	Culture Technique
Microbiology	Drinking Water	*E. coli*	CFR 141.21(f)(6)(i) (MTF/EC+MUG) (Micro-SOP2347)	MTF-MUG
Microbiology	Drinking Water	Total Coliform / *E. coli*	Micro-SOP2346	Colisure
Microbiology	Drinking Water	Microcystin LR	Micro-SOP2360	ELISA
Microbiology	Drinking Water	Cryptosporidium	EPA 1622, EPA 1623	Filtration/IMS/FA
Microbiology	Drinking Water	Giardia	EPA 1623	Filtration/IMS/FA
Microbiology	Drinking Water	*Pseudomonas* sp.	Micro-SOP2461	Pseudalert
Microbiology	Drinking Water	Heterotrophic Bacteria	In House Method HPC-MF (Micro-SOP2439)	Membrane Filter
Microbiology	Drinking Water	Heterotrophic Bacteria	SM 9215 B	HPC
Microbiology	Drinking Water	Total Coliform (P/A)	SM 9221 A, B	MTF
Microbiology	Drinking Water	Total Coliform (Enumeration)	SM 9221 A, B, C	MTF

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Microbiology	Drinking Water	Fecal Coliform (P/A and Enumeration)	SM 9221 E (MTF/EC)	MTF
Microbiology	Wastewater	Fecal Coliform	SM 9221C, E (MTF/EC)	MTF
Microbiology	Wastewater	Total Coliform, Total Coliform with Chlorine Present	SM 9221B	MTF
Microbiology	Wastewater	Fecal Coliform with Chlorine Present	SM 9221E	MTF
Microbiology	Drinking Water	*E. coli* (Enumeration)	SM 9221B.1 / SM 9221F	MTF/EC+MUG
Microbiology	Drinking Water, Wastewater	Fecal Streptococci, Enterococci	SM 9230B	MTF
Microbiology	Drinking Water	Total Coliform / *E.coli* (P/A and Enumeration)	SM 9223	Colilert
Microbiology	Wastewater	*E. coli*	SM 9223	Colilert
Microbiology	Drinking Water	Total Coliform / *E. coli* (P/A and Enumeration)	SM 9223	ONPG
Microbiology	Drinking Water	*E. coli* (Enumeration)	SM 9223B	Colilert
Microbiology	Drinking Water	Yeast and Mold	SM 9610	Membrane Filter
Radiochemistry	Drinking Water	Uranium by ICP/MS	EPA 200.8	ICP-MS
Radiochemistry	Drinking Water, Wastewater	Gross Alpha and Gross Beta	EPA 900.0	GPC

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Radiochemistry	Drinking Water	Radium-226, Radium-228	GA Institute of Technology (Radiochemistry-SOP2374)	GS
Radiochemistry	Drinking Water, Wastewater	Gross Alpha Coprecipitation	SM 7110 C	GPC
Radiochemistry	Drinking Water	Radon-222	SM 7500RN	LSC
Semi-volatile Organic Chemistry	Drinking Water	2,3,7,8-TCDD	Modified EPA 1613B	GC-MS-MS
Semi-volatile Organic Chemistry	Drinking Water	NDMA	EPA 521	GC-MS-MS
Semi-volatile Organic Chemistry	Drinking Water	Organohalide Pesticides and Commercial Polychlorinated Biphenyl (PCB)	EPA 505	GC-ECD
Semi-volatile Organic Chemistry	Drinking Water	Chlorinated Acids	EPA 515.4	GC-ECD
Semi-volatile Organic Chemistry	Drinking Water	EDB/DBCP and Disinfection Byproducts	EPA 551.1	GC-ECD
Semi-volatile Organic Chemistry	Drinking Water	Carbonyls	EPA 556	GC-ECD
Semi-volatile Organic Chemistry	Drinking Water	Disinfection By-Products and Halo Acetic Acids	SM 6251B	GC-ECD
Semi-volatile Organic Chemistry	Drinking Water	1,4-Dioxane	EPA 522	GC-MS
Semi-volatile Organic Chemistry	Drinking Water	Semi-Volatile Compounds	EPA 525.2	GC-MS
Semi-volatile Organic Chemistry	Drinking Water	Endothall	EPA 548.1	GC-MS

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Semi-volatile Organic Chemistry	Drinking Water	Taste and Odor Analytes	SM 6040E	GC-MS
Semi-volatile Organic Chemistry	Wastewater	Semi-Volatile Compounds	EPA 625	GC-MS
Semi-volatile Organic Chemistry	Drinking Water	N-methyl-carbamoyloximes and N-methylcarbamates	EPA 531.2	HPLC-FLUOR
Semi-volatile Organic Chemistry	Drinking Water	Glyphosate	EPA 547	HPLC-FLUOR
Semi-volatile Organic Chemistry	Drinking Water	Perfluorinated Alkyl Acids	EPA 537	LCMS-MS
Semi-volatile Organic Chemistry	Drinking Water	Endothall	In-house Method (LCMS-SOP2445)	LCMS-MS
Semi-volatile Organic Chemistry	Drinking Water	Acrylamide	In House Method (LCMS-SOP2440)	LCMS
Semi-volatile Organic Chemistry	Drinking Water	Bromate	In House Method (LCMS-SOP2447)	LCMS
Semi-volatile Organic Chemistry	Drinking Water	Phenylurea Pesticides / Herbicides	In House Method, based on EPA 532 (LCMS-SOP2448)	LCMS
Semi-volatile Organic Chemistry	Drinking Water	Hormones	EPA 539	LC-ESI-MS-MS
Semi-volatile Organic Chemistry	Drinking Water	Diquat and Paraquat	EPA 549.2	HPLC-UV
Semi-volatile Organic Chemistry	Drinking Water	Chlorinated Acids	EPA 555	HPLC-UV
Toxic Chemical Elements	Drinking Water, Wastewater	Asbestos	EPA 100.2	TEM

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Toxic Chemical Elements	Drinking Water, Wastewater	Metals	EPA 200.8	ICP-MS
Toxic Chemical Elements	Wastewater	Hexavalent Chromium	EPA 218.6	IC
Toxic Chemical Elements	Drinking Water	Hexavalent Chromium	EPA 218.7, EPA 218.6	IC
Toxic Chemical Elements	Drinking Water, Wastewater	Mercury	EPA 245.1	CV-AAS
Toxic Chemical Elements	Wastewater	Hexavalent Chromium	SM 3500-Cr B	UV/VIS
Volatile Organic Chemistry	Drinking Water	EDB, DCBP	EPA 504.1	GC-ECD
Volatile Organic Chemistry	Drinking Water	Volatile Organic Compounds	EPA SW 846 8260, EPA 524.2, EPA 524.3, In House Method SRL (GCMS-SOP2411)	GC-MS
Volatile Organic Chemistry	Wastewater	Volatile Organic Compounds	EPA 624	GC-MS

II. Water as a Component of Food and Beverage/Beverage/Bottled Water

FIELD OF TEST	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	EDTA and NTA	In House Method (Wet Chemistry–SOP2454)	IC
Inorganic Chemistry	Turbidity	EPA 180.1	Turbidimetry
Inorganic Chemistry	Inorganic Anions and DBPs by Ion Chromatography	EPA 300.0, EPA 300.1	IC

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	Perchlorate (low and high levels)	EPA 314.0	IC
Inorganic Chemistry	Oxyhalides Disinfection Byproducts	EPA 317.0	IC/PCR
Inorganic Chemistry	Perchlorate	EPA 331.0	LC-ESI/MS
Inorganic Chemistry	Cyanide (Total)	EPA 335.4	UV/VIS
Inorganic Chemistry	Nitrate/Nitrite Nitrogen	EPA 353.2	UV/VIS
Inorganic Chemistry	Ortho Phosphate	EPA 365.1, SM 4500P E	UV/VIS
Inorganic Chemistry	Total Phenols	EPA 420.4	UV/VIS
Inorganic Chemistry	Chlorine Dioxide	SM 4500-CLO2 D	UV/VIS
Inorganic Chemistry	Surfactants	SM 5540C	UV/VIS
Inorganic Chemistry	Chlorine, Free, Combined, Total Residual, Chloramines	SM 4500-CL G	UV/VIS
Inorganic Chemistry	Cyanogen Chloride (screen)	In House Method MWH/E 335MOD (Wet Chemistry-SOP2470)	Rapid Flow
Inorganic Chemistry	Ammonia	SM 4500-NH3 H/ EPA 350.1	Rapid Flow
Inorganic Chemistry	Alkalinity	SM 2320B	Titration
Inorganic Chemistry	Sulfite	SM 4500-SO^3B	Titration

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Inorganic Chemistry	Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH	SM 2330B	Calculation
Inorganic Chemistry	Bicarbonate Alkalinity as HCO3	SM 2320B	Calculation
Inorganic Chemistry	Hardness	SM 2340B	Calculation
Inorganic Chemistry	Conductivity	SM 2510B	Conductivity Meter
Inorganic Chemistry	Residue (Filterable)	SM 2540C	Gravimetry
Inorganic Chemistry	Residue (Total)	SM 2540B	Gravimetry
Inorganic Chemistry	Cyanide (Free)	SM 4500CN F	ISE
Inorganic Chemistry	pH	SM 4500-H+B	ISE
Inorganic Chemistry	Fluoride	SM 4500F C	ISE
Inorganic Chemistry	Total Organic Carbon	SM 5310C	IR/COUL
Inorganic Chemistry	Dissolved Oxygen	SM 4500-O G	POT
Inorganic Chemistry	Biochemical Oxygen Demand / Carbonaceous BOD	SM 5210B	POT-TITR
Microbiology	Legionella	CDC Legionella Method (SOP-SOP3970)	Culture Technique

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

FIELD OF TEST	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Microbiology	*E. coli*	CFR 141.21(f)(6)(i) (MTF/EC+MUG) (Micro-SOP2347)	MTF/EC+MUG
Microbiology	Total Coliform / *E. coli*	Micro-SOP2346	Colisure
Microbiology	Microcystin LR	Micro-SOP2360	ELISA
Microbiology	Cryptosporidium	EPA 1622, EPA 1623	Filtration/IMS/FA
Microbiology	Giardia	EPA 1623	Filtration/IMS/FA
Microbiology	*Pseudomonas*	Micro-SOP2461	Pseudalert
Microbiology	Heterotrophic Bacteria	In House Method HPC-MF (Micro-SOP2439)	Membrane Filter
Microbiology	Heterotrophic Bacteria	SM 9215 B	HPC
Microbiology	Total Coliform (P/A)	SM 9221 A, B	MTF/LTB
Microbiology	Total Coliform (Enumeration)	SM 9221 A, B, C	MTF/LTB
Microbiology	*E. coli* (Enumeration)	SM 9221B.1/ SM 9221F	MTF/EC+MUG
Microbiology	Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	MTF/EC
Microbiology	Total Coliform / *E.coli* (P/A and Enumeration)	SM 9223	Colilert
Microbiology	Total Coliform / *E. coli* (PA and Enumeration)	SM 9223	ONPG

FIELD OF TEST	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Microbiology	*E. coli* (Enumeration)	SM 9223B	Colilert
Microbiology	Yeast and Mold	SM 9610	Membrane Filter
Radiochemistry	Uranium by ICP/MS	EPA 200.8	ICP-MS
Radiochemistry	Gross Alpha and Gross Beta	EPA 900.0	GPC
Radiochemistry	Gross Alpha Coprecipitation	SM 7110 C	GPC
Radiochemistry	Radium-226, Radium-228	GA Institute of Technology (Radiochemistry-SOP2374)	GS
Radiochemistry	Radon-222	SM 7500RN	LSC
Semi-volatile Organic Chemistry	2,3,7,8-TCDD	Modified EPA 1613B	GC-MS-MS
Semi-volatile Organic Chemistry	NDMA	EPA 521	GC-MS-MS
Semi-volatile Organic Chemistry	Organohalide Pesticides and Commercial Polychlorinated Biphenyl (PCB)	EPA 505	GC-ECD
Semi-volatile Organic Chemistry	Chlorinated Acids	EPA 515.4	GC-ECD
Semi-volatile Organic Chemistry	EDB/DBCP and Disinfection Byproducts	EPA 551.1	GC-ECD
Semi-volatile Organic Chemistry	Carbonyls	EPA 556	GC-ECD
Semi-volatile Organic Chemistry	Disinfection By-Products and Halo Acetic Acids	SM 6251B	GC-ECD

FIELD OF TEST	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Semi-volatile Organic Chemistry	1,4-Dioxane	EPA 522	GC-MS
GC-MS	Semi-Volatile Compounds	EPA 525.2, EPA 625	GC-MS
GC-MS	Endothall	EPA 548.1	GC-MS
GC-MS	Taste and Odor Analytes	SM 6040E	GC-MS
Semi-volatile Organic Chemistry	N-methyl-carbamoyloximes and N-methylcarbamates	EPA 531.2	HPLC-FLUOR
Semi-volatile Organic Chemistry	Glyphosate	EPA 547	HPLC-FLUOR
Semi-volatile Organic Chemistry	Perfluorinated Alkyl Acids	EPA 537	LCMSMS
Semi-volatile Organic Chemistry	Endothall	In-house Method (LCMS-SOP2445)	LCMSMS
Semi-volatile Organic Chemistry	Acrylamide	In House Method (LCMS-SOP2440)	LCMS
Semi-volatile Organic Chemistry	Bromate	In House Method (LCMS-SOP2447)	LCMS
Semi-volatile Organic Chemistry	Phenylurea Pesticides / Herbicides	In House Method, based on EPA 532 (LCMS-SOP2448)	LCMS
Semi-volatile Organic Chemistry	Hormones	EPA 539	LC-ESI-MS/MS
Semi-volatile Organic Chemistry	Diquat and Paraquat	EPA 549.2	HPLC-UV
Semi-volatile Organic Chemistry	Chlorinated Acids	EPA 555	HPLC-UV

FIELD OF TEST	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Toxic Chemical Elements	Metals	EPA 200.8	ICP-MS
Toxic Chemical Elements	Hexavalent Chromium	EPA 218.6, EPA 218.7	IC
Toxic Chemical Elements	Mercury	EPA 245.1	CV-AAS
Inorganic Chemistry	Metals	EPA 200.7	ICP-AES
Inorganic Chemistry	Dissolved Organic Carbon / Total Organic Carbon	SM 5310C	IR/COUL
Volatile Organic Chemistry	Volatile Organic Compounds	EPA SW 846 8260, EPA 524.2, EPA 524.3, EPA 624, In House Method (GCMS-SOP2411)	GC-MS

Notes:

1. ** = As Applicable*
2. *This scope is formatted as part of a single document including the Certificate of Accreditation No. AT-1807*

Vice President

500 Montgomery St. Suite 625 | Alexandria, VA 22314 | 703-836-0025 | www.anab.org

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268
Office of Ground Water and Drinking Water
Technical Support Center
August 1, 2012

Eurofins Eaton Analytical Inc, formerly known as MWH Labs
750 Royal Oaks Drive
Monrovia, CA 91016

Dear Nilda Cox,

Based on your application and successful participation in a Unregulated Contaminant Monitoring Rule 3 (UCMR 3) Proficiency Testing (PT) Study for each of the listed methods, EPA has given the status of "approved" to your laboratory for the method(s) listed below. This letter is being issued to reflect the name change for your laboratory. The application and PT criteria are listed in the "UCMR 3 Laboratory Approval Requirements and Information Document, Version 2.0." Your laboratory continues to be "approved" to conduct UCMR 3 analyses using the following method(s):

LabID: CA00006

Method Name		**Approval Date**
Hormones by LC/MS/MS	EPA 539	5/2/2012
Perfluorinated compounds by LC/MS/MS	EPA 537	5/2/2012
VOCs by GC/MS	EPA 524.3	5/2/2012
1,4-Dioxane by GC/MS	EPA 522	5/2/2012
Inorganic anions by IC (Chlorate)	EPA 300.1	5/2/2012
Hexavalent chromium by IC	EPA 218.7	5/2/2012
Trace Element Metals by ICP/MS	EPA 200.8	5/2/2012

End of Method List

The information will be forwarded to the UCMR 3 Webmaster for inclusion in the list of UCMR 3 approved laboratories. Your approval status will be maintained during UCMR 3 by continuing to meet the criteria given in the "UCMR 3 Laboratory Approval Requirements and Information Document, Version 2.0," and any revisions to the aforementioned document. Please be aware that you are only permitted to conduct UCMR 3 analyses using those methods for which you have EPA approval. Should you wish to comment on any of these determinations, please write to:

UCMR 3 Laboratory Approval Coordinator
USEPA, Technical Support Center
26 W. Martin Luther King Drive (MS 140)
Cincinnati, OH 45268
UCMR_Sampling_Coordinator@epa.gov

Sincerely,

Michella S. Karapondo
UCMR Laboratory Approval Coordinator

eurofins | Eaton Analytical

Standard Operating Procedures Inventory

SOP No.	D4 group	D4 #	Analytes	Method	Issue Date	Revision No.
LCMS 01	6.11	2446	Determination of Perchlorate in Drinking Water by Liquid Chromatography/Electrospray Ionization Tandem Mass Spectrometry EPA Method 331 - PHG	EPA 331	11/16/2014	5.0
Extract 03	6.12	2375	Liquid - Solid Extraction	EPA 525.2	12/1/2014	17.0
Extract 04	6.12	2376	Determination of Endothall in Drinking Water by Solid Phase Extraction	EPA 548.1	1/20/2016	14.0
Extract 05	6.12	2377	Liquid-Solid Extraction of Diquat and Paraquat	EPA 549.2	8/21/2015	13.0
Extract 11	6.12	2378	Extraction BNA Continuous Liquid-Liquid Extraction	EPA 8270 C	11/14/2014	14.0
Extract 16	6.12	2380	Solid Phase Extraction of Phenols in Drinking Water	EPA 528	1/25/2015	4.0
Extract 18	6.12	2382	Solid Phase Extraction of Selected Pesticides and Flame Retardants in Drinking Water	EPA 527	1/21/2015	5.0
Extract 19	6.12	2383	Determination of Nitrosamines in Drinking Water by Solid Phase Extraction (SPE)	EPA 521	12/1/2014	4.0
Extract 20	6.12	2384	Measurement of Chloroacetanilide and Other Acetamide Herbicide Degradates in Drinking Water by Solid Phase Extraction	EPA 535	RETIRE 10/22/15	5.0
Extract 21	6.12	2385	Determination of MCPA, MCPB and MCPP in Drinking Water by Solid Phase Extraction (SPE) Modified SM 555	EPA 555	12/1/2014	4.0
Extract 22	6.12	2386	Liquid-Solid Extraction	EPA 526	1/25/2015	3.0
Extract 26	6.12	2390	Extraction for Determination of 2,3,7,8-TCDD by Isotope Dilution in Drinking Water by Capillary Column Gas Chromatography with Large Volume Injection and Electron Ionization Tandem Mass Spectrometry (EI/MS/MS) Modified EPA 1613B	EPA 1613B	10/20/2015	4.0
Extract 27	6.12	2391	Determination of 1,4-Dioxane in Drinking Water by Solid Phase Extraction	EPA 522	12/1/2014	5.0
Extract 28	6.12	3973	Extraction for Determination of Microcystins and Nodularin in drinking water by Solid Phase Extraction and Liquid Chromatography/ Tandem Mass Spectrometry (LC/MS/MS)	EPA 544	7/7/2015	1.0
GC 03	6.05	2394	EDB, DBCP and 1,2,3-TCP in water by Microextraction and Gas Chromatography	EPA 504.1	10/2/2015	16.0
GC 08	6.05	2495	Chlorination Disinfection Byproducts and Chlorinated Organic Solvents by Liquid-Lquid Extraction and Gas Chromatography with Electron-Capture Detection	EPA 551.1	7/12/2016	25.0
GC 08A	6.05	2397	Determination of Chlorination Disinfection Byproducts, Chlorinated Solvents, and Halogenated Pesticides/Herbicides in Drinking Water by Liquid-Liquid Extraction and Gas Chromatography with Electron-Capture Detection	EPA 551.1 (EDB, DBCP and HAN)	1/21/2015	1.0
GC 08B	6.05	2906	Determination of Chlorination Disinfection Byproducts, Chlorinated Solvents, and Halogenated Pesticides/Herbicides in Drinking Water by Liquid-Liquid Extraction and Gas Chromatography with Electron-Capture Detection	551.1 CH	1/30/2015	1.0
GC 09	6.05	2402	Haloacetic Acids	SM 6251 B	5/15/2015	21.0
GC 16	6.05	2403	1,2,-Dibromoethane & 1,2-Dibromo-3-Chloropropane by Microextraction & Gas Chromatography	EPA 8011	1/21/2015	9.0
GC 29	6.05	2405	Formation of Trihalomethanes and other disinfection by-products. Modified Standard Method 5710 B and 5710D	SM 5710 B and SM 5710 D	6/7/2016	6.0
GC 34	6.05	2406	Chlorinated Pesticides and PCBs	EPA 505	1/21/2015	16.0
GC 35	6.05	2408	Chlorinated Acids in Drinking Water by Liquid-Liquid Extraction, Derivatization and Gas Chromatograph with Electron Capture Detection	EPA 515.4	11/14/2014	12.0
GC 36	6.05	2409	Chlorine Demand. Modified Standard Method 2350B	SM 2350B	12/4/2015	4.0
GC 37	6.05	2410	Aldehydes	EPA 556	10/2/2015	3.0
GCMS 01	6.04	2395	Volatile Organic Compounds in Drinking Water by GC/MS	EPA 524.2 (Modified)	6/4/2015	28.0
GCMS 01a	6.04	2411	Determination of 1,2,3 Trichloropropane (TCP) in Drinking Water by Purge and Trap GC/MS in SIM Mode	EPA 524.2 (Modified)	10/2/2015	7.0
GCMS 01b	6.04	2412	Determination of tert-Butanol, Epichlorohydrin, 1,2-Dichloropropane, 1,2,3-Trichloropropane and Cyanogen Chloride in Drinking Water by purge and trap GC/MS in SIM mode	EPA 524.2 (Modified)	7/3/2016	5.0
GCMS 01c	6.04	2413	Determination of Benzene in Drinking Water by purge and trap GC/MS in SIM mode	EPA 524.2 (Modified)	1/21/2015	1.0
GCMS 02	6.04	2396	Determination of Semivolatile Organic Compounds in Drinking Water by Gas Chromatography/Mass Spectrometry	EPA 525.2	4/10/2015	31.0
GCMS 03	6.04	2414	Endothall Analysis by GCMS	EPA 548.1	1/8/2016	17.0
GCMS 04	6.04	2416	Volatile Organic Compounds in Aqueous Matrix by GC/MS	EPA 624 (Modified)	7/11/2016	13.0
GCMS 05	6.04	2417	Analysis of Semivolatile Organic Compounds by GCMS	EPA 625	1/8/2016	12.0
GCMS 07	6.04	2418	Volatile Organic Compounds in Water by GC/MS	EPA 8260 B	12/1/2014	12.0
GCMS 08	6.04	2419	Analysis of Semivolatile Organic Compounds by GCMS	EPA 8270 C	1/8/2016	11.0
GCMS 15	6.04	2420	Determination of Selected Semivolatile Organic Compounds in Drinking Water by Solid Phase Extractions and Capillary Column GCMS	EPA 526	6/3/2016	8.0
GCMS 16	6.04	2423	Determination of Phenols in Drinking Water by Capillary Column GCMS	EPA 528 Soda	6/30/2016	7.0
GCMS 17	6.04	2424	Taste and Odor Analytes by Solid Phase Micro-Extraction and GCMS	SM 6040E	9/5/2015	8.0

SOP No.	D4 group	D4 #	Analytes	Method	Issue Date	Revision No.
GCMS 20	6.04	2425	Determination of Nitrosamines in Drinking Water by Capillary Column GC with Large Volume Injection and Chemical Ionization Trap Mass Spectrometry	EPA 521	7/13/2016	6.0
GCMS 23	6.04	2426	Determination of Selected Pesticides and Flame Retardants in Drinking Water by Solid Phase Extraction and Capillary Column Gas Chromatography/Mass Spectrometry (GC/MS)	EPA 527	6/7/2016	6.0
GCMS 24	6.04	2427	Determination of 2,3,7,8-TCDD in Drinking Water by Capillary Column Gas Chromatography with Large Volume Injection and Electron Ionization Tandem Mass Spectrometry (EI/MS/MS)	EPA 1613B (Modified)	1/8/2016	6.0
GCMS 26	6.04	2496	Determination of 1,4-Dioxane in Drinking Water by Solid Phase Extraction with GCMS with Selected Ion Monitoring (SIM)	EPA 522	12/2/2014	6.0
GCMS 27	6.04	2498	Volatile Organic Compounds in Drinking Water by GC/MS	EPA 524.3	9/5/2015	7.0
GCMS 28	6.04	2428	Determination of Emerging Contaminants in Drinking Water by Capillary Column Gas Chromatography with Electron Ionization Tandem Mass Spectrometry (EI/MS/MS)	In-house	6/7/2016	2.0
HPLC 02	6.06	2343	Glyphosate Analysis in Drinking Water by High Performance Liquid Chromatography (HPLC)	EPA 547	8/7/2015	18.0
HPLC 03	6.06	2392	Diquat and Paraquat Analysis in Drinking Water by HPLC	EPA549.2	7/12/2016	19.0
HPLC 05	6.06	2344	Carbamates Analysis in Drinking Water by HPLC with post column derivatization	EPA 531.2	12/4/2015	12.0
HPLC 06	6.06	2442	Determination of Phenylurea Compounds in Drinking Water by Solid Phase Extraction and High Performance Liquid Chromatography with UV Detection.	EPA 532	Retire 9/22/15	5.0
HPLC 08	6.06	2429	Analysis of MCPA, MCPB and MCPP in Drinking Water by HPLC	EPA 555	2/3/2015	5.0
IC 01/ Wet Chem 16	6.03	2457	Determination of Perchlorate in Drinking Water using Ion Chromatography	EPA 314.0/ CADHS 300.0 Modified	11/14/2014	11.0
IC 02/ Wet Chem 25	6.03	2450	Determination of Anions and Inorganic Disinfectant By-Products by Ion Chromatography	EPA 300.0, 9056	12/4/2015	23.0
IC 03/ Wet Chem 40	6.03	2451	Determination of Inorganic Anions and trace Bromate in Drinking Water using Ion Chromatography by the addition of a Post-column reagent and Absorbance Detector in Series with an Electrochemical Detector	EPA 300.1/EPA 317.0	11/14/2014	23.0
IC 04/ Wet Chem 48	6.03	2452	Determination of Low Level Perchlorate in Drinking Water using Ion Chromatography	EPA 314.0	12/1/2014	6.0
IC 05/ Wet Chem 49	6.03	2453	Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by IC	EPA 218.6	8/21/2015	8.0
IC 06/ Wet Chem 54	6.03	2454	Determination of EDTA & NTA in Water Using Ion Chromatography by the Addition of a Post-column Reagent and Absorbance Detector	Metrohm Method	1/25/2015	2.0
IC 07/ Wet Chem 55	6.03	2455	Chlorate by 300.1	EPA 300.1	8/21/2015	6.0
IC 08/ Wet Chem 56	6.03	2456	UCMR3 – Determination of Hexavalent Chromium in Drinking Water by Ion Chromatography with Post Column Derivatization and UV/VIS Detection	EPA 218.7	3/14/2015	6.0
LCMS	6.11	2432	Measurement of Chloroacetanilide and other Acetamide Herbicide Degradates in Drinking Water by Solid Phase Extraction (SPE) and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)	EPA 535	RETIRE 10/22/15	5.0
LCMS 03	6.11	2440	Determination of Acrylamide in Drinking Water by Liquid Chromatography Electrospray Ionization/Mass Spectrometry	Acrylamide	1/22/2015	3.0
LCMS 05	6.11	2434	The Determination of Perfluorinated Pollutants in Environmental Matrices by Direct Injection with High-Performance Liquid Chromatography/Mass Spectrometry	PFC	1/22/2015	1.0
LCMS 06	6.11	2435	Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)	EPA 537	12/1/2014	6.0
LCMS 07	6.11	2444	Determination of Iodide and Iodate in Drinking Water by Liquid Chromatography/Electrospray Ionization Tandem Mass Spectrometry	In-house	7/13/2016	2.0
LCMS 08	6.11	2443	The Determination of Personal Care Products, Pharmaceutical (PPCP) and Endocrine Disrupters Compounds (EDC), Herbicide and Degradates in Environmental Matrices by Online Solid-Phase Extraction Coupled with High-Performance Liquid Chromatography/Mass Spectrometry in Tandem	PPCP	5/27/2016	3.1
LCMS 09	6.11	2431	Determination of Hormones in Drinking Water by Solid Phase Extraction (SPE) and Liquid Chromatography Electrospray Ionization Tandem Mass Spectrometry (LC-ESI-MS/MS)	EPA 539	7/19/2016	8.0
LCMS 11	6.11	2716	Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)	UCMR3 537	7/13/2016	3.0
LCMS 12	6.11	2447	Determination of Bromate in Drinking Water by Liquid Chromatography/Electrospray Ionization Tandem Mass Spectrometry	In-House, based on EPA 331.0	7/8/2016	2.0
LCMS 13	6.11	2448	Determination of Phenylurea Compounds in Drinking Water by Liquid Chromatography Electrospray Ionization/Tandem Mass Spectrometry	In-House, based on EPA 532	1/22/2015	1.0
LCMS 14	6.11	2430	Determination of Perchlorate in Drinking Water by Liquid Chromatography/Electrospray Ionization Tandem Mass Spectrometry	EPA 331-pHG	12/1/2014	1.0
LCMS 15	6.11	2445	The Determination of Endothall in Environmental Matrices by Online Solid-Phase Extraction Coupled with High-Performance Liquid Chromatography/Mass Spectrometry in Tandem	In-house method	7/19/2016	4.0

SOP No.	D4 group	D4 #	Analytes	Method	Issue Date	Revision No.
LCMS No. 16	6.11	3570	The Determination of Algal toxins in Environmental Aqueous Matrices by Online Solid-Phase Extraction (SPE) Coupled with High-Performance Liquid Chromatography Mass Spectrometry in Tandem (LC-MS/MS) Analysis.		7/7/2015	1.0
LCMS No. 17	6.11	3616	Determination of Cylindrospermopsin and Anatoxin-A in drinking water by direct injection liquid chromatography/tandem mass spectrometry (LC/MS/MS).	EPA 545	7/7/2015	1.0
LCMS No. 18	6.11	3617	Determination of triazine pesticides and their degradates in drinking water by liquid chromatography electrospray ionization tandem mass spectrometry (LC/ESI-MS/MS	EPA 536	7/7/2015	1.0
LCMS No. 19	6.11	3618	Glyphosate-ampa by lc-ms-ms		7/7/2015	1.0
LCMS No. 19	6.11	3860	Determination of selected microcystins in drinking water by solid phase extraction and liquid chromatography/tandem mass spectrometry (LC/MS/MS).	EPA 544	7/6/2015	1.0
Met 01	6.01	2363	Analysis of Trace Elements by ICP Emission Spectroscopy	ICP, EPA 200.7, 6010B,	8/10/2015	23.0
Met 02	6.01	2364	Trace Metals by ICP/MS	ICP/MS, EPA 200.8, 6020A	8/14/2015	32.0
Met 04a	6.01	2365	Mercury by Cold Vapor Atomic Absorption	SW846 Method 7470, EPA 245.1, 7470A	7/13/2016	22.0
Met 19	6.01	2366	Hexavalent Chromium, Colorimetric Method	EPA 7196 A / SM 3500 CR-B /SM3500 CR -D	12/5/2015	13.0
Met 26	6.01	2367	Silica by the Molybdosilicate Method	SM 4500-SiO2C	7/13/2016	8.0
Met 27	6.01	2368	Hardness by Calculation	EPA 200.7/ SM 2340B	3/14/2015	9.0
Met 28	6.01	2369	pH / Turbidity Check for Metals	pH paper/180.1	6/4/2015	6.0
Met 30	6.01	2370	Heated Block Metals Digestion	EPA 200.7, 200.8, 6020A	11/13/2014	12.0
Met 31	6.01	2398	UCMR3 TRACE METALS ANALYSIS BY ICP/MS	EPA 200.8	10/28/2015	5.0
Met 32	6.01	2400	Arsenic Speciation Preperation	EPA 200.8	3/14/2015	2.0
Micro 01	6.08	2393	Determination of Asbestos Fibers in Water	EPA 100.2	11/3/2015	22.0
Micro 05	6.08	3012	Determination of Coliform in drinking water by the ONPG-MUG Method (Colilert)	SM 9223 B	7/1/2016	26.0
Micro 06	6.08	2353	Determination of Total and Fecal Coliforms in water, wastewater and soil by Multiple Tube Fermentation Technique	SM 9221	1/27/2015	22.0
Micro 09	6.08	2354	Determination of Fecal Streptococci and enterococci in water, wastewater and soil	SM 9230B	2/19/2015	15.0
Micro 11	6.08	2356	Heterotrophic Plate Count	SM 9215 A, B	8/4/2015	16.0
Micro 13	6.08	2714	Microscopic Particulate Analysis	EPA 910/9-92-029	1/25/2015	12.0
Micro 16	6.08	2346	Determination of Coliforms in Water by the CPRG-MUG Method / Colisure	SM 9223	5/17/2016	14.0
Micro 17	6.08	2347	Determination of Escherichia Coli in water and wastewater by Multiple Tube Fermentation Technique	SM 9221 F	7/19/2016	14.0
Micro 19	6.08	2349	Water Suitability Test	SM 9020B	7/15/2015	10.0
Micro 20	6.08	2350	Inhibitory Residues	SM 9020B	6/7/2016	12.0
Micro 21	6.08	2348	Microbiology Demonstration of Capability	N/A	7/19/2016	8.0
Micro 23	6.08	2351	Male-specific (F+) and Somatic Coliphage in water by Single Agar Layer (SAL) Procedure	EPA 1602 April 2001	7/19/2016	6.0
Micro 24	6.08	2358	pH Check of Clean Glassware Using Bromthymol Blue	SM 9020B	7/15/2015	7.0
Micro 26	6.08	2359	Determination of Coliforms in Drinking Water by the 18 Hour ONPG-MUG Method	SM 9223B	7/13/2016	9.0
Micro 27	6.08	2360	Microcystin by ELISA analysis	USEPA Region 9 SOP	7/19/2016	6.0
Micro 28	6.08	2361	Determination of Yeast and Mold in Water	Standard Methods, 21st Ed. (2005) Section 9610 D	8/14/2015	3.0
Micro 29	6.08	2352	Algae Enumeration and Identification	SM 10200 F, SM 10900 C	11/4/2015	3.0
Micro 30	6.08	2362	Cylindrospermopsin by ELISA Analysis	ELISA Analysis	1/23/2015	1.0
Micro 31	6.08	2438	Detection of Actinomycetes in water.		1/22/2015	1.0
Micro 32	6.08	2439	Heterotrophic Plate Count - MF	Coca Cola, SM 9215A,D	7/3/2016	3.0
Micro 33	6.08	2461	DETERMINATION OF PSEUDOMONAS AERUGINOSA IN DRINKING WATER BY THE PSEUDALERT METHOD	IDEXX Pseudalert/ IDEXX Quanti-Tray/2000	7/15/2015	2.0
Micro 34	6.08	3404	Cryptosporidium and Giardia in Water by Filtration/IMS/FA	EPA 1623	2/3/2015	1.0
Micro 35	6.08	3134	Enterolert: DETERMINATION OF ENTEROCOCCUS IN WATER BY ENTEROLERT USING QUANTI-TRAY/2000 TECHNIQUE	Idexx	7/13/2016	2.0
Micro 36	6.08	3970	Determination of Legionella in Water by culture technique.	CDC	7/15/2015	2.0
Micro 36	6.08	3970	Determination of Legionella in Water by CDC Culture Technique	CDC	5/5/2015	2.0
Micro Colton 1	6.10	2499	Determination of Coliform in drinking water by the ONPG-MUG Method	SM 9223 B	7/1/2016	7.0
Micro Colton 2	6.10	2500	Determination of Coliforms in Drinking Water by the 18-hr ONPG-MUG Method	SM 9223B	5/17/2016	7.0
Micro Colton 3	6.1	2502	Determination of Coliforms in Water by the CPRG-MUG Method / Colisure	SM 9223	5/17/2016	6.0

SOP No.	D4 group	D4 #	Analytes	Method	Issue Date	Revision No.
Micro Colton 4	6.10	2503	Determination of Coliform in water by Multiple Tube Fermentation Technique	SM 9221	7/1/2016	6.0
Micro Colton 5	6.10	2504	Heterotrophic plate count	SM 9215 A, B	1/25/2015	5.0
	6.10	8041	AOC	Weinrich 2009		1.0
Micro Folsom 1	6.09	2505	Determination of Coliforms in drinking water by the ONPG-MUG Technique	SM 9223 B	7/13/2016	3
Micro Folsom 2	6.09	2506	Determination of Coliforms in Drinking Water by the 18-hr ONPG-MUG Method	SM 9223B	7/13/2016	3
Micro Folsom 3	6.09	2507	Determination of Coliforms in Water by the CPRG-MUG Method (Colisure)	SM 9223	7/13/2016	2
Micro Folsom 4	6.09	2508	Heterotrophic plate count using Enzyme Substrate Method	IDEXX	7/13/2016	2
Micro Fresno 1	6.13	3573	9223B: Colilert - DETERMINATION OF COLIFORMS IN DRINKING WATER BY THE ONPG-MUG TECHNIQUE	SM 9223B	6/16/2016	2.0
Micro Fresno 2	6.13	3574	9223B: Colilert18 - DETERMINATION OF COLIFORMS IN DRINKING WATER BY THE 18 HOUR ONPG-MUG TECHNIQUE	SM 9223B	4/7/2015	1.0
Micro Fresno 3	6.13	3575	9223:Colisure - DETERMINATION OF COLIFORMS IN WATER BY THE CPRG-MUG TECHNIQUE	SM 9223	7/1/2016	2.0
Micro Fresno 4	6.13	3576	9215E: Simplate - Heterotrophic Plate Count (HPC) Using Enzyme Substrate Method	IDEXX 2000	4/7/2015	1.0
Non Method 31	5.04	2524	Subcontracting of Environmental Tests	N/A	11/11/2014	2.0
Non Method 01	5.02	2600	Sample Receiving and Log In	N/A	10/22/2015	26.0
Non Method 02	5.02	2599	Chain of Custody	N/A	11/11/2015	13.0
Non Method 04	4.07	2877	Hazardous Waste Management and Sample Disposal Procedures	N/A	11/17/2015	11.0
Non Method 05	3.02	2497	Laboratory Ethics/Data Integrity Plan	N/A	10/21/2015	13.0
Non Method 06	3.02	2436	Environmental Monitoring for Microbiological Contaminants	N/A	8/7/2015	10.0
Non Method 07	3.02	2401	Standards and Reagent Preparation, Documentation, and Labeling	N/A	11/5/2015	12.0
Non Method 11	4.03.01	2510	Balance Maintenance	N/A	9/25/2015	10.0
Non Method 08	3.02	2509	Compositing and Subsampling in the Laboratory	N/A	9/19/2015	8.0
Non Method 13	3.02	2415	Retention of Significant figures	N/A	9/18/2015	9.0
Non Method 15	4.03.03	2513	Use of Class A glassware	N/A	9/10/2015	10.0
Non Method 14	4.05	2512	Instrument Maintenance	N/A	9/18/2015	10.0
Non Method 19	4.03.02	2515	Temperature Monitoring and Thermometer Calibration	N/A	11/17/2015	7.0
Non Method 20	5.02.	2516	Handling and Disposal of Foreign Soil Samples	N/A	10/21/2015	7.0
Non Method 16	3.02	2514	Glassware Cleaning	N/A	11/20/2015	9.0
Non Method 22	3.02	2338	States Certification & Performance Tests Requirements	N/A	10/14/2015	7.0
Non Method 23	4.02	2517	Calibration	N/A	9/18/2015	2.0
Non Method 24	5.02	2518	Handling of Controlled Substances	N/A	10/14/2015	4.0
Non Method 26	3.02	2519	Contracts Review	N/A	12/5/2015	2.0
Non Method 27	3.02	2520	Purchasing Supplies, Equipment, and Services	N/A	10/20/2015	3.0
Non Method 29	4.02	2521	Estimation of Analytical Uncertainty	N/A	12/30/2015	2.0
Non Method 30	3.02	2523	Control of Records	N/A	11/3/2015	3.0
Non Method 32	3.02	2525	Influence, Confidentiality, Independence	NA	9/14/2015	2.0
Non Method 33	5.07	2526	Field Sampling and Measurements	NA	4/11/2016	2.0
Non Method 34	5.02	2601	Standardized Procedure for pH, Free Chlorine, and Total Chlorine Checks for UCMR3 Samples	N/A	12/31/2015	6.0
NonMethod 28	3.02	3001	Non-Conforming Work and Corrective Action	N/A	12/30/2015	3.0
Rad 01	6.07	2449	CO-PRECIPITATION METHOD for GROSS α	SM7110C	7/6/2015	8.0
Rad 02	6.07	2372	Radon by Liquid Scintillation Counter	SM 7500-Rn	8/10/2015	12.0
Rad 06	6.07	2373	Gross alpha and beta Radioactivity	EPA 900.0	8/10/2015	21.0
Rad 09	6.07	2374	Ra-226 and Ra-228 by Gamma-Ray Spectrometry Using HPGE Detector	GA Tech	7/12/2016	9.0
Wet Chem 01	6.02	2458	Cyanide Analysis by Ion Selective Electrode (ISE)	EPA 9012B/ SM 4500-CN F,G	7/6/2015	16.0

SOP No.	D4 group	D4 #	Analytes	Method	Issue Date	Revision No.
Wet Chem 02	6.02	2459	Fluoride by Ion Selective Electrode	EPA 9214/ SM 4500-F B,C	8/4/2015	15.0
Wet Chem 03	6.02	2462	Alkalinity	SM 2320B	4/4/2016	15.0
Wet Chem 04	6.02	2463	Total Dissolved Solids (TDS) in water	SM 2540C	8/14/2015	19.0
Wet Chem 05	6.02	2464	Total Suspended Solids (TSS) in water	SM 2540D	8/14/2015	10.0
Wet Chem 06	6.02	2465	Turbidity - Nephelometric	EPA 180.1/ SM 2130B	4/4/2016	12.0
Wet Chem 07	6.02	2466	Total Solids (TS) in Aqueous Sample	SM 2540B	4/4/2016	9.0
Wet Chem 09	6.02	2467	Settleable Solids	SM 2540F	7/12/2016	9.0
Wet Chem 11	6.02	2468	Color	SM 2120 B	4/6/2015	12.0
Wet Chem 12	6.02	2469	Conductivity (EC)	EPA 120.1, 9050A/ SM 2510B	8/31/2015	13.0
Wet Chem 13	6.02	2470	Cyanide (Reflux-Distillation) Midi Distillation	EPA 335.4	8/31/2015	13.0
Wet Chem 14	6.02	2471	Orthophosphate, Total, Suspended and Dissolved	EPA 365.1/ SM 4500-P F	7/13/2016	10.0
Wet Chem 15	6.02	2472	Odor	SM 2150	3/14/2015	12.0
Wet Chem 17	6.02	2473	Biochemical Oxygen Demand	SM 5210B	6/3/2016	18.0
Wet Chem 19	6.02	2474	Phenolics and Phenolics-Low	EPA 420.1 / 420.4	12/1/2014	15.0
Wet Chem 21	6.02	2475	Determination of Nitrate / Nitrite by Flow Injection Analysis	EPA 353.2	12/2/2014	13.0
Wet Chem 22	6.02	2476	Total Kjedahl Nitrogen by Colorimetric Analysis follwing Semi-Automated Digestion	EPA 351.2	12/2/2014	13.0
Wet Chem 26	6.02	2479	Total Volatile Solids/Volatile Suspended Solids in Liquid	EPA 160.4	4/4/2016	11.0
Wet Chem 27	6.02	2480	Ammonia as Nitrogen by Rapid Flow Analyzer (RFA)	EPA 350.1/ SM 4500-NH3 D,H	8/31/2015	14.0
Wet Chem 28	6.02	2481	pH Value	EPA 9040B, 150.1/ SM 4500-H+B	8/4/2015	9.0
Wet Chem 31	6.02	2482	Surfactants, Anionic (MBAS)	SM 5540 C	1/1/2016	11.0
Wet Chem 32	6.02	2483	Total Organic Carbon and Dissolved Organic Carbon by UV/ Persulfate Oxidation	EPA 9060A/ SM 5310C	12/1/2014	14.0
Wet Chem 34	6.02	2484	Analytical method for Ultraviolet Absorption of Organic constituents at 254 nm	SM 5910B	1/25/2015	7.0
Wet Chem 35	6.02	2485	Sulfide Determination (Methylene Blue)	EPA 9030B, 9034/ SM 4500-S2-D	1/25/2015	9.0
Wet Chem 36	6.02	2486	Chemical Oxygen Demand (COD)	EPA 410.4/ SM 5220D	1/1/2016	13.0
Wet Chem 37	6.02	2487	Determination of Total Cyanide by Semi-Automated Colorimetry	EPA 335.4	11/28/2014	14.0
Wet Chem 38	6.02	2488	Determination of Total Phosphate by Flow Injection Analysis Colorimetry	EPA 365.1/ SM 4500-PF	12/30/2015	10.0
Wet Chem 39	6.02	2489	Langelier Index by Calculation	SM 2330B	2/12/2015	6.0
Wet Chem 42	6.02	2490	Dissolved Organic Halogen: Adsorption-Pyrolysis-Titrimetric Method	SM 5320B	8/14/2015	15.0
Wet Chem 43	6.02	2491	Dissolved Oxygen, Membrane Electrode	SM 4500 OG	7/11/2016	6.0
Wet Chem 53	6.02	2492	A Simplified and Rapid Method for Biodegradable Dissolved Organic Carbon Measurement (BDOC)	In-house	7/6/2015	5.0
Wet Chem 57	6.02	2493	Phenolics- LowLevel with Inline Distillation	EPA 420.4 MOD	4/10/2015	5.0
Wet Chem 58	6.02	2494	SULFITE Determination	SM 4500 SO3B	7/3/2016	2.0
Wet Chem 59 /GC 27	6.02	2404	Free and Total Chlorine Analysis and Chloramine Calculation	SM 4500-Cl-G	4/4/2016	12.0
Wet Chem 60 /GC 33	6.02	2326	Chlorine Dioxide Analysis	SM 4500-CLO2-D	4/4/2016	6.0
Wet Chem 61	6.02	3569	Cyanuric Acid	Hach	7/12/2016	1.0
	6.04	6317	UCMR4 525.3: Determination of Semivolatile Organic Compounds in Drinking Water by Capillary Column Gas Chromatography/Mass Spectrometry	EPA 525.3	New	
	6.04	6632	UCMR4 530: Determination of Select Semivolatile Organic Chemicals in Drinking Water by Gas Chromatography Mass Spectrometry	EPA 530	New	
	6.04	6639	UCMR4 541: Determination of 1-Butanol, 2-Methoxyethanol, and 2-Propen-1-ol in Drinking Water by Gas Chromatography-Mass Spectrometry	EPA 541	New	
	6.08	7048	UCMR4 EPA ELISA Method	ELISA		1.0
	6.11	6634	UCMR4 EPA 544: Determination of Microcystins and Nodularin in Drinking Water by Liquid Chromatography-Tandem Mass Spectroscopy (LC-MS-MS)	EPA 544	New	
	6.11	6636	UCMR4 EPA 545: Determination of Cylindrospermopsin and Anatoxin-A in Drinking Water by Liquid Chromatography Electrospray Ionization Tandem Mass Spectrometry (LC-ESI-MS-MS)	EPA 545	New	
	6.12	6631	UCMR 4 EPA 525.3: Determination of Semivolatile Organic Compounds in Drinking Water by Solid Phase Extraction	EPA 525.3	New	
	6.12	6633	UCMR 4 EPA 530: Determination of Select Semivolatile Organic Chemicals in Drinking Water by Solid Phase Extraction	EPA 530	New	
	6.12	6635	UCMR4 EPA 544: Determination of Microcystins and Nodularin in Drinking Water by Solid Phase Extraction	EPA 544	New	
	6.12	6640	UCMR4 EPA 541: Determination of 1-Butanol, 2-Methoxyethanol, and 2-Propen-1-ol in Drinking Water by Solid Phase Extraction	EPA 541	New	

WORK PLAN

ASM Assignment

Ms. Debbie Frank served as the City's ASM during our previous contract (2000-2009). In the span of nine years working for the City we did not change ASM assignment a single time. Today Ms. Frank still retains much of the knowledge of your staff, your preferences for communication & reporting and your system infrastructure & water quality concerns. Debbie works in our Monrovia laboratory and has direct physical access to our Lab Director, Supervisors, QA Officer and IT Manager which is critical factor in managing your project. She will approve all logged orders, review all final results and sign off on all reports, EDDs and invoices.

Because of the size and intensity of your project requirements and to create redundancy of contacts for you, we are also assigning Ms. Leisl Cole (our Colton Service Center Manager) to provide additional ASM support. Leisl manages our Colton Service Center and Microbiology staff there. She will be primarily responsible for fulfilling all kit order requests, coordinating front end logistics (deliveries, pick-ups, drop offs), facilitating bacteriology analysis, reporting and follow up sampling and supplementing Debbie as needed.

By allocating staff assignments in this fashion, we ensure the both Water and Reclamation staff are afforded the maximum amount of attention and availability needed to ensure our accessibility and responsiveness to your routine and specialized project needs. Both Debbie and Leisl:

- Have a thorough understanding of your monitoring and reporting requirements
- Are aware of pending EPA and DDW regulations
- Have successfully overseen compliance projects for several CA agencies
- Have experience with Write-On and EQuIS deliverables

Sample Kits

Sample containers for all analyses except certain microbiological methods are purchased in batches, pre-cleaned by each vendor according to EPA guidelines. Every batch is associated with a lot number, identified on each container and tracked to trace any contamination that might originate with the vendor. All Volatiles and Metals lots are tested additionally at Eurofins to verify the absence of contamination. When required by the method, containers are preserved by according to CFR 136-149 and the Manual for the Certification of Laboratories (5th edition). Only reagent grade (or HPLC-grade) water and preservatives are used. Pre-labeled containers are included with ice packs, packaging material, customized custody form and kit inventory for every entry point, plant effluent and set of source and/or distribution system sample sites. Foam inserts and color coded caps are used to provide a user-friendly mechanism to complete these complex sampling requirements. The pre-labeling of containers eliminates unnecessary time spent in the field documenting sample site information. Sample Kits can be delivered all at once each month, on a weekly basis or as requested by the customer.

Sample Pick Up or Drop Off

Eurofins operates from 8:00am-5:00pm Monday through Friday. Our clients are water agencies responsible for public health. Therefore, we maintain staff availability for courier, login and analytical services on weekends, holidays and after hours. We presently employ 4 full time couriers available to pick-up samples in San Bernardino any day of the week at any time of day or even multiple times within a day if needed to meet operational or short holding time requirements. Eurofins is less than 3 miles away. Because of our close proximity to the City Yard and RIX Plant, we can mobilize rapidly or the City may also drop off samples at their convenience...

Sample Receipt

Eurofins inspects all samples upon receipt. We contact our clients immediately whenever samples are received with breakage, leakage, inverted septa or air bubbles (for Volatile samples), incorrect containers, wrong preservatives, missing container labels, incomplete paperwork or excessive temperature. Each cooler temperature is measured and recorded on the sample custody form. Tracking numbers are then assigned to each sample and scheduled for analysis. Analytical Departments are notified to retrieve any samples with short holding times or samples requiring rush turnaround times so processing can commence immediately. Remaining samples are stored at 4 degrees C in walk-in refrigerators. Temperatures in all cold storage areas are measured twice each day to ensure required temperature is maintained (TNI standard 5.5.3). Volatiles samples are segregated in separate refrigerators to prevent cross-contamination.

Sample Custody

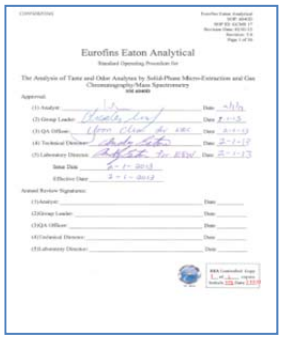
Level I chain of custody is adhered to while your samples are in our possession. Eurofins is a secured building, with pass key access and locked refrigerators. Custody documentation is maintained on the Custody Form, on Run Logs and/or Bar Codes to indicate where the samples are located at all times. Samples are disposed after 30 days when holding times expire or according to other requirements as requested by our clients.

Analytical Methods

The analytical methods performed at Eurofins are based primarily on methods specified by various federal, state and local regulations. If more stringent standards or requirements are included in the mandated test method or by regulation, the laboratory guidance is that all SOPs

meet such requirements even if the requirement is more stringent than the corresponding TNI standard. If it is unclear which requirements are more stringent, the laboratory follows the standard from the method or regulation. All analysts must follow the QC protocols and essential QC measures specified by the laboratory's method manual (SOPs). The majority of methods come from the U.S. Environmental Protection Agency. Other common methods are from *Standard Methods for the Examination of Water and Wastewater*, approved regulatory editions.

All methods and method modifications are documented fully in individual SOPs. Methods are modified if, and only if, the original method goals for precision and accuracy have been met or exceeded. Modifications are usually implemented due to available resources or to expedite the process without sacrificing quality. All Methods are validated prior to analyzing client samples. The validation includes a Method Detection Limit (MDL) study following current 40CFR 141 protocols, an analyst precision and accuracy study and subsequent review and approval by the Group Manager, Lab Director and Quality Assurance Officer. Every Eurofins analyst follows the QC protocols and essential QC measures specified by the laboratory SOPs


Eurofins Eaton Analytical

Standard Operating Procedure for

The Analysis of Taste and Odor Analytes by Solid-Phase Micro-Extraction and Gas Chromatography/Mass Spectrometry

SM 6040D

Approval:

(1) Analyst: _____ Date: _____

(2) Group Leader: _____ Date: _____

(3) QA Officer: _____ Date: _____

(4) Technical Director: _____ Date: _____

(5) Laboratory Director: _____ Date: _____

Initial Date: _____

Effective Date: _____

Annual Review Signatures:

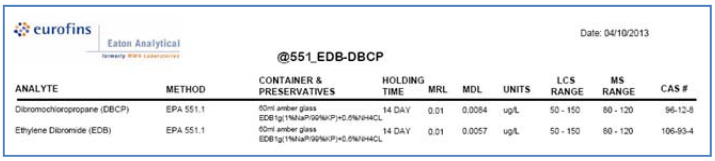
(1) Analyst: _____ Date: _____

(2) Group Leader: _____ Date: _____

(3) QA Officer: _____ Date: _____

(4) Technical Director: _____ Date: _____

(5) Laboratory Director: _____ Date: _____


eurofins Eaton Analytical

Date: 04/10/2013

@551_EDB-DBCP

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Dibromochloropropane (DBCP)	EPA 551.1	60ml amber glass EDB1g(1%NaPi99%KP)+0.5%NH4CL	14 DAY	0.01	0.0084	ug/L	50 - 150	60 - 120	96-12-8
Ethylene Dibromide (EDB)	EPA 551.1	60ml amber glass EDB1g(1%NaPi99%KP)+0.5%NH4CL	14 DAY	0.01	0.0057	ug/L	50 - 150	60 - 120	106-93-4

It is the policy of Eurofins to be conservative when reporting not-detect on a sample. Consequently, we have implemented minimum reporting levels (MRLs) that must be at or above the lowest standard associated with that analytical run rather than reporting to the MDL. This ensures that all data reported as "detected" will have some degree of analytical precision associated with them. An MRL check sample is normally included with every run to verify sensitivity. Semi-quantitative data below the MRL are available on a client-specific data quality objectives (DQO) basis.

Preliminary Reporting

Our laboratory turnaround time goal is reporting of results within 10 working days of receipt. However, because of your diverse projects and associated operational and regulatory requirements, we have established the following more stringent turnaround time standards:

- Bacteriological Positives = 24 hours
- Treatment Plant Volatiles, Metals, Nitrate, Perchlorate = 2-4 days
- Compliance samples received in the last week of the month = 5 days

Our policy is twofold. First, we implement data capture utilities (DCUs) to transfer data directly from instrument to LIMS and forward these “preliminary” results for certain critical constituents as soon as they are available. Second, we employ a rigorous data reduction/validation process to present defensible values on final reports with qualifiers (as needed) within the contractual turnaround time we’re committing to.

Project	Folder	Order #	Client ID	Analyte	Sample ID	Date	Result	Units	MCL
MONTHLY	603448	201608020592	BURBANK-BOU	Nitrate as Nitrogen by IC	1910179-004 VO-8	8/2/2016	5.1	mg/L	10
MONTHLY	603448	201608020592	BURBANK-BOU	Nitrate as NO3 (calc)	1910179-004 VO-8	8/2/2016	23	mg/L	45
MONTHLY	603448	201608020590	BURBANK-BOU	Nitrate as Nitrogen by IC	1910179-028 VO-6	8/2/2016	7.4	mg/L	10
MONTHLY	603448	201608020590	BURBANK-BOU	Nitrate as NO3 (calc)	1910179-028 VO-6	8/2/2016	33	mg/L	45
MONTHLY	603448	201608020591	BURBANK-BOU	Nitrate as Nitrogen by IC	1910179-029 VO-7	8/2/2016	6.4	mg/L	10
MONTHLY	603448	201608020591	BURBANK-BOU	Nitrate as NO3 (calc)	1910179-029 VO-7	8/2/2016	28	mg/L	45
MONTHLY	603193	201608010430	BURBANK-BOU	1,2,3-Trichloropropane	1910179-040 AD-750A Lower (50%)	8/1/2016	0.0145	ug/L	NA
MONTHLY	603189	201608010417	BURBANK-BOU	1,2,3-Trichloropropane	1910179-042 AD-730B Lower (50%)	8/1/2016	0.0114	ug/L	NA
MONTHLY	603189	201608010419	BURBANK-BOU	1,2,3-Trichloropropane	1910179-044 AD-740B Lower (50%)	8/1/2016	0.0102	ug/L	NA
WEEKLY	603197	201608010434	BURBANK-BOU	1,1-Dichloroethylene	1910179-031 Combined Tower Influent	8/1/2016	1.7	ug/L	7
WEEKLY	603197	201608010434	BURBANK-BOU	Carbon Tetrachloride	1910179-031 Combined Tower Influent	8/1/2016	0.88	ug/L	5
WEEKLY	602074	201607250158	BURBANK-BOU	Tetrachloroethylene (PCE)	1910179-031 Combined Tower Influent	7/25/2016	96	ug/L	5
WEEKLY	603197	201608010434	BURBANK-BOU	Trichloroethylene (TCE)	1910179-031 Combined Tower Influent	8/1/2016	47	ug/L	5
WEEKLY	603182	201608010389	BURBANK-BOU	Nitrate as Nitrogen by IC	1910179-047 Plant Effluent	8/1/2016	7.5	mg/L	10
WEEKLY	603182	201608010389	BURBANK-BOU	Nitrate as NO3 (calc)	1910179-047 Plant Effluent	8/1/2016	33	mg/L	45

Report Deliverables

Final report deliverables include all of the following:

- Signed Cover Page with Project Name and Title referenced
- Sample Acknowledgement
- Chain of Custody
- Hits Report Summary with comparison to regulatory limits
- Sample Results with collection, receipt and analysis dates referenced
- Report Comments/Narrative
- QC Summary
- Batch QC Report (lab control spikes, matrix spikes, MRL check, method blank, surrogates)
- State Forms (for Title 22 drinking water)
- EDD (GWIS or EPA Region 9 EQuIS format)

GWIS and EPA Deliverables

Each GWIS deliverable will be data checked to confirm completeness and correctness prior to submission to the City. Submissions will include both pipe-delimited text files and comma delimited csv files.

Each EQuIS deliverable will be data checked using EDP to confirm completeness and correctness prior to submission with the report PDF to Stantec. EQuIS submissions will include the required 4-file format. A Tier 3 data package on 1 batch per quarter will be submitted each quarter. Eurofins control charts for Volatiles (LCS, MS, Blank) will be submitted subsequent to the May and November sampling periods.

Invoicing & Payment Tracking

Invoices include each of the following data elements:

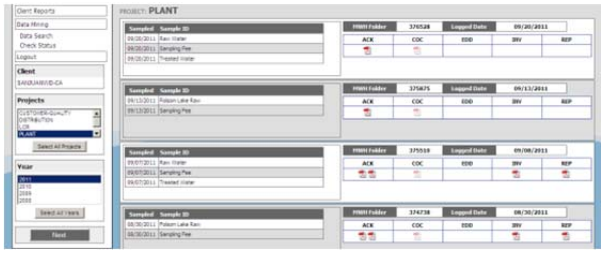
- Project and Sample Group reference
- Sample Identification
- Test(s) Completed
- Unit and Extended Cost
- Total Cost
- Contract or Purchase Order reference

Invoices are usually released shortly after final reports. However, for customers whose analytical programs result in a significant number of groups/reports, Eurofins can provide consolidated billing on a weekly or monthly frequency. This feature involves our production of summary invoices for a specific date range, thus affording our clients a mechanism for more centralized management of analytical bills according to a common issued/due date for payment. To further support our client's payment management effort, Eurofins can also provide monthly aging summaries. These summary reports detail all outstanding invoices organized according to project, issue date, amount, aging, etc., providing yet another mechanism to assist you with organizing our invoices and your payment schedules.

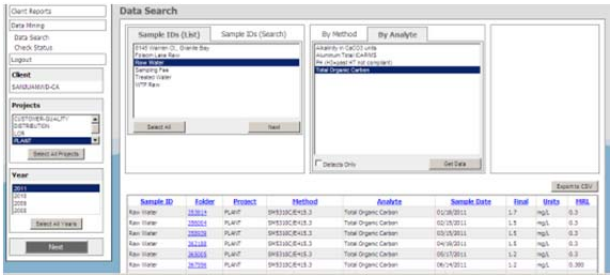
Electronic Data Management

Eurofins maintains a secure, online account for your access all project-related documents. Any designated representative may use project-specific or "master" ID and password to access our web site where PDF versions of the project documents can be accessed.

All report documents are delivered electronically via PDF e-mail link. Any one of a number of your or 3rd party staff may be designated to receive COCs, acknowledgements, reports and/or invoices for specific projects. Our LIMS system organizes your data by project, allowing for **project-specific reporting & billing**. This also facilitates data mining for project-specific analyze histories or regulatory reports.



Eurofins' LIMS provides real time data queries by project, sample location, analytical parameter and/or data range. This feature is useful for **summary data reporting** (i.e. CCR) and source/system trending. Project status can also be tracked in real time to determine the progress of logins, analysis and reporting.



eurofins | Eaton Analytical

Instrumentation Inventory

	Tests	Vendor	Model	Year Acquired	Serial #
Microbiology					
	General Microbiology	Hotpack	Incubator- 305540	Unknown	61928
	General Microbiology	Binder	Incubator- BD 240-UL	Unknown	11-12786
	General Microbiology	Precision	Incubator- 6M	Unknown	9310-005
	General Microbiology	VWR	Incubator- 1555	Unknown	600897
	General Microbiology	Hotpack	Incubator- 305540	Unknown	61927
	General Microbiology	Binder	Incubator- BD 240-UL	Unknown	11-12790
	General Microbiology	Binder	Incubator- BD 240-UL	Unknown	11-12791
	General Microbiology	Norlake	Incubator	2014	730
	General Microbiology	Barnstead	Incubator- DB17615	Unknown	821050995690
	General Microbiology	Heratherm Incubator	Incubator- 51028066	2015	41172542
	General Microbiology	Precision-Thermo	Waterbath- 2860	Unknown	202565
	General Microbiology	VWR	Waterbath- 1285pc	Unknown	1000794
	General Microbiology	VWR	Waterbath- 1204	Unknown	1100699
	General Microbiology	Precision	Waterbath- Cat. No. 51221033	Unknown	603102044
	General Microbiology	Precision	Waterbath- 2862	Unknown	113027-681
	Algae Analysis	Zeiss	Microscope- 473012-9902	Unknown	NA
	Crypto/Giardia	Zeiss	Axio Scope	2014	3323000419
	Algae Analysis	Fluid Imaging Tech	Flowcam	2012	568
	AOC	Spectroline	Flourescence Analysis EA-160	2014	1554913
	Crypto/Giardia	Beckman Coulter	Avanti JXN-26	2015	8436001
	Crypto/Giardia	Pall	Multi Wrist Shaker 4821A	2015	121413
	Asbestos	Hitachi	TEM 600AB	2000	542-50-03
Metals	Metals by ICPMS	Agilent	7500CS	2011	JP93200243
	Metals by ICPMS	Cetac	ASX-500 Model 510 Autosampler	2011	10047ASX
	Metals by ICPMS	Nelsab	Merlin M75 Chiller	2011	107043069
	Metals by ICPMS	Agilent	7500CE	2007	JP51201349
	Metals by ICPMS	Agilent	7700X	2014	JP13292550
	Metals by ICPMS	Perkin-Elmer	Elan 9000 DRC II	2003	Q1280212
	Metals by ICPMS	Perkin-Elmer	ELAN 6000	1999	3929707
	Metals Speciation	ESI/SeaFast 3	Autosampler SC2DX	2009	X2DX-HS-TDP-16-100801
	Metals Speciation	ESI/SeaFast 3	Nebulizer PC3-F	2009	PC3F-100701
	Iodide/Iodate	ESI/SeaFast 3	Autosampler SC2DX	2009	X2DX-HS-TSP-16-100711
	Iodide/Iodate	ESI/SeaFast 3	Nebulizer PC3-F	2009	PC3F-100505
	Metals by ICP	Optima	4300 DV	2003	077N2121801
	Mercury	Perkin-Elmer	FIMS400	2000	4605
	Mercury Prep	Thermo	Lindberg/blue WB1130C-1		R12R-507226-RR
	Metals Prep	Environmental Express	Hot Block	2002	1763CEC1134
	Metals Prep	Environmental Express	Hot Block	2005	3703CEC1784
	Metals Prep	Environmental Express	Hot Block	2012	6974CECW3257
	Metals Prep	Environmental Express	Hot Block	2014	9150CDCW4008

	Tests	Vendor	Model	Year Acquired	Serial #
Rad					
	Gross Alpha/Beta & Radium 228	Protean 8 channel	MPC9604	1998	83023
	Gross Alpha/Beta & Radium 228	Gamma Products Inc	T7500	2006	
	Radon	Beckman	6500	1993	7067177
	Radium 228	Beckman Coulter	Allegra 6	2003	ALS02M09
	Gross Alpha/Beta	Linberg Blue	HP53025C	2001	W01K-496436-WK
	Radium 226 and Radium 228	Canberra, Inc	Gamma Spec	2010	9771
	Radium 226 and Radium 228	Canberra, Inc	Gamma Spec	2013	10466
	Radium 226 and Radium 228	Canberra, Inc	Gamma Spec	2015	10808
	Gross Alpha/Beta	Canberra, Inc	LB4200	2015	13000216,-217,-218,219
Ion Chromotography					
	Fluoride	Metrohm	881 Compact IC	2009	3170
	Hexavalent Chromium	Metrohm	887 UV/VIS	2010	3146
	Hexavalent Chromium	Metrohm	818 External Pump	2009	10156
	All tests	Metrohm	858 Autosampler	2009	2797
	Anions	Dionex (IC4)	CD20	1998	98080693
	Anions	Dionex (IC4)	GP50	2004	0402006
	Anions	Dionex (IC4)	LC20	1998	98070159
	Anions	Dionex (IC6)	IP25	1998	98120234
	Anions	Dionex (IC6)	ED40	2000	96020230
	Anions	Dionex (IC6)	LC20	2000	00110243
	Anions	Dionex (IC8)	ICS2000	2005	03080229
	Perchlorate	Dionex(IC9/10)	ICS3000	2006	07101026
	Perchlorate	Dionex(IC9/10)	VWD3400	2008	8004187
	Perchlorate	Dionex(IC9/10)	GP40	1998	98070271
	Perchlorate, Anions,EDTA/NTA	Dionex (IC 13/14)	ICS3000	2006	06030479
	Perchlorate	Dionex (IC 13/14)	VWD3000	2006	8022929
	Perchlorate	Dionex (IC 13/14)	IP25	2000	00120038
	Hexavalent Chromium & EDTA/NTA	Dionex (IC11/12)	ICS3000	2007	07050797
	Hexavalent Chromium	Dionex (IC11/12)	VWD3400	2010	8074345
	Hexavalent Chromium	Dionex (IC11/12)	IP25	2000	00120237
	Perchlorate	Dionex/Thermo (IC15)	ICS1500	2012	12090982
	Chlorate	Dionex/Thermo (IC16)	ICS1500	2012	12090984

	Tests	Vendor	Model	Year Acquired	Serial #
Inorganics					
	Cyanide, Nitrate	Seal	AQ2	2005	090497
	pH, Conductivity	Mettler	Multi-7 Meter	2007	1228045058
	Cyanide, Phenol, Ammonia	Lachat	Quickchem 8000	1999	A83000-2064
	TKN, T-P	Lachat	Quickchem 8000	1992	A8300-1411
	EC, pH, Alk	Metrohm	855	2011	03263
	Flouride	Metrohm	855	2011	03312
	Turbidity	HACH	2100AN	2004	040300006425
	Phenol, Cyanide	Reliance Glass	MIDI-STIL	2000	
	COD	HACH	16500-10	1996	991000019578, 910404628
	TOX	COSA/Xantaur	TOX-100	2007	A7M-42726
	TOC, DOC	GE Analytical	M5310C	2015	1506-0861
	TOC, DOC	GE Analytical	5310C	2005	1210-6054
	UV254	HACH	DR5000	2008	1141523
	pH/ISE, Fluoride, CNDW	Mettler	Muli-7 Meter		1225267116
	COD, R-SIO2, Cr+6, etc.	HACH	DR6000	2014	1557508
	TKN	Lachat	BD-46	1999	1800-712
	BOD, CBOD, DO	YSI	YSI-5000	2010	10A101086
	MBAS,Orthophos, Sulfide	HACH	DR2010	1999	99050001332
	Phenolics Low Level	OI Analytical (Hewey)	390 Autosampler	2011	021102A130
	Phenolics Low Level	OI Analytical (Hewey)	FS3100	2011	114831572
	Phenolics Low Level	OI Analytical (Hewey)	A515000	2011	114815572
	Cyanide	OI Aanalytical (Dewey)	390 Autosampler	2014	101331A520
	Cyanide	OI Aanalytical (Dewey)	FS3100	2014	446833249
	Cyanide	OI Aanalytical (Dewey)	3212OIS	2014	434814884
	Ammonia, TKN	OI Analytical (Louie)	390 Autosampler	2014	101331A520
	Ammonia, TKN	OI Analytical (Louie)	FS3100	2014	438831373
	Cyanide/Phenol/Ammonia	Carone	2050-1	1998	03301120501288
	TOX	Analytik Jena	APU2	2013	111/M
	Free chlorine/chlorine dioxide	Palintest	Chlordiox Plus	2015	60210150009
	Conductance	Orion	101	1990	127
GC Systems					
	HANs/HKs	Varian	3800	2001	3800-08107
	Pesticides/PCBs	Varian	3800	2002	3800-08827
	Haloacetic Acids	Varian	3800	2003	US10306042
	Haloacetic Acids	Agilent	3800	2003	US10315085
	Pesticides/PCBs	Agilent	3800	2003	US10315084
	Herbicides	Agilent	3800	2004	3800-11203
	EDB/DBCP	Agilent	6890N	2005	US10440020
	Haloacetic Acids	Agilent	6890N	2005	US10512068
	Haloacetic Acids	Agilent	6890N	2005	CN10518044
	EDB/DBCP	Agilent	6890N	2005	CN10505035
	EDB/DBCP/TCP	Agilent	3800	2006	3800-12789
	Herbicides	Varian	6890N	2007	CN10706031
	EDB/DBCP	Agilent	6890N	2007	CN10706032
	Haloacetic Acids	Agilent	6890N	2007	CN10706030
	Herbicides	Agilent	7890B	2016	CN16103131

	Tests	Vendor	Model	Year Acquired	Serial #
GCMS Systems					
	Volatiles	Agilent	6890/5973	2003	US33246003
	Volatiles	Agilent	5973/6890	2005	US4647377
	Volatiles	Agilent	5973/6890	2005	US44647375
	Nitrosamines, Endothall	Varian	CP 3800/4000	2009	4000-0488
	Semivolatiles, Phenols, PBDEs	Agilent	6890N	2005	CN10416008
	Semivolatiles, Phenols, PBDEs	Agilent	5973 inert	2005	US40610242
	Endothall	Agilent	6890N	2006	CN10534101
		Agilent	5975N	2006	US52420838
	Semivolatiles	Agilent	6890N	2005	CN10517080
		Agilent	5973 inert	2005	US44610770
	Semivolatiles, PBDEs	Agilent	6890N	2003	CN10331006
		Agilent	5973N	2003	US30945838
	Nitrosamines	Varian	CP-3800	2006	3800-12765
	Nitrosamines	Varian	4000CIMSM	2006	4000-00291
	Volatiles	Agilent	5975	2007	US65115374
		Agilent	6850	2010	CN10646018
	Volatiles	Agilent	7890B	2014	CN14093023
		Agilent	5977A	2014	US1409J204
	Volatiles	Agilent	7890B	2014	CN14233072
		Agilent	5977A	2014	US1421J204
	MIB/Geosmin	Agilent	7890B	2013	CN13193019
		Agilent	240 Ion trap	2013	US1322E001
	Dioxin	Agilent	7890A	2010	CN10111041
		Waters	Quattro Micro Triple Quad	2010	RAB354
	Dioxin	Agilent	7890A	2010	CN1015111
		Waters	Quattro Micro Triple Quad	2010	RAB355
	1, 2, 3 TCP	Agilent	5975	2011	US11179701
	Volatiles	Thermo	ISQ	2012	ISQ120827
	1,4-Dioxane	Thermo	ISQ	2012	ISQ120935

	Tests	Vendor	Model	Year Acquired	Serial #
LCMS					
	Perchlorate, Acrylamide,PPCPs	Dionex	U3000	2006	2240601
	Perchlorate, Acrylamide, PPCPs	Waters	Ultima Quattro	2004	VB125
	Perchlorate, Acrylamide, PPCPs	Agilent	1200	2007	DOOSM9-382M
	Perchlorate, Acrylamide, PPCPs	AB SCIEX	API 5000	2008	AG22860808
	Horomones, Carbamates,Phenylurea	Agilent	1200 SL	2007	
	Horomones, Carbamates,Phenylurea	AB SCIEX	API 4000	2007	V20670708
	PFCs	Thermo	TSQ Vantage	2012	TQU03178
	Horomones	Thermo	TSQ Vantage	2012	TQU02731
	Bromate, Iodide, Perchlorate	Thermo	TSQ Quantum Ultra	2015	EXR-TQU03747
	PFC, Algal toxins, DX-ABI-neg	Thermo	TSQ Quantiva	2015	TQH010286

	Tests	Vendor	Model	Year Acquired	Serial #
HPLC					
	Carbamates	Dionex	P580	2001	8027611
	Carbomates, Diquat, Chlorinated Acids	Waters	2690/2487	1998	H96SM4168R
	Glyphosate	Dionex	P680	2005	8085404
	Diquat, Chlorinated Acids	Dionex	UltiMate 3000	2014	8093385
	Carbamates	Dionex	P580	2015	8068048

eurofins | Eaton Analytical

Analyte List

eurofins | Eaton Analytical

Date: 10/08/2013

@COLI-PA

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
E. coli Bacteria	SM 9223	100ml poly sterilized 0.25ml thio (8%)	30 HOUR	0		P=Pres/A=			68583-22-2
Total Coliform Bacteria	SM 9223	100ml poly sterilized 0.25ml thio (8%)	30 HOUR	0		P=Pres/A=			

eurofins | Eaton Analytical

Date: 10/08/2013

Heterotrophic Plate Count

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Heterotrophic Plate Count	SM 9215B	100ml poly sterilized 0.25ml thio (8%)	24 HOUR	1	1	CFU/ml			E761734

eurofins | Eaton Analytical

Date: 10/02/2013

#GMMST22

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Chloride	EPA 300.0	125ml poly no preservative	28 DAY	1.0	0.025	mg/L	90 - 110	80 - 120	16887-00-6
Sulfate	EPA 300.0	125ml poly no preservative	28 DAY	0.5	0.06	mg/L	90 - 110	80 - 120	14808-79-8
Nitrate as Nitrogen by IC	EPA 300.0	125ml poly no preservative	48 HOUR	0.1	0.005	mg/L	90 - 110	80 - 120	14797-55-8
Nitrate as NO3 (calc)	EPA 300.0	125ml poly no preservative	48 HOUR	0.44	0.022	mg/L		80 - 120	14797-55-8C
Nitrite Nitrogen by IC	EPA 300.0	125ml poly no preservative	48 HOUR	0.05	0.004	mg/L	90 - 110	80 - 120	14797-65-0
Total Nitrate, Nitrite-N, CALC	EPA 300.0	125ml poly no preservative	48 HOUR	0.1	0.005	mg/L			Nitrate, Total
Calcium Total ICAP	EPA 200.7	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.118	mg/L	85 - 115	70 - 130	7440-70-2
Iron Total ICAP	EPA 200.7	500ml acid poly 2ml HNO3 (18%)	180 DAY	0.02	0.00262	mg/L	85 - 115	70 - 130	7439-89-6
Magnesium Total ICAP	EPA 200.7	500ml acid poly 2ml HNO3 (18%)	180 DAY	0.1	0.003	mg/L	85 - 115	70 - 130	7439-95-4
Potassium Total ICAP	EPA 200.7	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.13	mg/L	85 - 115	70 - 130	07440-09-7
Sodium Total ICAP	EPA 200.7	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.113	mg/L	85 - 115	70 - 130	7440-23-5
Aluminum Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	20	0.782	ug/L	85 - 115	70 - 130	7429-90-5
Antimony Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.159	ug/L	85 - 115	70 - 130	7440-36-0
Arsenic Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.060	ug/L	85 - 115	70 - 130	7440-38-2
Barium Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	2	0.171	ug/L	85 - 115	70 - 130	7440-39-3
Beryllium Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.054	ug/L	85 - 115	70 - 130	7440-41-7
Cadmium Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	0.5	0.012	ug/L	85 - 115	70 - 130	7440-43-9
Chromium Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.088	ug/L	85 - 115	70 - 130	7440-47-3
Copper Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	2	0.197	ug/L	85 - 115	70 - 130	7440-50-8

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Lead Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	0.5	0.038	ug/L	85 - 115	70 - 130	7439-92-1
Manganese Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	2	0.056	ug/L	85 - 115	70 - 130	7439-96-5
Nickel Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	5	0.323	ug/L	85 - 115	70 - 130	7440-02-0
Selenium Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	5	0.153	ug/L	85 - 115	70 - 130	7782-49-2
Silver Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	0.5	0.014	ug/L	85 - 115	70 - 130	7440-22-4
Thallium Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.020	ug/L	85 - 115	70 - 130	7440-28-0
Zinc Total ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	20	1.235	ug/L	85 - 115	70 - 130	7440-66-6
Agressiveness Index-Calculated	SM 2330	N/A	180 DAY	0.1		None			AI
Alkalinity in CaCO3 units	SM 2320B	250ml poly no preservative	14 DAY	2	0.834	mg/L	90 - 110	80 - 120	471-34-1
Anion Sum - Calculated	SM 1030E	N/A	180 DAY	0.001		meq/L			Anion Sum
Bicarb.Alkalinity as HCO3calc	SM2330B	N/A	999 DAY	2	2	mg/L			BAlkalinity
Carbon DioxideFree(25C)-Calc.	SM4500-CO2-D	N/A	180 DAY	2	2	mg/L			124-38-9
Carbonate as CO3 Calculated	SM2330B	N/A	180 DAY	2	2	mg/L			3812-32-6
Cation Sum - Calculated	SM 1030E	N/A	180 DAY	0.001		meq/L			Cation Sum
Fluoride	SM 4500F-C	250 ml poly FLUORIDE_no preservative	28 DAY	0.05	0.007	mg/L	81 - 116	73 - 124	7782-41-4
Hydroxide as OH Calculated	SM2330B	N/A	180 DAY	2	2	mg/L			14280-30-9
Langelier Index - 25 degree	SM 2330B	N/A	180 DAY	-14	-14	None			LI-25
Langlier Index at 60 degrees C	SM 2330B	N/A	180 DAY	-14		None			LI-60
Mercury	EPA 245.1	500ml acid poly 2ml HNO3 (18%)	28 DAY	0.2	0.0424	ug/L	85 - 115	70 - 130	7439-97-6
PH (H3=past HT not compliant)	SM4500-HB	250ml poly no preservative	7 DAY	0.1	0.1	Units	98.3 - 101.7		pH (H3)
pH of CaCO3 saturation(25C)	SM 2330B	N/A	180 DAY	0.1	0.1	Units			pH-25C

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
pH of CaCO3 saturation(60C)	SM 2330B	N/A	14 DAY	0.1	0.1	Units			pH-60C
Specific Conductance	SM2510B	250ml poly no preservative	28 DAY	2	0.509	umho/cm	95 - 105		10010
Surfactants	SM 5540C/EPA 425.1	500ml poly no preservative	2 DAY	0.05	0.014	mg/L	90 - 110	80 - 120	10057
Total Dissolved Solid (TDS)	E160.1/SM2540C	500ml poly TDS - no preservative	7 DAY	10	4.224	mg/L	80 - 114		10052
Total Hardness as CaCO3 by ICP	SM 2340B	N/A	180 DAY	3	3	mg/L			Chardness

eurofins | Eaton Analytical

Date: 10/08/2013

#GP

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Apparent Color	SM 2120B	1L amber glass ODOR_no preservative	2 DAY	3	3	ACU	90 - 110		AC
Odor at 60 C (TON)	SM 2150B	1L amber glass ODOR_no preservative	1 DAY	1	1	TON			Odor-60
Turbidity	EPA 180.1	1L amber glass ODOR_no preservative	2 DAY	0.05	0.008	NTU	90 - 110		Turbidity

eurofins | Eaton Analytical

Date: 04/04/2014

Asbestos by TEM - >10 microns

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Asbestos by TEM - >10 microns	EPA 100.2	1L poly sonicated no preservative	48 HOUR	0.2	0.2	MFL			1332-21-4

eurofins | Eaton Analytical

Date: 10/31/2013

Hexavalent Chromium (Dissolved)

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Hexavalent chromium(Dissolved)	EPA 218.6	125ml poly 1ml NH4SO4/NH4OH buffer	5 DAY	0.020	0.009	ug/L	90 - 110	90 - 110	18540-29-9

eurofins | Eaton Analytical

Date: 10/08/2013

Cyanide

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Cyanide	SM4500CN-F	250 ml poly 2 ml NaOH (30%)+6 scoops AA	14 DAY	0.025	0.006	mg/L	90 - 110	80 - 120	57-12-5

eurofins | Eaton Analytical

Date: 10/31/2013

Perchlorate

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Perchlorate	EPA 314.0	125ml poly CLO4 - no preservative	28 DAY	4	0.254	ug/L	85 - 115	80 - 120	14797-73-0

eurofins | Eaton Analytical

Date: 07/08/2015

@331-PHG

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Perchlorate	EPA 331.0	125ml poly CLO4 - no preservative	28 DAY	0.5	0.08609	ug/L	80 - 120	50 - 150	14797-73-0

eurofins | Eaton Analytical

Date: 11/08/2013

@VOASDWA

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
1,1,1,2-Tetrachloroethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.149	ug/L	70 - 130	70 - 130	630-20-6
1,1,1-Trichloroethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.079	ug/L	70 - 130	70 - 130	71-55-6
1,1,2,2-Tetrachloroethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.101	ug/L	70 - 130	70 - 130	79-34-5
1,1,2-Trichloroethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.075	ug/L	70 - 130	70 - 130	79-00-5
1,1-Dichloroethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.133	ug/L	70 - 130	70 - 130	75-34-3
1,1-Dichloroethylene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.110	ug/L	70 - 130	70 - 130	75-35-4
1,1-Dichloropropene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.113	ug/L	70 - 130	70 - 130	563-58-6
1,2,3-Trichlorobenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.105	ug/L	70 - 130	70 - 130	87-61-6
1,2,3-Trichloropropane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.054	ug/L	70 - 130	70 - 130	96-18-4
1,2,4-Trichlorobenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.070	ug/L	70 - 130	70 - 130	120-82-1
1,2,4-Trimethylbenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.112	ug/L	70 - 130	70 - 130	95-63-6
1,2-Dichloroethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.119	ug/L	70 - 130	70 - 130	107-06-2
1,2-Dichloropropane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.071	ug/L	70 - 130	70 - 130	78-87-5
1,3,5-Trimethylbenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.066	ug/L	70 - 130	70 - 130	108-67-8
1,3-Dichloropropane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.101	ug/L	70 - 130	70 - 130	142-28-9
2,2-Dichloropropane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.154	ug/L	70 - 130	70 - 130	594-20-7
2-Butanone (MEK)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	5.0	1.061	ug/L	70 - 130	70 - 130	78-93-3
4-Methyl-2-Pentanone (MIBK)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	5.0	0.683	ug/L	70 - 130	70 - 130	108-10-1
Benzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.117	ug/L	70 - 130	70 - 130	71-43-2

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Bromobenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.086	ug/L	70 - 130	70 - 130	108-86-1
Bromochloromethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.177	ug/L	70 - 130	70 - 130	74-97-5
Bromodichloromethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.117	ug/L	70 - 130	70 - 130	75-27-4
Bromoethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.182	ug/L	70 - 130	70 - 130	74-96-4
Bromoform	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.142	ug/L	70 - 130	70 - 130	75-25-2
Bromomethane (Methyl Bromide)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.118	ug/L	70 - 130	70 - 130	74-83-9
Carbon disulfide	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.085	ug/L	70 - 130	70 - 130	75-15-0
Carbon Tetrachloride	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.087	ug/L	70 - 130	70 - 130	56-23-5
Chlorobenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.066	ug/L	70 - 130	70 - 130	108-90-7
Chlorodibromomethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.062	ug/L	70 - 130	70 - 130	124-48-1
Chloroethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.078	ug/L	70 - 130	70 - 130	75-00-3
Chloroform (Trichloromethane)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.113	ug/L	70 - 130	70 - 130	67-66-3
Chloromethane(Methyl Chloride)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.113	ug/L	70 - 130	70 - 130	74-87-3
cis-1,2-Dichloroethylene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.138	ug/L	70 - 130	70 - 130	156-59-2
cis-1,3-Dichloropropene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.108	ug/L	70 - 130	70 - 130	10061-01-5
Dibromomethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.099	ug/L	70 - 130	70 - 130	74-95-3
Dichlorodifluoromethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.099	ug/L	70 - 130	70 - 130	75-71-8
Dichloromethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.074	ug/L	70 - 130	70 - 130	75-09-2
Di-isopropyl ether	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	3	0.107	ug/L	70 - 130	70 - 130	108-20-3
Ethyl benzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.112	ug/L	70 - 130	70 - 130	100-41-4
Hexachlorobutadiene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.085	ug/L	70 - 130	70 - 130	87-68-3
Isopropylbenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.084	ug/L	70 - 130	70 - 130	98-82-8

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
m,p-Xylenes	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.226	ug/L	70 - 130	70 - 130	179601-23-1
m-Dichlorobenzene (1,3-DCB)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.084	ug/L	70 - 130	70 - 130	541-73-1
Methyl Tert-butyl ether (MTBE)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.074	ug/L	70 - 130	70 - 130	1634-04-4
Naphthalene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.146	ug/L	70 - 130	70 - 130	91-20-3
n-Butylbenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.056	ug/L	70 - 130	70 - 130	104-51-8
n-Propylbenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.088	ug/L	70 - 130	70 - 130	103-65-1
o-Chlorotoluene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.057	ug/L	70 - 130	70 - 130	95-49-8
o-Dichlorobenzene (1,2-DCB)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.076	ug/L	70 - 130	70 - 130	95-50-1
o-Xylene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.072	ug/L	70 - 130	70 - 130	95-47-6
p-Chlorotoluene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.122	ug/L	70 - 130	70 - 130	106-43-4
p-Dichlorobenzene (1,4-DCB)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.092	ug/L	70 - 130	70 - 130	106-46-7
p-Isopropyltoluene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.099	ug/L	70 - 130	70 - 130	99-87-6
sec-Butylbenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.102	ug/L	70 - 130	70 - 130	135-98-8
Styrene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.114	ug/L	70 - 130	70 - 130	100-42-5
tert-amyl Methyl Ether	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	3	0.112	ug/L	70 - 130	70 - 130	994-05-8
tert-Butyl Ethyl Ether	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	3	0.171	ug/L	70 - 130	70 - 130	637-92-3
tert-Butylbenzene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.094	ug/L	70 - 130	70 - 130	98-06-6
Tetrachloroethylene (PCE)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.5	ug/L	70 - 130	70 - 130	127-18-4
Toluene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.057	ug/L	70 - 130	70 - 130	108-88-3
Total 1,3-Dichloropropene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.108	ug/L	70 - 130	70 - 130	542-75-6
Total THM	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.062	ug/L	70 - 130	70 - 130	THM
Total xylenes	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.298	ug/L	70 - 130	70 - 130	1330-20-7

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
trans-1,2-Dichloroethylene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.105	ug/L	70 - 130	70 - 130	156-60-5
trans-1,3-Dichloropropene	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.135	ug/L	70 - 130	70 - 130	10061-02-6
Trichloroethylene (TCE)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.097	ug/L	70 - 130	70 - 130	79-01-6
Trichlorofluoromethane	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.183	ug/L	70 - 130	70 - 130	79-69-4
Trichlorotrifluoroethane(Freon	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.5	0.140	ug/L	70 - 130	70 - 130	76-13-1
Vinyl chloride (VC)	EPA 524.2	40ml amber glass vial 4drops 6N HCL (36%)	14 DAY	0.3	0.077	ug/L	70 - 130	70 - 130	75-01-4

eurofins | Eaton Analytical

Date: 10/31/2013

@551_EDB-DBCP

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Dibromochloropropane (DBCP)	EPA 551.1	60ml amber glass EDB1g(1%NaP/99%KP)+0.6%NH4CL	14 DAY	0.01	0.0084	ug/L	50 - 150	80 - 120	96-12-8
Ethylene Dibromide (EDB)	EPA 551.1	60ml amber glass EDB1g(1%NaP/99%KP)+0.6%NH4CL	14 DAY	0.01	0.0057	ug/L	50 - 150	80 - 120	106-93-4

eurofins | Eaton Analytical

Date: 10/02/2013

@525PLUS

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
2,4-Dinitrotoluene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.013	ug/L	70 - 130	70 - 130	121-14-2
2,6-Dinitrotoluene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.036	ug/L	70 - 130	70 - 130	606-20-2
4,4-DDD	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.015	ug/L	70 - 130	70 - 130	72-54-8
4,4-DDE	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.018	ug/L	70 - 130	70 - 130	72-55-9
4,4-DDT	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.031	ug/L	70 - 130	70 - 130	50-29-3
Acenaphthene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.016	ug/L	70 - 130	70 - 130	83-32-9
Acenaphthylene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.014	ug/L	70 - 130	70 - 130	208-96-8
Acetochlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.009	ug/L	70 - 130	70 - 130	34256-82-1
Alachlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.022	ug/L	70 - 130	70 - 130	15972-60-8
Aldrin	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.042	ug/L	70 - 130	70 - 130	309-00-2
Alpha-BHC	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.018	ug/L	70 - 130	70 - 130	319-84-6
alpha-Chlordane	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.029	ug/L	70 - 130	70 - 130	5103-71-9
Anthracene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.02	0.019	ug/L	70 - 130	70 - 130	120-12-7
Atrazine	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.048	ug/L	70 - 130	70 - 130	1912-24-9
Benz(a)Anthracene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.011	ug/L	70 - 130	70 - 130	56-55-3
Benzo(a)pyrene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.02	0.011	ug/L	70 - 130	70 - 130	50-32-8
Benzo(b)Fluoranthene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.02	0.011	ug/L	70 - 130	70 - 130	205-99-2
Benzo(g,h,i)Perylene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.012	ug/L	70 - 130	70 - 130	191-24-2
Benzo(k)Fluoranthene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.02	0.017	ug/L	70 - 130	70 - 130	207-08-9

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Beta-BHC	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.020	ug/L	70 - 130	70 - 130	319-85-7
Bromacil	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.2	0.029	ug/L	70 - 130	70 - 130	314-40-9
Butachlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.033	ug/L	70 - 130	70 - 130	23184-66-9
Butylbenzylphthalate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.5	0.063	ug/L	70 - 130	70 - 130	85-68-7
Caffeine by method 525mod	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.020	ug/L	45 - 137	46 - 144	58-08-2
Chlorobenzilate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.019	ug/L	70 - 130	70 - 130	510-15-6
Chloroneb	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.016	ug/L	70 - 130	70 - 130	2675-77-6
Chlorothalonil(Draconil,Bravo)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.016	ug/L	70 - 130	70 - 130	1897-45-6
Chlorpyrifos (Dursban)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.019	ug/L	70 - 130	70 - 130	2921-88-2
Chrysene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.02	0.014	ug/L	70 - 130	70 - 130	218-01-9
Delta-BHC	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.033	ug/L	70 - 130	70 - 130	319-86-8
Di-(2-Ethylhexyl)adipate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.6	0.063	ug/L	70 - 130	70 - 130	103-23-1
Di(2-Ethylhexyl)phthalate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.6	0.149	ug/L	70 - 130	70 - 130	117-81-7
Diazinon (Qualitative)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.025	ug/L	70 - 130	70 - 130	333-41-5
Dibenz(a,h)Anthracene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.033	ug/L	70 - 130	70 - 130	53-70-3
Dichlorvos (DDVP)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.022	ug/L	70 - 130	70 - 130	62-73-7
Dieldrin	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.2	0.017	ug/L	70 - 130	70 - 130	60-57-1
Diethylphthalate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.50	0.051	ug/L	70 - 130	70 - 130	84-66-2
Dimethoate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.033	ug/L	35 - 100	34 - 111	60-51-5
Dimethylphthalate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.5	0.039	ug/L	70 - 130	70 - 130	131-11-3
Di-n-Butylphthalate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	1	0.074	ug/L	70 - 130	70 - 130	84-74-2
Di-N-octylphthalate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.027	ug/L	70 - 130	70 - 130	117-84-0

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Endosulfan I (Alpha)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.058	ug/L	70 - 130	70 - 130	959-98-8
Endosulfan II (Beta)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.052	ug/L	70 - 130	70 - 130	33213-65-9
Endosulfan Sulfate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.040	ug/L	70 - 130	70 - 130	1031-07-8
Endrin	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.2	0.038	ug/L	70 - 130	70 - 130	72-20-8
Endrin Aldehyde	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.084	ug/L	70 - 130	70 - 130	7421-93-4
EPTC	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.013	ug/L	70 - 130	70 - 130	759-94-4
Fluoranthene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.010	ug/L	70 - 130	70 - 130	206-44-0
Fluorene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.014	ug/L	70 - 130	70 - 130	86-73-7
gamma-Chlordane	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.021	ug/L	70 - 130	70 - 130	5103-74-2
Heptachlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.03	0.013	ug/L	70 - 130	70 - 130	76-44-8
Heptachlor Epoxide (isomer B)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.023	ug/L	70 - 130	70 - 130	1024-57-3
Hexachlorobenzene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.041	ug/L	70 - 130	70 - 130	118-74-1
Hexachlorocyclopentadiene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.038	ug/L	70 - 130	70 - 130	77-47-4
Indeno(1,2,3,c,d)Pyrene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.027	ug/L	70 - 130	70 - 130	193-39-5
Isophorone	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.5	0.020	ug/L	70 - 130	70 - 130	78-59-1
Lindane	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.04	0.022	ug/L	70 - 130	70 - 130	58-89-9
Malathion	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.025	ug/L	70 - 130	70 - 130	121-75-5
Methoxychlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.032	ug/L	70 - 130	70 - 130	72-43-5
Metolachlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.016	ug/L	70 - 130	70 - 130	51218-45-2
Metribuzin	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.016	ug/L	70 - 130	70 - 130	21087-64-9
Molinate	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.015	ug/L	70 - 130	70 - 130	2212-67-1
Naphthalene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.3	0.014	ug/L	70 - 130	70 - 130	91-20-3

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Parathion	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.037	ug/L	70 - 130	70 - 130	56-38-2
Pendimethalin	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.047	ug/L	70 - 130	70 - 130	40487-42-1
Pentachlorophenol	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	1	0.324	ug/L	70 - 130	70 - 130	87-86-5
Permethrin (mixed isomers)	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.037	ug/L	70 - 130	70 - 130	52645-53-1
Phenanthrene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.04	0.008	ug/L	70 - 130	70 - 130	85-01-8
Propachlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.020	ug/L	70 - 130	70 - 130	1918-16-7
Pyrene	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.008	ug/L	70 - 130	70 - 130	129-00-0
Simazine	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.028	ug/L	70 - 130	70 - 130	122-34-9
Terbacil	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.069	ug/L	70 - 130	70 - 130	5902-51-2
Terbuthylazine	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.023	ug/L	70 - 130	70 - 130	591-541-3
Thiobencarb	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.2	0.017	ug/L	70 - 130	70 - 130	28249-77-6
trans-Nonachlor	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.05	0.026	ug/L	70 - 130	70 - 130	39765-80-5
Trifluralin	EPA 525.2	1L amber glass 2ml of 6N HCl	30 DAY	0.1	0.044	ug/L	70 - 130	70 - 130	1582-09-8

eurofins | Eaton Analytical

Date: 10/02/2013

@ML505

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Alachlor (Alanex)	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.041	ug/L	70 - 130	65 - 135	15972-60-8
Aldrin	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.01	0.002	ug/L	70 - 130	65 - 135	309-00-2
Chlordane	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.032	ug/L	70 - 130	65 - 135	57-74-9
Dieldrin	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.01	0.005	ug/L	70 - 130	65 - 135	60-57-1
Endrin	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.01	0.005	ug/L	70 - 130	65 - 135	72-20-8
Heptachlor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.01	0.003	ug/L	70 - 130	65 - 135	76-44-8
Heptachlor Epoxide	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.01	0.005	ug/L	70 - 130	65 - 135	1024-57-3
Lindane (gamma-BHC)	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.01	0.007	ug/L	70 - 130	65 - 135	58-89-9
Methoxychlor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.05	0.022	ug/L	70 - 130	65 - 135	72-43-5
PCB 1016 Aroclor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.08	0.022	ug/L	70 - 130	65 - 135	12674-11-2
PCB 1221 Aroclor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.079	ug/L	70 - 130	65 - 135	11104-28-2
PCB 1232 Aroclor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.085	ug/L	70 - 130	65 - 135	11141-16-5
PCB 1242 Aroclor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.072	ug/L	70 - 130	65 - 135	53469-21-9
PCB 1248 Aroclor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.023	ug/L	70 - 130	65 - 135	12672-29-6
PCB 1254 Aroclor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.035	ug/L	70 - 130	65 - 135	11097-69-1
PCB 1260 Aroclor	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.033	ug/L	70 - 130	65 - 135	11096-82-5
Total PCBs	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.1	0.1	ug/L		65 - 135	1336-36-3
Toxaphene	EPA 505	40ml amber glass vial 1drop thio (8%)	8 DAY	0.5	0.083	ug/L	70 - 130	65 - 135	8001-35-2

eurofins | Eaton Analytical

Date: 10/02/2013

@ML515.4

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
2,4,5-T	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.2	0.030	ug/L	70 - 130	70 - 130	93-76-5
2,4,5-TP (Silvex)	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.2	0.022	ug/L	70 - 130	70 - 130	93-72-1
2,4-D	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.1	0.028	ug/L	70 - 130	70 - 130	94-75-7
2,4-DB	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	2	0.524	ug/L	70 - 130	70 - 130	94-82-6
3,5-Dichlorobenzoic acid	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.5	0.069	ug/L	70 - 130	70 - 130	51-36-5
Acifluorfen	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.2	0.035	ug/L	70 - 130	70 - 130	50594-66-6
Bentazon	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.5	0.063	ug/L	70 - 130	70 - 130	25057-89-0
Dalapon	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	1	0.122	ug/L	70 - 130	70 - 130	75-99-0
Dicamba	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.1	0.017	ug/L	70 - 130	70 - 130	1918-00-9
Dichlorprop	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.5	0.056	ug/L	70 - 130	70 - 130	120-36-5
Dinoseb	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.2	0.024	ug/L	70 - 130	70 - 130	88-85-7
Pentachlorophenol	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.04	0.005	ug/L	70 - 130	70 - 130	87-86-5
Picloram	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.1	0.015	ug/L	70 - 130	70 - 130	01918-02-1
Tot DCPA Mono&Diacid Degradate	EPA 515.4	125ml amber glass 7mg SULFITE xls	14 DAY	0.1	0.044	ug/L	70 - 130	70 - 130	1861-32-1

eurofins | Eaton Analytical

Date: 10/02/2013

@ML531.2

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
3-Hydroxycarbofuran	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.143	ug/L	70 - 130	70 - 130	16655-82-6
Aldicarb (Temik)	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.160	ug/L	70 - 130	70 - 130	116-06-3
Aldicarb sulfone	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.172	ug/L	70 - 130	70 - 130	1646-88-4
Aldicarb sulfoxide	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.142	ug/L	70 - 130	70 - 130	1646-87-3
Baygon	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.247	ug/L	70 - 130	70 - 130	114-26-1
Carbaryl	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.160	ug/L	70 - 130	70 - 130	63-25-2
Carbofuran (Furadan)	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.104	ug/L	70 - 130	70 - 130	1563-66-2
Methiocarb	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.114	ug/L	70 - 130	70 - 130	2032-65-7
Methomyl	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.174	ug/L	70 - 130	70 - 130	16752-77-5
Oxamyl (Vydate)	EPA 531.2	40ml amber glass vial 0.37g KH2Citrate+6mg ThioSO4	28 DAY	0.5	0.173	ug/L	70 - 130	70 - 130	23135-22-0

eurofins | Eaton Analytical

Date: 10/04/2013

Glyphosate

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Glyphosate	EPA 547	125ml amber glass no preservative	14 DAY	6	1.6	ug/L	70 - 130	70 - 130	1071-83-6

eurofins | Eaton Analytical

Date: 10/02/2013

Endothall

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Endothall	EPA 548.1	250ml amber glass no preservative	14 DAY	5	2.653	ug/L	65 - 114	61 - 113	145-73-3

eurofins | Eaton Analytical

Date: 10/02/2013

@DIQUAT

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Diquat	EPA 549.2	1L amber poly no preservative	21 DAY	0.4	0.344	ug/L	70 - 130	70 - 130	85-00-7
Paraquat	EPA 549.2	1L amber poly no preservative	21 DAY	2	0.180	ug/L	70 - 130	70 - 130	1910-42-5

eurofins | Eaton Analytical

Date: 04/07/2014

@2378-TCDD_Dioxin

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
2,3,7,8-TCDD	EPA 1613B	1L amber glass D1613_NO_PRESERVATIVE	40 DAY	5.0	2.1	pg/L	73 - 146	73 - 146	1746-01-6

eurofins | Eaton Analytical

Date: 01/03/2014

@TCP-524

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
1,2,3-Trichloropropane	CASRL 524M-TCP	40ml amber glass vial TCP - 4drops of 1:1 HCL	14 DAY	0.005	0.002	ug/L	80 - 120	70 - 130	96-18-4

eurofins | Eaton Analytical

Date: 03/06/2014

@NDMA_SPE

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
N-Nitroso dimethylamine (NDMA)	EPA 521	500ml amber glass 40-50 mg Na Thiosulfate	28 DAY	2	0.962	ng/L	70 - 130	70 - 130	62-75-9

eurofins | Eaton Analytical

Date: 10/11/2013

@ML551.1

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Bromodichloromethane	EPA 551.1	60ml amber glass vial 1g (1%NaPhos/99%KPhos+ 0.6%NH4CL /	14 DAY	0.5	0.057	ug/L	80 - 120	80 - 120	75-27-4
Bromoform	EPA 551.1	60ml amber glass vial 1g (1%NaPhos/99%KPhos+ 0.6%NH4CL /	14 DAY	0.5	0.045	ug/L	80 - 120	80 - 120	75-25-2
Chloroform	EPA 551.1	60ml amber glass vial 1g (1%NaPhos/99%KPhos+ 0.6%NH4CL /	14 DAY	0.5	0.054	ug/L	80 - 120	80 - 120	67-66-3
Dibromochloromethane	EPA 551.1	60ml amber glass vial 1g (1%NaPhos/99%KPhos+ 0.6%NH4CL /	14 DAY	0.5	0.027	ug/L	80 - 120	80 - 120	124-48-1
Total Trihalomethanes	EPA 551.1	60ml amber glass vial 1g (1%NaPhos/99%KPhos+ 0.6%NH4CL /	14 DAY	0.5		ug/L	80 - 120	80 - 120	E-14471

eurofins | Eaton Analytical

Date: 10/08/2013

@HAA5

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
D/DBP Haloacetic Acids (HAA5)	SM 6251B	40ml amber glass vial 65mg NH4Cl	21 DAY	2	2	ug/L	80 - 120	70 - 130	ı-DBP (HAA5)
Dibromoacetic acid	SM 6251B	40ml amber glass vial 65mg NH4Cl	21 DAY	1	0.054	ug/L	80 - 120	84 - 122	631-64-1
Dichloroacetic acid	SM 6251B	40ml amber glass vial 65mg NH4Cl	21 DAY	1	0.105	ug/L	80 - 120	79 - 123	79-43-6
Monobromoacetic acid	SM 6251B	40ml amber glass vial 65mg NH4Cl	21 DAY	1	0.055	ug/L	80 - 120	81 - 122	79-08-3
Monochloroacetic acid	SM 6251B	40ml amber glass vial 65mg NH4Cl	21 DAY	2	0.410	ug/L	80 - 120	72 - 126	79-11-8
Trichloroacetic acid	SM 6251B	40ml amber glass vial 65mg NH4Cl	21 DAY	1	0.103	ug/L	80 - 120	82 - 124	76-03-9

eurofins | Eaton Analytical

Date: 10/31/2013

@RAD

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Alpha, Gross	EPA 900.0	500ml poly 2ml 18%HNO3+125ml poly/no pres	180 DAY	3	2.68	pCi/L	80 - 120	70 - 130	12587-46-1
Alpha, Min Detectable Activity	EPA 900.0	500ml poly 2ml 18%HNO3+125ml poly/no pres	180 DAY		2.68	pCi/L			Alpha min
Alpha, Two Sigma Error	EPA 900.0	500ml poly 2ml 18%HNO3+125ml poly/no pres	180 DAY			pCi/L			ALPHA_SE
Beta, Gross	EPA 900.0	500ml poly 2ml 18%HNO3+125ml poly/no pres	180 DAY	3	2.66	pCi/L	80 - 120	70 - 130	12587-47-2
Beta, Min Detectable Activity	EPA 900.0	500ml poly 2ml 18%HNO3+125ml poly/no pres	180 DAY		2.66	pCi/L			BETA_MD
Beta, Two Sigma Error	EPA 900.0	500ml poly 2ml 18%HNO3+125ml poly/no pres	180 DAY			pCi/L			BETA_SE
Gross Alpha + adjusted error	EPA 900.0	500ml poly 2ml 18%HNO3+125ml poly/no pres	180 DAY	3		pCi/L			12587-46-1C

eurofins | Eaton Analytical

Date: 10/08/2013

@RA226 GA

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Radium 226	Ra-226 GA	1L poly 4ml HNO3 (18%)	180 DAY	1		pCi/L	80 - 120	70 - 130	13982-63-3
Radium 226 Min Detect Activity	Ra-226 GA	1L poly 4ml HNO3 (18%)	180 DAY			pCi/L			ium 226 MDA
Radium 226 Two Sigma Error	Ra-226 GA	1L poly 4ml HNO3 (18%)	180 DAY			pCi/L			adium 226 Err

eurofins | Eaton Analytical

Date: 10/31/2013

@RA228 GA

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Radium 228	RA-228 GA	1L poly 4ml HNO3 (18%)	180 DAY	1		pCi/L	80 - 120	70 - 130	15262-20-1
Radium 228 Min Detect Activity	RA-228 GA	1L poly 4ml HNO3 (18%)	180 DAY			pCi/L			ium 228 MDA
Radium 228 Two Sigma Error	RA-228 GA	1L poly 4ml HNO3 (18%)	180 DAY			pCi/L			adium 228 Err

eurofins | Eaton Analytical

Date: 10/08/2013

#U-MST22

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Uranium ICAP/MS	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	1	0.05698	ug/L	85 - 115	70 - 130	7440-61-1
Uranium by ICPMS as pCi/L	EPA 200.8	500ml acid poly 2ml HNO3 (18%)	180 DAY	0.7	0.022	pCi/L		70 - 130	7440-61-1092

eurofins | Eaton Analytical

Date: 10/31/2013

@SR90EDD

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Strontium 90 (sub)	EPA 905.0	1L poly 4ml 18%HNO3+125ml poly/no pres	180 DAY	2		pCi/L			7440-24-6
Strontium-90, MDA	EPA 905.0	1L poly 4ml 18%HNO3+125ml poly/no pres	180 DAY			pCi/L			ıtium-90 MDA
Strontium-90, Two Sigma Error	EPA 905.0	1L poly 4ml 18%HNO3+125ml poly/no pres	180 DAY			pCi/L			ontium-90 Err

eurofins | Eaton Analytical

Date: 08/08/2016

Total Chlorine Residual

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Total Chlorine Residual	SM 4500-CL G	125ml amber glass CHL_no preservative	1 DAY	0.1	0.024	mg/L	85 - 115		7782-50-5

eurofins | Eaton Analytical

Date: 10/08/2013

Total Suspended Solids (TSS)

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Total Suspended Solids (TSS)	SM 2540D	500ml poly TDS - no preservative	7 DAY	10	4.441	mg/L	71 - 107		15

eurofins | Eaton Analytical

Date: 06/11/2014

@VOAPP

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
1,1,1-Trichloroethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.079	ug/L	79 - 121	75 - 144	71-55-6
1,1,2,2-Tetrachloroethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.149	ug/L	77 - 126	79 - 130	79-34-5
1,1,2-Trichloroethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.075	ug/L	79 - 116	76 - 129	79-00-5
1,1-Dichloroethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.133	ug/L	77 - 129	70 - 146	75-34-3
1,1-Dichloroethylene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.110	ug/L	77 - 139	75 - 134	75-35-4
1,2-Dichloroethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.119	ug/L	81 - 122	75 - 135	107-06-2
1,2-Dichloropropane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.071	ug/L	77 - 118	73 - 132	78-87-5
2-Butanone (MEK)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	5.0	1.061	ug/L	65 - 122	59 - 129	78-93-3
2-Hexanone	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	10	3.335	ug/L	72 - 128	71 - 134	591-78-6
4-Methyl-2-Pentanone (MIBK)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	5.0	0.683	ug/L	76 - 130	75 - 136	108-10-1
Acetone	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	10	4.016	ug/L	47 - 117	37 - 119	67-64-1
Acrolein (Screen)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	25	1.008	ug/L	50 - 150	50 - 150	107-02-8
Acrylonitrile (Screen)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	25	0.809	ug/L	50 - 150	50 - 150	107-13-1
Benzene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.117	ug/L	60 - 156	76 - 133	71-43-2
Bromodichloromethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.117	ug/L	77 - 113	77 - 130	75-27-4
Bromoform	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.142	ug/L	54 - 134	51 - 140	75-25-2
Bromomethane (Methyl Bromide)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.118	ug/L	67 - 144	55 - 147	74-83-9
Carbon disulfide	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.085	ug/L	63 - 131	65 - 155	75-15-0
Carbon Tetrachloride	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.087	ug/L	73 - 127	71 - 151	56-23-5
Chlorobenzene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.066	ug/L	57 - 166	77 - 132	108-90-7

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Chlorodibromomethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.062	ug/L	77 - 113	68 - 136	124-48-1
Chloroethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.078	ug/L	70 - 133	45 - 180	75-00-3
Chloroform (Trichloromethane)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.113	ug/L	78 - 117	76 - 133	67-66-3
Chloromethane(Methyl Chloride)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.113	ug/L	78 - 134	58 - 143	74-87-3
cis-1,2-Dichloroethylene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.138	ug/L	80 - 114	78 - 133	156-59-2
cis-1,3-Dichloropropene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.108	ug/L	68 - 123	65 - 120	10061-01-5
Dichlorodifluoromethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.099	ug/L	46 - 165	30 - 169	75-71-8
Dichloromethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.099	ug/L	77 - 121	75 - 132	75-09-2
Ethyl benzene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.112	ug/L	79 - 122	68 - 146	100-41-4
m,p-Xylenes	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.226	ug/L	82 - 123	79 - 142	179601-23-1
m-Dichlorobenzene (1,3-DCB)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.084	ug/L	76 - 124	76 - 139	541-73-1
Methyl Tert-butyl ether (MTBE)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.074	ug/L	70 - 130	70 - 130	1634-04-4
o-Dichlorobenzene (1,2-DCB)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.076	ug/L	79 - 118	80 - 125	95-50-1
o-Xylene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.072	ug/L	79 - 120	91 - 123	95-47-6
p-Dichlorobenzene (1,4-DCB)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.092	ug/L	74 - 130	71 - 145	106-46-7
Styrene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.114	ug/L	77 - 125	66 - 142	100-42-5
Tetrachloroethylene (PCE)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.085	ug/L	79 - 122	72 - 146	127-18-4
Tetrahydrofuran	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	10	2.094	ug/L	67 - 130	68 - 134	109-99-9
Toluene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.057	ug/L	80 - 118	66 - 143	108-88-3
Total 1,3-Dichloropropene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	1.0	0.108	ug/L	64 - 123	61 - 120	542-75-6
trans-1,2-Dichloroethylene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.105	ug/L	82 - 122	74 - 138	156-60-5
trans-1,3-Dichloropropene	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.135	ug/L	64 - 126	61 - 127	10061-02-6

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Trichloroethylene (TCE)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.097	ug/L	78 - 119	71 - 139	79-01-6
Trichlorofluoromethane	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.5	0.183	ug/L	70 - 145	63 - 161	75-69-4
Vinyl Acetate	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	10	0.927	ug/L	72 - 136	55 - 146	108-05-4
Vinyl chloride (VC)	EPA 624	40ml amber glass vial 4drops 6N HCL (36%)	7 DAY	0.3	0.077	ug/L	66 - 140	56 - 159	75-01-4

eurofins | Eaton Analytical

Date: 08/08/2016

2-Chloroethylvinylether by EPA 624

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
2-Chloroethylvinylether	EPA 624	40 ml VOA vial 2CEVE5_NO_PRESERVATIVE	14 DAY	0.5	0.4	ug/L	70 - 130	70 - 130	110-75-8

eurofins | Eaton Analytical

Date: 05/28/2014

@BNA

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
1,2,4-Trichlorobenzene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.01	ug/L	39 - 105	40 - 100	120-82-1
1,2-Diphenylhydrazine	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	1.34	ug/L	44 - 128	48 - 122	122-66-7
2,4,5-Trichlorophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.96	ug/L	41 - 125	46 - 114	95-95-4
2,4,6-Trichlorophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.26	ug/L	40 - 122	43 - 110	88-06-2
2,4-Dichlorophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	0.94	ug/L	40 - 113	40 - 106	120-83-2
2,4-Dimethylphenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.58	ug/L	35 - 107	37 - 95	105-67-9
2,4-Dinitrophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	50	1.91	ug/L	31 - 123	25 - 127	51-28-5
2,4-Dinitrotoluene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	2.06	ug/L	44 - 142	53 - 132	121-14-2
2,6-Dinitrotoluene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.66	ug/L	39 - 132	48 - 122	606-20-2
2-Chloronaphthalene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.41	ug/L	40 - 113	45 - 104	91-58-7
2-Chlorophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	0.94	ug/L	40 - 108	37 - 103	95-57-8
2-Methylnaphthalene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.50	ug/L	42 - 122	46 - 112	91-57-6
2-Methylphenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.69	ug/L	40 - 110	41 - 104	95-48-7
2-Nitroaniline	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	1.91	ug/L	27 - 153	46 - 127	88-74-4
2-Nitrophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	0.96	ug/L	38 - 118	39 - 111	88-75-5
3,3-Dichlorobenzidine	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	50	4.88	ug/L	50 - 262	50 - 262	91-94-1
3-Nitroaniline	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	20	2.20	ug/L	37 - 163	41 - 159	99-09-2
4,6-Dinitro-o-cresol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	50	1.78	ug/L	50 - 150	30 - 130	534-52-1
4-Bromophenylphenylether	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.85	ug/L	43 - 125	48 - 118	101-55-3

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
4-Chloroaniline	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	2.09	ug/L	49 - 140	52 - 131	106-47-8
4-Chlorophenylphenylether	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.84	ug/L	42 - 123	49 - 115	7005-72-3
4-Methylphenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.69	ug/L	42 - 111	40 - 107	106-44-5
4-Nitroaniline	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	20	3.86	ug/L	36 - 171	45 - 166	100-01-6
4-Nitrophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	1.82	ug/L	18 - 135	15 - 136	100-02-7
Acenaphthene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.51	ug/L	40 - 123	46 - 113	83-32-9
Acenaphthylene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.93	ug/L	37 - 123	43 - 114	208-96-8
Aniline	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	3.54	ug/L	31 - 227	30 - 214	62-53-3
Anthracene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.47	ug/L	42 - 130	49 - 119	120-12-7
Benzidine	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	50	10.21	ug/L	10 - 150	12 - 87	92-87-5
Benzo(a)anthracene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.96	ug/L	44 - 138	55 - 124	56-55-3
Benzo(a)pyrene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.94	ug/L	41 - 146	51 - 130	50-32-8
Benzo(b)fluoranthene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	2.56	ug/L	41 - 145	46 - 133	205-99-2
Benzo(g,h,i)perylene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	2.92	ug/L	37 - 142	43 - 126	191-24-2
Benzo(k)fluoranthene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	2.56	ug/L	39 - 138	50 - 122	207-08-9
Benzoic Acid	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	50	3.19	ug/L	20 - 150	16 - 110	65-85-0
Benzyl Alcohol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	0.78	ug/L	46 - 119	47 - 114	100-51-6
bis(2-Chloroethoxy)methane	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	1.63	ug/L	40 - 113	41 - 106	111-91-1
bis(2-Chloroethyl)ether	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	1.46	ug/L	37 - 111	38 - 104	111-44-4
bis(2-Chloroisopropyl)ether	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	1.82	ug/L	41 - 111	40 - 106	108-60-1
Butylbenzylphthalate	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.71	ug/L	44 - 146	47 - 127	85-68-7
Chrysene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.87	ug/L	45 - 162	46 - 146	218-01-9

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Di(2-Ethylhexyl)phthalate	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	4	1.93	ug/L	39 - 154	29 - 174	117-81-7
Dibenz(a,h)anthracene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	3.07	ug/L	35 - 155	43 - 138	53-70-3
Dibenzofuran	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.83	ug/L	40 - 127	48 - 116	132-64-9
Diethylphthalate	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.86	ug/L	41 - 128	43 - 111	84-66-2
Dimethylphthalate	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.94	ug/L	38 - 124	41 - 105	131-11-3
Di-n-butylphthalate	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	2.62	ug/L	41 - 143	49 - 121	84-74-2
Di-n-octylphthalate	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	2.66	ug/L	43 - 151	49 - 140	117-84-0
Fluoranthene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	2.27	ug/L	40 - 143	47 - 130	206-44-0
Fluorene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	2.01	ug/L	41 - 126	48 - 117	86-73-7
Hexachlorobenzene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.37	ug/L	42 - 129	48 - 120	118-74-1
Hexachlorobutadiene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	1.17	ug/L	36 - 103	37 - 98	87-68-3
Hexachlorocyclopentadiene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	3.28	ug/L	23 - 83	17 - 73	77-47-4
Hexachloroethane	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.56	ug/L	37 - 105	36 - 102	67-72-1
Indeno(1,2,3-c,d)pyrene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	10	3.01	ug/L	37 - 145	39 - 132	193-39-5
Isophorone	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	0.89	ug/L	44 - 123	46 - 113	78-59-1
Naphthalene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.33	ug/L	40 - 111	41 - 105	91-20-3
Nitrobenzene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.09	ug/L	40 - 111	40 - 106	98-95-3
N-Nitrosodimethylamine	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.83	ug/L	29 - 127	31 - 118	62-75-9
N-Nitrosodi-N-propylamine	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	2.48	ug/L	44 - 117	44 - 110	621-64-7
N-Nitrosodiphenylamine	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.54	ug/L	53 - 183	58 - 174	86-30-6
p-Chloro-m-cresol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.91	ug/L	43 - 124	45 - 116	59-50-7
Pentachlorophenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	20	2.02	ug/L	37 - 145	45 - 130	87-86-5

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Phenanthrene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.09	ug/L	40 - 136	46 - 126	85-01-8
Phenol	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.91	ug/L	37 - 107	33 - 104	108-95-2
Pyrene	EPA 625	1L amber glass BNA_NO_PRESERVATIVE	40 DAY	5	1.44	ug/L	44 - 138	53 - 127	129-00-0

eurofins | Eaton Analytical

Date: 03/31/2015

#608EDD

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
PCB 1016 Aroclor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.50	ug/L			12674-11-2
PCB 1221 Aroclor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.50	ug/L			11104-28-2
PCB 1232 Aroclor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.50	ug/L			11141-16-5
PCB 1242 Aroclor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.50	ug/L			53469-21-9
PCB 1248 Aroclor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.50	ug/L			12672-29-6
PCB 1254 Aroclor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.50	ug/L			11097-69-1
PCB 1260 Aroclor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.50	ug/L			11096-82-5
4,4-DDD	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			72-54-8
4,4-DDE	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			72-55-9
4,4-DDT	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			50-29-3
Aldrin	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			309-00-2
alpha-BHC	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			319-84-6
alpha-Chlordane	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			5103-71-9
beta-BHC	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			319-85-7
delta-BHC	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			319-86-8
Dieldrin	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			60-57-1
Endosulfan I (Alpha)	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			959-98-8
Endosulfan II (Beta)	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			33213-65-9
Endosulfan Sulfate	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			1031-07-8
Endrin	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			72-20-8

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Endrin Aldehyde	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			7421-93-4
Endrin Ketone	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			
Gamma-BHC	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.1	0.010	ug/L			
gamma-Chlordane	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.10	0.010	ug/L			5103-74-2
Heptachlor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.1	0.010	ug/L			76-44-8
Heptachlor Epoxide	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	0.1	0.010	ug/L			1024-57-3
Methoxychlor	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	1.0	0.10	ug/L			72-43-5
Toxaphene	EPA 608	1L amber glass 1ml thio (8%)	7 DAY	2.0	0.50	ug/L			8001-35-2

eurofins | Eaton Analytical

Date: 02/14/2014

@QUANT2000 18HR

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
18 Hour E. Coli Confirmed (Large Wells)	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY	1		PT			
18 Hour E. Coli Confirmed (Small Wells)	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY	1		PT			
18 Hour Fecal Coliform Confirmed (Large We	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY	1		PT			
18 Hour Fecal Coliform Confirmed (Small We	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY	1		PT			
18 Hour Total Coliform Confrm (Large Wells)	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY	1		PT			
18 Hour Total Coliform Confrm (Small Wells)	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY	1		PT			
E. Coli Bacteria	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY			MPN/100 n			68583-22-2
Fecal Coliform	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY			MPN/100 n			
Total Coliform Bacteria	SM 9223B	100ml poly sterilized 0.25ml thio (8%)	2 DAY			MPN/100 n			

eurofins | Eaton Analytical

Date: 06/16/2014

Biochemical Oxygen Demand Totl

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Biochemical Oxygen DemandTotl	SM5210B 405.1	1L poly no preservative	48 HOUR	3	2	mg/L	85 - 115		684

eurofins | Eaton Analytical

Date: 01/17/2014

Chemical Oxygen Demand (COD)

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Chemical Oxygen Demand (COD)	EPA 410.4	125ml poly 0.5ml H2SO4 (50%)	28 DAY	5	2.457	mg/L	90 - 110	90 - 110	

eurofins | Eaton Analytical

Date: 04/15/2014

Ammonia Nitrogen

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Ammonia Nitrogen	EPA 350.1	250ml poly 0.5ml H2SO4 (50%)	28 DAY	0.05	0.003	mg/L	90 - 110	90 - 110	7664-41-7

eurofins | Eaton Analytical

Date: 01/23/2015

Cyanide by manual distillation

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Cyanide by manual distillation	EPA 335.4	250 ml poly 2 ml NaOH (30%)+6 scoops AA	14 DAY	0.005	0.002	mg/L	90 - 110	90 - 110	57-12-5

eurofins | Eaton Analytical

Date: 01/17/2014

Volatile Suspended Solids

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Volatile Suspended Solids	EPA 160.4	500ml poly no preservative	7 DAY	10		mg/L			

eurofins | Eaton Analytical

Date: 04/15/2014

Boron Total ICAP

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Boron Total ICAP	EPA 200.7	500ml acid poly 2ml HNO3 (18%)	180 DAY	0.05	0.008	mg/L	85 - 115	70 - 130	7440-42-8

eurofins | Eaton Analytical

Date: 10/08/2013

Total Organic Carbon

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Total Organic Carbon	SM5310C/E415.3	125ml amber glass 0.5ml H2SO4 (50%)	28 DAY	0.3	0.042	mg/L	90 - 110	80 - 120	387

eurofins | Eaton Analytical

Date: 06/16/2014

Total Kjeldahl Nitrogen

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Kjeldahl Nitrogen	EPA 351.2	250ml poly 0.5ml H2SO4 (50%)	28 DAY	0.2	0.0440	mg/L	90 - 110	90 - 110	7727-37-9

eurofins | Eaton Analytical

Date: 05/19/2014

Total phosphorus as P

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Total phosphorus as P	SM4500-PE/EPA 365.1	250ml poly 0.5ml H2SO4 (50%)	28 DAY	0.02	0.00840	mg/L	90 - 110	90 - 110	7723-14-0

eurofins | Eaton Analytical

Date: 08/08/2016

Total Solids

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Total Solids	SM 2540B	500ml poly TDS - no preservative	7 DAY	10		mg/L	85 - 115		TS

eurofins | Eaton Analytical

Date: 10/08/2013

Settleable Solids (SS)

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Settleable Solids (SS)	SM 2540F	1L poly SS - No preservative	2 DAY	0.1	0.1	ml/l			691

eurofins | Eaton Analytical

Date: 08/08/2016

Volatile Acids Subbed

ANALYTE	METHOD	CONTAINER & PRESERVATIVES	HOLDING TIME	MRL	MDL	UNITS	LCS RANGE	MS RANGE	CAS #
Volatile Acids	SM 5560C	500ml poly Vol Acid_no pres	7 DAY	20		mg/L			

eurofins | Eaton Analytical

Report Example

eurofins | Eaton Analytical

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

NELAP ACCREDITED TNI LABORATORY 01114CA

ilac-MRA

ACLASS ACCREDITED TESTING AT-1807

Laboratory Report

for

Date of Issue
01/07/2014
Yolanda Martin
EUROFINS EATON ANALYTICAL

Report: 462863
Project: SOURCE
Group: Weekly-VOC

YOM: Yolanda.O.Martin

Project Manager

* Laboratory certifies that the test results meet all **TNI NELAP** requirements unless noted under the individual analysis.
* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report,
Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
* Test results relate only to the sample(s) tested.
* This report shall not be reproduced except in full, without the written approval of the laboratory.

eurofins | Eaton Analytical

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	**Mississippi**	Certified
Alaska	CA00006	**Montana**	Cert 0035
Arizona	AZ0778	**Nebraska**	Certified
Arkansas	Certified	**Nevada**	CA00006-2012-1
California – NELAP *	01114CA	**New Hampshire ***	2959
California-Monrovia-ELAP	2813	**New Jersey ***	CA 008
Los Angeles County Sanitation Districts	10264	**New Mexico**	Certified
Colorado	Certified	**New York ***	11320
Connecticut	PH-0107	**North Carolina**	06701
Delaware	CA 006	**North Dakota**	R-009
Florida *	E871024	**Oregon ***	CA 200003-011
Georgia	947	**Pennsylvania ***	68-565
Guam	13-004r	**Rhode Island**	LAO00326
Hawaii	Certified	**South Carolina**	87016001
Idaho	Certified	**South Dakota**	Certified
Illinois *	200033	**Tennessee**	TN02839
Indiana	C-CA-01	**Texas ***	T104704230-13-5
Kansas *	E-10268	**Utah ***	CA000062013
Kentucky	90107	**Vermont**	VT0114
Louisiana *	LA130008	**Virginia ***	00210
Maine	CA0006	**Washington**	C838
Maryland	224	**West Virginia**	9943 C
Commonwealth of Northern Marianas Is.	MP0004	**Wisconsin**	998316660
Massachusetts	M-CA006	**Wyoming**	8TMS-L
Michigan	9906	**EPA Region 5**	Certified
California-Colton- ELAP	2812	**California-Folsom- ELAP**	2820

* NELAP/TNI Recognized Accreditation Bodies

The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.
Refer to Certificate and scope of accreditation (AT 1807) found at: http://www.eatonanalytical.com

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
1,4-Dioxane	EPA 522	x	x	
2,3,7,8-TCDD	Modified EPA 1613B	x	x	
Acrylamide	In House Method	x	x	
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H (18th)		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x	x	
Asbestos	EPA 100.2	x		
Bicarbonate Alkalinity as HCO3	SM 2330B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method	x	x	
Carbamates	EPA 531.2	x	x	
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x	x	
COD	EPA 410.4 / SM 5220D			x
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x	x	
Chlorinated Acids	EPA 555	x	x	
Chlorine Dioxide	SM 4500-CLO2 D	x	x	
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	x	x	x
Conductivity	EPA 120.1			x
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x	x	
Cyanide, Amenable	SM 4500-CN G	x		x
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method	x	x	
Diquat and Paraquat	EPA 549.2	x	x	
DBP/HAA	SM 6251B	x	x	
Dissolved Oxygen	SM 4500-O G		x	x
E. Coli	(MTF/EC+MUG)	x		
E. Coli	CFR 141.21(f)(6)(i)		x	x
E. Coli	SM 9223			x
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DBCP and DBP	EPA 551.1	x	x	
EDTA and NTA	In House Method	x	x	
Endothall	EPA 548.1	x	x	
Enterococci	SM 9230B	x		x
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221C, E (MTF/EC)			x
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x	x	
Fecal Coliform with Chlorine Present	SM 9221E			x
Fecal Streptococci	SM 9230B	x		x
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x	x	
Gross Alpha/Beta	EPA 900.0	x	x	x
HAAs/ Dalapon	EPA 552.3	x	x	
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method	x	x	
Heterotrophic Bacteria	SM 9215 B	x	x	
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x	x	
Hexavalent Chromium	SM 3500-Cr B or C (20th)			x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
Hormones	EPA 539	x	x	
Hydroxide as OH Calc.	SM 2330B	x	x	
Kjeldahl Nitrogen	EPA 351.2			x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA	x	x	
NDMA	EPA 521	x	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x	x	
Ortho Phosphate	EPA 365.1	x	x	
Ortho Phosphate and Total Phosphorous	EPA 365.1/SM 4500-P E			x
Ortho Phosphorous	SM 4500P E	x	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	x	
Perchlorate	EPA 331.0	x	x	
Perchlorate	EPA 314.0	x	x	
Perfluorinated Alkyl Acids	EPA 537	x	x	
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method	x	x	
Pseudomonas	IDEXX Pseudalert	x	x	
Radium-226	RA-226 GA	x	x	
Radium-228	RA-228 GA	x	x	
Radon-222	SM 7500RN	x	x	
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D			x
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4			x
Semi-VOC	EPA 525.2	x	x	
Semi-VOC	EPA 625	x	x	x
Silica	SM 4500-Si D	x	x	x
Silica	SM 4500-SiO2 C	x		x
Sulfide	SM 4500-$S^{=}$ D			x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x	x	
Total Coliform	SM 9221 A, B	x	x	
Total Coliform (Enumeration)	SM 9221 A, B, C	x	x	
Total Coliform / E. coli	Colisure	x	x	
Total Coliform	SM 9221B			x
Total Coliform with Chlorine Present	SM 9221B			x
Total Coliform / E.coli	SM 9223	x	x	
TOC	SM 5310C		x	x
TOC/DOC	SM 5310C	x	x	
TOX	SM 5320B			x
Total Phenols	EPA 420.1			x
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P F			x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x		x
Uranium by ICP/MS	EPA 200.8	x	x	
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x	x	
VOC	EPA 624	x	x	x
VOC	EPA SW 846 8260	x	x	
VOC	In House Method	x	x	
Yeast and Mold	SM 9610	x	x	

eurofins | Eaton Analytical

Acknowledgement of Samples Received

Addr:

Client ID:
Folder #: 462863
Project: SOURCE
Sample Group: Weekly-VOC

Attn:
Phone:

Project Manager: Yolanda.O.Martin
Phone: (626)-386-1104

The following samples were received from you on **December 30, 2013**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
201312300074		12/30/2013 0804
	PS Code: 1910090-006 PS Description: D	
	@VOAMON C	
201312300075		12/30/2013 0817
	PS Code: 1910090-011 PS Description:	
	@VOAMON C	
201312300076		12/30/2013 0823
	PS Code: 1910090-012 PS Description:	
	@VOAMON C	
201312300077		12/30/2013 0819
	@VOAMON C	

Test Description

@VOAMON C -- Volatile Organics by GCMS

750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (626) 386-1101 http://www.EatonAnalytical.com

eurofins | Eaton Analytical

CHAIN OF CUSTODY RECORD

MWH LABS USE ONLY: PAGE 1 OF 1

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629
Phone: 626 386 1100
800 566 LABS (800 566 5227)
Fax: 626 386 1101
Website: www.EatonAnalytical.com

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: _____

SAMPLES LOGGED IN BY: _____

SAMPLE TEMP WHEN REC'D AT LAB: _____ (Compliance: 4 +/- 2°C)

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

CONDITION OF BLUE ICE: FROZEN ___ PARTIALLY FROZEN ___ THAWED ___

TO BE COMPLETED BY SAMPLER:

COMPANY, UTILITY or PROJECT:

SYSTEM #:

COMPLIANCE SAMPLES ☐ (check for yes)
- Requires state forms ☐

NON-COMPLIANCE SAMPLES ☐ (check for yes)
REGULATION INVOLVED: (eg. SDWA, Phase V, NPDES, FDA,...)

Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION

MWH LABS CLIENT CODE:

P.O.# / JOB # / PROJECT : WEEKLY

SEE ATTACHED BOTTLE ORDER FOR ANALYSES ☐ (check for yes), OR

LIST ANALYSES REQUIRED BELOW (enter number of bottles sent for each test for each sample):

SAMPLER PRINTED NAME AND SIGNATURE:

TAT requested: rush by adv notice only
STD___ 1 week ___ 3 day ___ 2 day___ 1 day ___

SAMPLE DATE	SAMPLE TIME	STATION # or LOCATION	SITE NAME OR SAMPLE I.D.	MATRIX *	GRAB	COMP	VOAMON		TEMP F°													SAMPLER COMMENTS
		W#2 WELL #2	1910090-002																			
		W#3 WELL #3	1910090-003																			
		W#4 WELL #4	1910090-004																			
		W#5 WELL #5	1910090-005																			
		W#6 WELL #6	1910090-008																			
		WELLS BLEND	1910090-006				X															
		TOWER #1	1910090-009				X															
		TOWER #2	1910090-010				X															
		TOWER #3	1910090-011				X															
		TOWER #4	1910090-012				X															
		COMBINE INFLUENT	1994 PTA				X															
		COMBINED INFLUENT	2006 PTA				X															

*** MATRIX TYPES:**
RSW = Raw Surface Water
RGW = Raw Ground Water
CFW = Chlor(am)inated Finished Water
FW = Other Finished Water
CWW = Chlorinated Waste Water
WW = Other Waste Water
BW = Bottled Water
SW = Storm Water
SO = Soil
SL = Sludge

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:					
RECEIVED BY:					
RELINQUISHED BY:					
RECEIVED BY:					
RELINQUISHED BY:					
RECEIVED BY:					

C-O-C# _____

PAGE _____ OF _____

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Hits
Report: 462863

Samples Received on:
12/30/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	201312300074					
12/30/2013 22:09	Trichloroethylene (TCE)		1.6	5	ug/L	0.5
	201312300077					
12/30/2013 23:18	Tetrachloroethylene (PCE)		0.95	5	ug/L	0.5
12/30/2013 23:18	Trichloroethylene (TCE)		7.1	5	ug/L	0.5

SUMMARY OF POSITIVE DATA ONLY

eurofins | Eaton Analytical

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Data
Report: 462863

Samples Received on:
12/30/2013

Prepared	Analyzed		QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
1910090-006 WELLS BLEND (201312300074)							**Sampled on 12/30/2013 0804**		
		EPA 524.2 - Volatile Organics by GCMS							
12/30/2013	12/30/2013	22:09	744151	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
12/30/2013	12/30/2013	22:09	744151	(EPA 524.2)	Trichloroethylene (TCE)	1.6	ug/L	0.5	1
12/30/2013	12/30/2013	22:09	744151	(EPA 524.2)	1,2-Dichloroethane-d4	110	%		1
12/30/2013	12/30/2013	22:09	744151	(EPA 524.2)	4-Bromofluorobenzene	101	%		1
12/30/2013	12/30/2013	22:09	744151	(EPA 524.2)	Toluene-d8	95	%		1
1910090-011 TOWER 3 (201312300075)							**Sampled on 12/30/2013 0817**		
		EPA 524.2 - Volatile Organics by GCMS							
12/30/2013	12/30/2013	22:32	744151	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
12/30/2013	12/30/2013	22:32	744151	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
12/30/2013	12/30/2013	22:32	744151	(EPA 524.2)	1,2-Dichloroethane-d4	105	%		1
12/30/2013	12/30/2013	22:32	744151	(EPA 524.2)	4-Bromofluorobenzene	94	%		1
12/30/2013	12/30/2013	22:32	744151	(EPA 524.2)	Toluene-d8	93	%		1
1910090-012 TOWER 4 (201312300076)							**Sampled on 12/30/2013 0823**		
		EPA 524.2 - Volatile Organics by GCMS							
12/30/2013	12/30/2013	22:55	744151	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.5	1
12/30/2013	12/30/2013	22:55	744151	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.5	1
12/30/2013	12/30/2013	22:55	744151	(EPA 524.2)	1,2-Dichloroethane-d4	112	%		1
12/30/2013	12/30/2013	22:55	744151	(EPA 524.2)	4-Bromofluorobenzene	96	%		1
12/30/2013	12/30/2013	22:55	744151	(EPA 524.2)	Toluene-d8	94	%		1
COMBINED INFLUENT 2006 PTA (201312300077)							**Sampled on 12/30/2013 0819**		
		EPA 524.2 - Volatile Organics by GCMS							
12/30/2013	12/30/2013	23:18	744151	(EPA 524.2)	Tetrachloroethylene (PCE)	0.95	ug/L	0.5	1
12/30/2013	12/30/2013	23:18	744151	(EPA 524.2)	Trichloroethylene (TCE)	7.1	ug/L	0.5	1
12/30/2013	12/30/2013	23:18	744151	(EPA 524.2)	1,2-Dichloroethane-d4	109	%		1
12/30/2013	12/30/2013	23:18	744151	(EPA 524.2)	4-Bromofluorobenzene	99	%		1
12/30/2013	12/30/2013	23:18	744151	(EPA 524.2)	Toluene-d8	95	%		1

Rounding on totals after summation.
(c) - indicates calculated results

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Comments
Report: 462863

The Comments Report may be blank if there are no comments for this report.

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

QC Ref # 744151 - Volatile Organics by GCMS **Analysis Date: 12/30/2013**

201312300074	Analyzed by: JYH
201312300075	Analyzed by: JYH
201312300076	Analyzed by: JYH
201312300077	Analyzed by: JYH

eurofins | Eaton Analytical

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory QC
Report: 462863

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 744151 - Volatile Organics by GCMS by EPA 524.2						**Analysis Date: 12/30/2013**			
LCS1	1,2-Dichloroethane-d4 (S)			112	%	112	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)			103	%	103	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			110	%	110	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)			105	%	105	(70-130)		
LCS1	4-Bromofluorobenzene (S)			97.4	%	97	(70-130)		
LCS2	4-Bromofluorobenzene (S)			96.4	%	96	(70-130)		
MBLK	4-Bromofluorobenzene (S)			98.4	%	98	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)			99.2	%	99	(70-130)		
LCS1	Tetrachloroethylene (PCE)		5.0	5.08	ug/L	102	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5.0	4.90	ug/L	98	(70-130)	20	3.6
MBLK	Tetrachloroethylene (PCE)			<0.5	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.510	ug/L	102	(50-150)		
LCS1	Toluene-d8 (S)			102	%	102	(70-130)		
LCS2	Toluene-d8 (S)			95.6	%	96	(70-130)		
MBLK	Toluene-d8 (S)			90.6	%	91	(70-130)		
MRL_CHK	Toluene-d8 (S)			92.2	%	92	(70-130)		
LCS1	Trichloroethylene (TCE)		5.0	4.87	ug/L	97	(70-130)		
LCS2	Trichloroethylene (TCE)		5.0	4.31	ug/L	86	(70-130)	20	12
MBLK	Trichloroethylene (TCE)			<0.5	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.510	ug/L	102	(50-150)		

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
(S) - Indicates surrogate compound.
(I) - Indicates internal standard compound.

ORGANIC CHEMICAL ANALYSIS (11/07)

Date of Report: 1/7/2014 Sample ID No.: 201312300074 - 462863

Laboratory Name: Eurofins Eaton Analytical

Name of Sampler: Employed by:

Date/Time Sample Collected: 12/30/2013 0804 Date/Time Received @Lab: 12/30/2013 Date Analyses Completed. 12/30/2013

System Name: Variable ID: System Number:

COC ID:

Name or Number of Sample Source:

User ID: 4th **Station number:**

Date/Time of Sample: 13 12 30 0804 **Laboratory Code:** |__|_____

YY MM DD TTTT

Date Analyses completed: 13 12 30

YY MM DD

Submitted by: Phone#

TEST METHOD	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8 TCDD (DIOXIN) reported uG/L		ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
	REGULATED ORGANIC CHEMICALS					
524.2	Tetrachloroethylene (PCE)	ug/L	34475	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	ug/L	39180	1.6	5	0.5

ORGANIC CHEMICAL ANALYSIS (11/07)

Date of Report: 1/7/2014

Sample ID No.: 201312300075 - 462863

Laboratory Name: Eurofins Eaton Analytical

Name of Sampler:

Employed by:

Date/Time Sample Collected: 12/30/2013 0817

Date/Time Received @Lab: 12/30/2013

Date Analyses Completed. 12/30/2013

System Name:

System Number:

Variable ID:

COC ID:

Name or Number of Sample Source:

User ID:

Station number:

Date/Time of Sample: 13 12 30 0817
YY MM DD TTTT

Laboratory Code:

Date Analyses completed: 13 12 30
YY MM DD

Submitted by: Shawn Igoe

Phone# 626 256-8292

TEST METHOD	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8 TCDD (DIOXIN) reported uG/L		ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
REGULATED ORGANIC CHEMICALS						
524.2	Tetrachloroethylene (PCE)	ug/L	34475	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	ug/L	39180	<0.5	5	0.5

ORGANIC CHEMICAL ANALYSIS (11/07)

Date of Report: 1/7/2014

Sample ID No.: 201312300076 - 462863

Laboratory Name: Eurofins Eaton Analytical

Name of Sampler:

Employed by:

Date/Time Sample Collected: 12/30/2013 0823

Date/Time Received @Lab: 12/30/2013

Date Analyses Completed. 12/30/2013

System Name:

System Number:

Variable ID:

COC ID:

Name or Number of Sample Source:

User ID:

Station number: 1910090-012

Date/Time of Sample: 13 12 30 0823
YY MM DD TTTT

Laboratory Code: |

Date Analyses completed: 13 12 30
YY MM DD

Submitted by:

Phone#

TEST METHOD	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8 TCDD (DIOXIN) reported uG/L		ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
	REGULATED ORGANIC CHEMICALS					
524.2	Tetrachloroethylene (PCE)	ug/L	34475	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	ug/L	39180	<0.5	5	0.5

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016
TEL (626) 386-1100 FAX (626) 386-1101
www.eatonanalytical.com

110 South Hill Street
South Bend, IN 46617
TEL (574) 233-4777 FAX (574) 233-8207
www.eatonanalytical.com

eurofins | Eaton Analytical

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

BOARD OF WATER COMMISSIONERS
STAFF REPORT

TO: Stacey R. Aldstadt, General Manager

FROM: Robin L. Ohama, Deputy General Manager

SUBJECT: **AWARD OF CONTRACT – JANITORIAL SERVICES AT THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT FACILITIES SPECIFICATION NO. 1662**

DATE: November 30, 2016

COPIES: J. Claus, T. Willoughby, M. Guerrero, A. Winchester

BACKGROUND:

Specification No. 1662 was advertised on September 21, 2016, to FURNISH ALL LABOR, EQUIPMENT, AND MATERIALS FOR JANITORIAL SERVICES AT THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT FACILITIES PROJECT, LOCATED IN SAN BERNARDINO, CALIFORNIA.

Water Department sections are currently housed in different locations. Water Utility and Water Reclamation originally utilized in-house janitorial services until retirements occurred at different times, and then outsourced the work to individual vendors. Customer Service still utilizes Facilities Maintenance at City Hall, while the leased facility at 444 West Rialto Avenue uses an outsourced vendor, as does the Administration building at 397 Chandler Place.

Specification No. 1662 was issued for a contractor to provide janitorial services for the maintenance of these multiple locations which include two (2) administration buildings, nine (9) buildings located at the Water Reclamation Plant, and three (3) buildings located at the Water Utility Yards. Cleaning services are to be conducted five (5) days per week at each location under a bi-annual contract.

Specifications were provided to contractors through newspapers and the automated PlanetBids process. The two bids received and opened on November 2, 2016, as follows:

Agenda Item 6

Subject: **AWARD OF CONTRACT – JANITORIAL SERVICES AT THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT FACILITIES SPECIFICATINO NO. 1662**

BIDDERS NAME	LOCATION	LUMP SUM PER ANNUM	SUBS LISTED	BOND/ CHECK
AVALON BUILDING MAINTENANCE OF THE INLAND EMPIRE	SAN BERNARDINO	$76,560.00	NO	CHECK
LEWHALL MAINTENANCE INC.	LITTLEROCK	$214,500.00	NO	BOND

All bidders submitted the appropriate bid bond with their proposal.

FUNDING SOURCE:

The funding source for this project is the FY 2016/2017 Operations and Maintenance Budget. The fourteen (14) sites individually charge monthly maintenance to their operations and maintenance accounts.

RECOMMENDATION:

Staff recommends that the Board of Water Commissioners make the following motion:

- Accept the bid of Avalon Building Maintenance of the Inland Empire, as the lowest responsive, responsible bidder and award a contract in the amount of SEVENTY SIX THOUSAND FIVE HUNDRED SIXTY AND 00/100 DOLLAS ($76,560.00) PER ANNUM to provide janitorial services for a two (2) year term with two (2) one (1) year options to renew in accordance with Specification No. 1662; and authorize the President and Secretary to execute the contract.

Respectfully submitted,

Robin L. Ohama
Deputy General Manager

Attachments

sdm

City of San Bernardino Municipal Water Department
Bid Results Data Sheet

Chronology			
Specification number:	1662		
Specification Title:	**JANITORIAL SERVICES AT THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT FACILITIES PROJECT**		
Date Advertised:	September 21, 2016		
Where Advertised (Papers, Plan rooms)	Press Enterprise, San Bernardino Sun, BidsOnline Bid Management (PlanetBids)		
Number of specifications sent out:	62		
Number of Addendums:	2		
Date of job walk:	October 5, 2016		
Number of contractors present:	7		
Total number of bids received:	2		
Number of bidders not responding:	5		
Date bids opened: (Electronic Bid)	November 2, 2016		
Number of responsive bids:	2		
Bidders Name	Lump Sum Bid Per Annum	Bond/ Check	LOCATION OF BIDDER
AVALON BUILDING MAINTENANCE OF THE INLAND EMPIRE	$76,560.00	CHECK	SAN BERNARDINO
LEWHALL MAINTENANCE INC.	$214,500.00	BOND	LITTLEROCK

SIGNED: Sydney Morrison, Sr. Administrative Coordinator

DATE: November 7, 2016

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT
BOARD OF WATER COMMISSIONERS
STAFF REPORT

NOV 29 2016

TO: Stacey R. Aldstadt, General Manager

FROM: Terri A. Willoughby, Director of Finance

SUBJECT: **PRESENTATION OF THE RESULTS OF THE FISCAL YEAR 2015-16 AUDIT AND COMPREHENSIVE ANNUAL FINANCIAL REPORT; DAVIS FARR LLP**

DATE: November 28, 2016

BACKGROUND:

On December 6, 2016, Jennifer Farr, Partner in the firm of Davis Farr LLP, will present and distribute to the Board of Water Commissioners the annual audit report for the City of San Bernardino Municipal Water Department for the fiscal year ended June 30, 2016. The auditors' opinion is unqualified and represents our conformity with generally accepted accounting principles.

FISCAL IMPACT:

There is no fiscal impact associated with this item.

RECOMMENDATION:

Staff recommends the Board of Water Commissioners make the following motion:

- Approve the annual audit and financial report for the City of San Bernardino Municipal Water Department for the fiscal year ended June 30, 2016.

Respectfully submitted,

Terri A. Willoughby
Director of Finance

Agenda Item: 7

COMPREHENSIVE ANNUAL FINANCIAL REPORT OF THE CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT, A DEPARTMENT OF THE CITY OF SAN BERNARDINO, CALIFORNIA

FOR THE FISCAL YEAR ENDED JUNE 30, 2016

City of San Bernardino Municipal Water Department
Comprehensive Annual Financial Report
Fiscal Year Ending June 30, 2016

Table of Contents

	Page No.
Introductory Section:	
Letter of Transmittal	i
Organizational Chart	vii
Financial Section:	
Independent Auditor's Report	1
Management's Discussion and Analysis	5-10
Basic Financial Statements:	
Statement of Net Position	12-13
Statement of Revenues, Expenses and Changes in Net Position	14
Statement of Cash Flows	15-16
Notes to the Basic Financial Statements	17-46
Statistical Section:	
Changes in Net Position – Combined Funds	49
Changes in Net Position – Water Fund	50
Changes in Net Position – Sewer Fund	51
Net Position by Component – Combined	52
Net Position by Component – Water Fund	53
Net Position by Component – Sewer Fund	54
Water Fund Revenue by Type	55
Sewer Fund Revenue by Type	56
Water Fund Expenses by Type	57
Sewer Fund Expenses by Type	58
Water Fund Debt Service Coverage	60
Sewer Fund Debt Service Coverage	61
Demographic Statistics	63
Major Employers	64
Authorized Positions History	65
Water Rates: Minimum Monthly Charge	67
Water Connections and Revenues by User Types	68
Water Rates – Elevation Charges per HCF	69
Top Ten Water Consumers	70
Sewage Treatment Rate History	71
Sewage Treatment Connections and Revenue by User Type	72
Top Ten Sewage Treatment Customers	73

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

BOARD OF WATER COMMISSIONERS

TONI CALLICOTT
President

Commissioners
JUDITH VALLES
LOUIS A. FERNANDEZ
WAYNE HENDRIX
DAVID E. MLYNARSKI

STACEY R. ALDSTADT
General Manager
ROBIN L. OHAMA
Deputy General Manager
MIGUEL GUERRERO, P.E.
Director of Water Utility
JOHN A. CLAUS
Director of Water Reclamation
JENNIFER SHEPARDSON
Director of Environmental &
Regulatory Compliance
TERRI WILLOUGHBY
Director of Finance

"Trusted, Quality Service since 1905"

December 1, 2016

Members of the Board of Water Commissioners
San Bernardino Municipal Water Department

Introduction:

State law requires that every general purpose government publish within six months of the close of each fiscal year a complete set of audited financial statements. This report is published to fulfill that requirement for the San Bernardino Municipal Water Department ("Department") for the fiscal year ended June 30, 2016.

Management assumes full responsibility for the completeness and reliability of the information contained in this report, based upon a comprehensive framework of internal control that it has established for this purpose. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

Davis Farr LLP has issued an unqualified ("clean") opinion on the Department's financial statements for the year ended June 30, 2016. The independent auditor's report is located at the front of the financial section of this report.

Management's discussion and analysis ("MD&A") immediately follows the independent auditor's report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

Profile of the Department:

The San Bernardino Municipal Water Department and the Board of Water Commissioners ("Board") were established on May 8th, 1905 by the Mayor and Common Council of San Bernardino in accordance with the provisions specified in the City charter. The Board assembled for the first time on May 16th, 1905 to meet the water supply needs of the community by providing trusted, quality service to our customers. This service has grown through the years to include: water supply, water reclamation, geothermal heating supply, and administrative support for our growing community.

300 North "D" Street, San Bernardino, California 92418 P.O. Box 710, 92402 Phone: (909) 384-5141
FACSIMILE NUMBERS: Administration: (909) 384-5215 Engineering: (909) 384-5532 Customer Service: (909) 384-7211
Corporate Yards: (909) 384-5260 Water Reclamation Plant: (909) 384-5258

The first water distribution system of San Bernardino included water supply for approximately six thousand citizens within a one square mile service area. In contrast, the water supply distribution network now encompasses over 40,000 service connections including 550 miles of water mains. Although the number of connections has increased during the past one hundred years, our commitment to providing trusted, quality service remains the same.

The Department has operated the Water Reclamation Plant (WRP) since 1973. The WRP is a33 million gallons per day (MGD) Regional Secondary Treatment facility that provides trusted, quality wastewater treatment services for the City of San Bernardino, City of Loma Linda, East Valley Water District, San Bernardino International Airport, Patton State Hospital, and unincorporated areas of San Bernardino County. The WRP serves about 89,000 customers, of which 57,000 are located within the City's boundaries.

The San Bernardino service area receives the majority of its water supply from an underground aquifer called Bunker Hill Basin which is concentrated at the Northwestern end of the city. The water contained in the Bunker Hill Basin is replenished with rain and snowmelt that filters through our local San Bernardino Mountains. This local water supply ensures that the customers of the San Bernardino Municipal Water Department receive high quality, inexpensive water as compared to other communities. Many other communities in Southern California must import their water supplies from remote locations via the Colorado River and Northern California pipelines. Many water supplies imported from distant locations can be impacted by certain man-made and natural contaminants as the water is transported to the customer.

The Department is committed to providing trusted, quality service to our customers as we provide water supply, water reclamation, geothermal heating, and administrative services to our community.

Fiscal Management:

The Board annually adopts an operating and capital budget prior to the new fiscal year. The budget authorizes and provides the basis for reporting and control of financial operations and accountability for the Department's functions, including the Water and Sewer Funds. The budget and reporting treatment applied to a fund is consistent with the accrual basis of accounting and the financial statement basis. Each year the Department adopts a balanced budget.

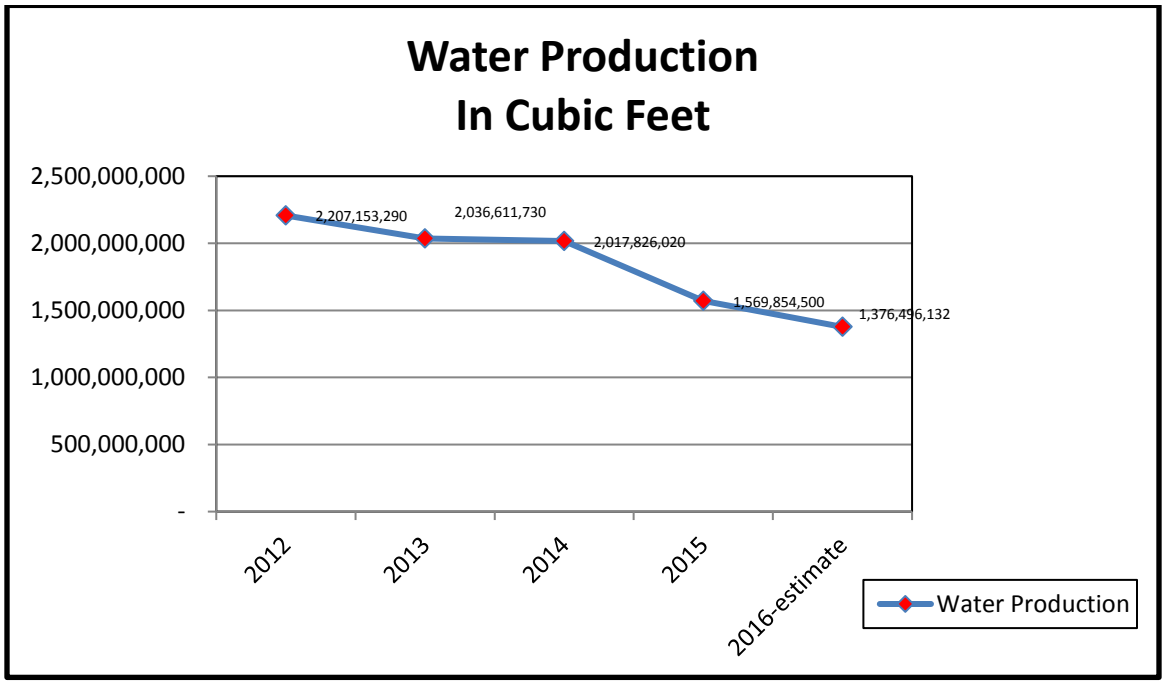
Local Economy:

The Department's offices are located in the City of San Bernardino in San Bernardino County. According to the California Department of Finance, San Bernardino's population as of January 1, 2016 was 215,491. San Bernardino's local economy has been affected by the recent recession, both to a greater extent and for a longer period than surrounding cities. This has affected the Department as increased residential and commercial vacancies have led to a declining customer base. However, as the local real estate and employment markets improve, this customer base should begin to recover. The City's unemployment rate is currently 7.5%, down from 7.6% in the prior year and 9.4% two years prior. The unemployment rate for San Bernardino County reflects a similar improvement, with a rate of 6.4%. Local Economists also project continued improvement in the labor market and are forecasting that the region's unemployment rate will drop to 6.1% by the end of 2020.

California's water supply continues to be a concern due to projected population increases and dwindling supplies from traditional sources. The Department has expanded and will continue to expand its conservation efforts in order to respond to the state-wide drought emergency. Department staff members continue to seek various methods to decrease its dependence on imported water and to increase water source reliability, including increasing production of recycled water. On January 17, 2014, Governor Edmund G. Brown Jr. proclaimed a State of Emergency related to the drought conditions in California and formed the Drought Task

Force. On April 1, 2015, Governor Brown issued an executive order mandating a statewide 25% reduction for urban water suppliers. On May 5, 2015, the State Water Resources Control Board adopted an emergency regulation which assigned a conservation standard to each urban water supplier. The conservation standard assigned to the Department was 28%. In turn, the Department's Board of Water Commissioners declared that Stage IIA, Extreme Mandatory Restrictions were in effect. These restrictions imposed a 28% reduction in water usage and assess financial penalties on usage in excess of these amounts. Through May of 2016, the Department achieved a 25% reduction.

In May 2016, the State Water Resources Control Board adopted a revised emergency water conservation regulation which required local agencies to develop conservation standards based on the agencies' particular circumstances rather than a mandatory state conservation percentage. It allowed water suppliers to self-certify their own conservation standard based on supply and demand from previous years, and extended the emergency regulation through February 2017. In accordance with this latest emergency regulation, the Department's conservation requirement is now set at 15%.



Long Term Financial Planning:

The Department's financial plan includes the establishment of reserve funds in accordance with the Department's adopted Reserve Policy. Reserve funds are established to ensure the Department's financial stability and to have sufficient funding available to meet its operating, capital and debt service cost obligations. The Department has committed to the following funds in its Reserve Policy, adopted by the Board in February 2013.

- Operating Reserve: This reserve is established to ensure adequate cash flow is available to meet day-to-day expenses. The target balance is 45 days of the operating expenses budgeted for each respective fund.

- Rate Stabilization Reserve: This reserve is established to offset revenue risk associated with low service demands years. The minimum target balance for the Water Fund is 20% of budgeted water sales. The minimum target balance for the Sewer Fund is 10% of budgeted sewer sales.

- Emergency Replacement Reserve: The purpose of this reserve was to minimize the impact of unforeseen capital asset and operating expenses. The target balance for the Water Fund is 2% of the total recorded value of capital assets as of the previous fiscal year. The target balance for the Sewer Fund is 3% of the total recorded value of capital assets as of the previous fiscal year.

- Capital Replacement Reserve: The Capital Replacement Reserve was set up in order to provide funding in support of the Department's capital program. The basis for calculating the target balance for this reserve is a rolling five-year average of the Department's Capital Improvement Program projects, excluding those with external funding. The target balance will be assessed on an annual basis as part of the budgeting process.

Debt Administration:

The Department's outstanding debt as of June 30, 2016 consists of four Notes Payable in the Water Fund, and one Note Payable in the Sewer Fund, as shown in the table below:

Water Fund Long-Term Debt Activity	
Year of Issuance/Description	**Use of Proceeds**
2002 California Infrastructure & Economic Development Bank (CIEDB) Note	Funding for transmission mains, booster Stations and a reservoir.
2007 California Infrastructure & Economic Development Bank (CIEDB) Note	Funding for booster stations and transmission mains in the Verdemont area.
2012 California Infrastructure & Economic Development Bank (CIEDB) Note	Funding for the construction of the 12 million gallon Ogden Reservoir and pipeline improvements.
2012 San Bernardino Valley Municipal Water District Note	Funding for the purchase of real property.

Sewer Fund Long-Term Debt Activity	
Year of Issuance/Description	**Use of Proceeds**
2015 San Bernardino Valley Municipal Water District Note	Funding for UV System Rehabilitation for the San Bernardino/Colton Rapid Infiltration Extraction (RIX) project

Relevant Financial Policies:

Internal Control Structure

Department management is responsible for the establishment and maintenance of the internal control structure that ensures that the assets of the Department are protected from loss, theft or misuse. The internal control structure also ensures that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The Department's internal control structure is designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of a control should not exceed the benefits likely to be derived and (2) the valuation of costs and benefits requires estimates and judgments by management.

Major Initiatives and Key Values:

The activities of the Board and staff at the Department are driven by our key value statements as outlined below:

1. Provide the highest level of customer service to our community.
2. Establish fair and equitable rates.
3. Provide the highest quality of water and wastewater services.
4. Provide responsible stewardship of our resources and our environment.
5. Require ethical business practices.
6. Promote staff development.

Acknowledgements:

Preparation of this report was accomplished by the combined efforts of Department staff. We appreciate the dedicated efforts and professionalism that these staff members contribute to the service of the Department's customers. The contributions made by Susan Justice, Principal Accountant, and Michelle Honis and Jennifer Francis, Senior Accountants, deserve special recognition. We would also like to thank and recognize the members of the Board for their continued support in planning and implementation of the Department's fiscal policies.

Respectfully submitted,

Robin L. Ohama, Deputy General Manager

Terri A. Willoughby, Director of Finance

City of San Bernardino Municipal Water Department

Mayor of the City of San Bernardino
R. Carey Davis

Board of Water Commissioners
Toni Callicott, President
David E. Mlynarski, Commissioner
Dr. Louis A. Fernandez, Commissioner
Wayne Hendrix, Commissioner
Dr. Judith Valles, Commissioner

Administration
Stacey R. Aldstadt, General Manager
Robin L. Ohama, Deputy General Manager
Miguel Guerrero, Director of Water Utilities
John A. Claus, Director of Water Reclamation
Terri Willoughby, Director of Finance

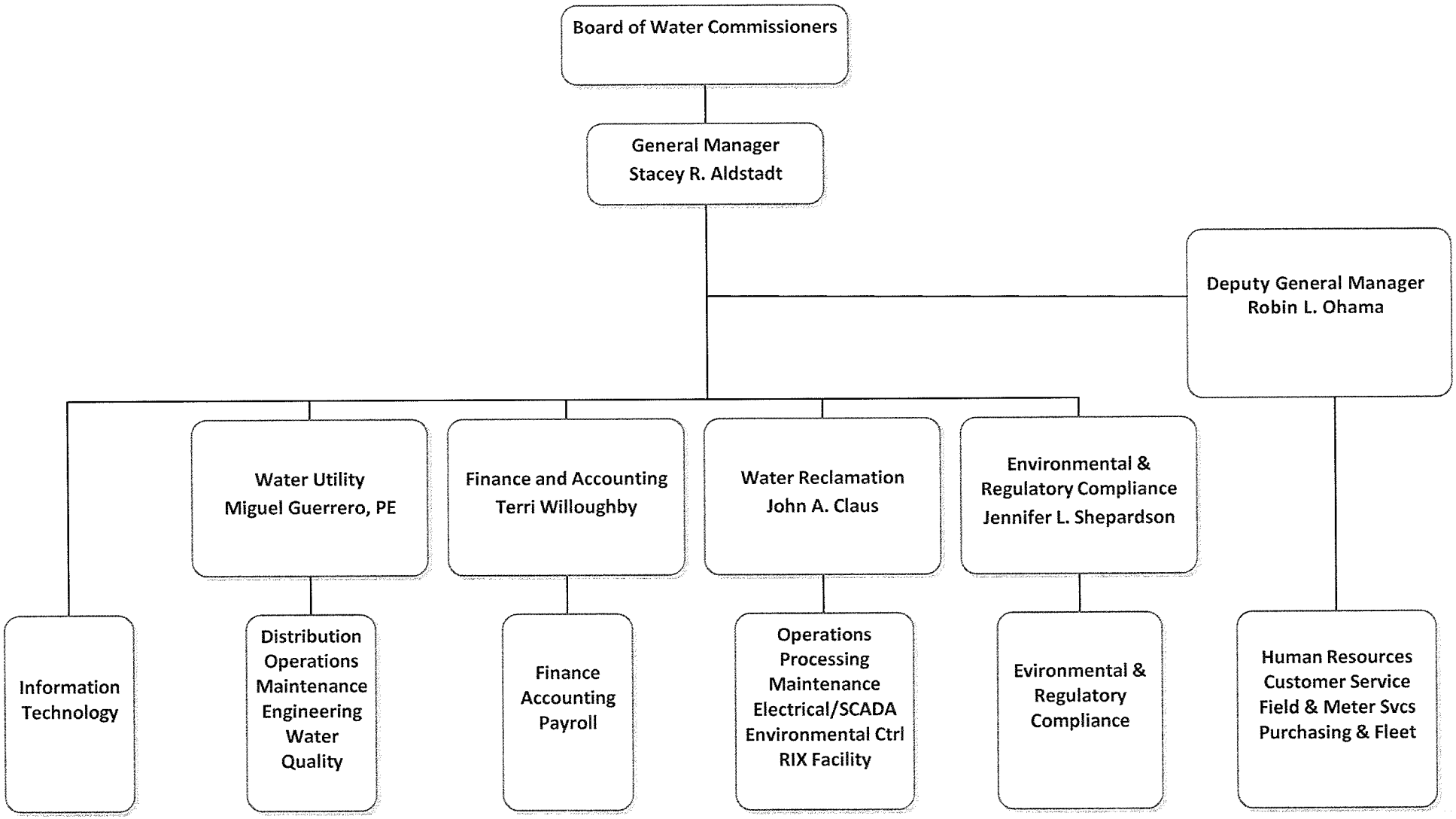
Mission Statement

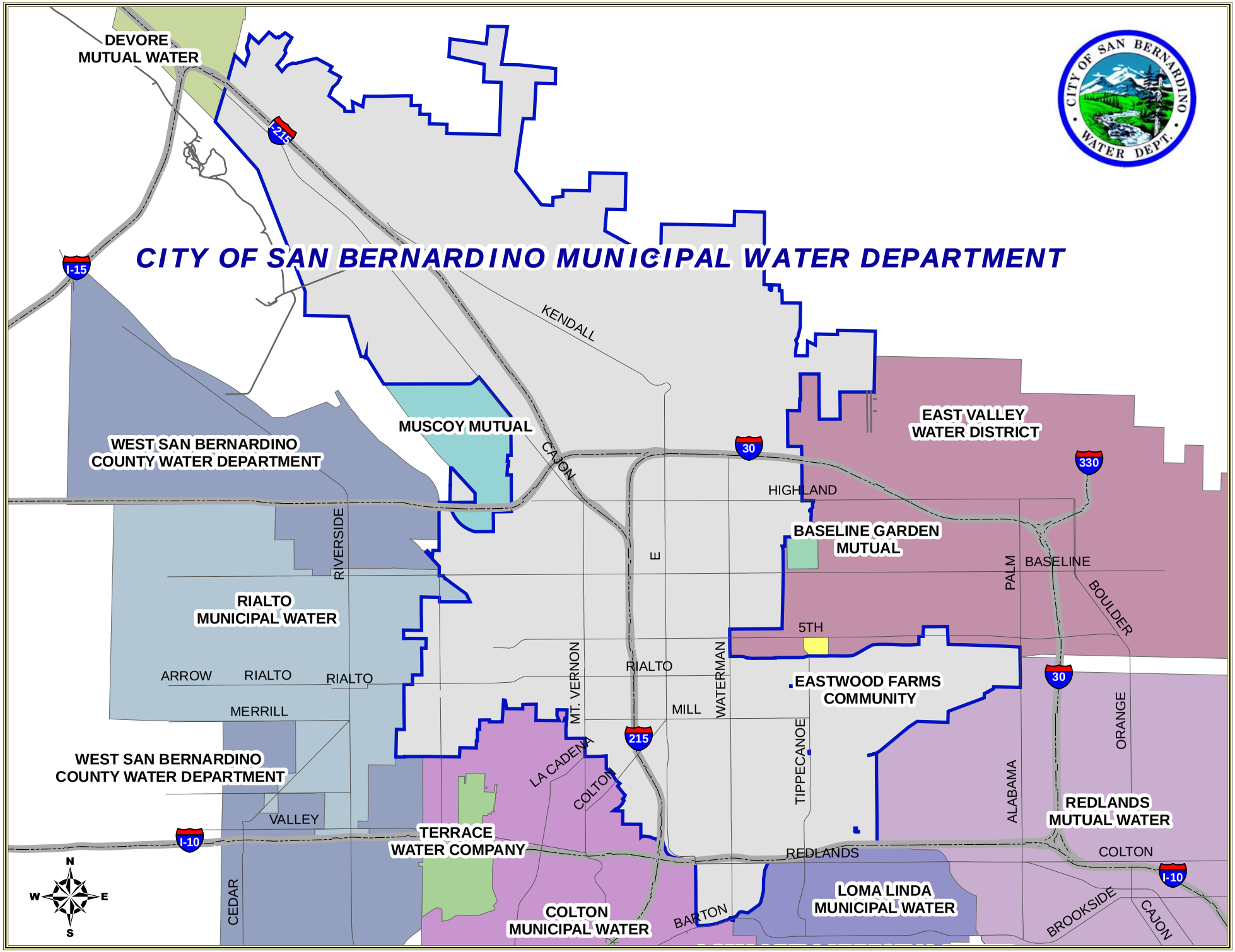
To meet our customer's needs by providing high-quality service in water supply, water reclamation and geothermal heating in the most professional and cost-effective manner possible.

Organization

The City of San Bernardino Municipal Water Department was formed in 1905 under the Charter of the City of San Bernardino. The Department is governed by the Board of Water Commissioners who are appointed by the Mayor of the City of San Bernardino. The Charter gives the Board of Water Commissioners semi-autonomous authority to govern the Department independent of the City Council. The Department operates two enterprise funds: the Water Utility Enterprise Fund and the Sewer Utility Enterprise Fund. Water service encompasses the City, with the exception of the east end, which is served by the East Valley Water District. Sewer service encompasses all of the City of San Bernardino, the City of Loma Linda, the former Norton Air Force Base, Patton State Hospital and portions of the areas serviced by East Valley Water District.

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
ORGANIZATION




CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
CITY OF SAN BERNARDINO WATER DEPT.
DEVORE MUTUAL WATER
WEST SAN BERNARDINO COUNTY WATER DEPARTMENT
MUSCOY MUTUAL
EAST VALLEY WATER DISTRICT
BASELINE GARDEN MUTUAL
RIALTO MUNICIPAL WATER
EASTWOOD FARMS COMMUNITY
WEST SAN BERNARDINO COUNTY WATER DEPARTMENT
TERRACE WATER COMPANY
COLTON MUNICIPAL WATER
LOMA LINDA MUNICIPAL WATER
REDLANDS MUTUAL WATER
KENDALL
CAJON
HIGHLAND
BASELINE
5TH
RIALTO
ARROW
MERRILL
MILL
VALLEY
REDLANDS
COLTON
BARTON
BROOKSIDE
RIVERSIDE
E
MT. VERNON
WATERMAN
TIPPECANOE
LA CADENA
PALM
BOULDER
ALABAMA
ORANGE
CEDAR
I-15
I-10
215
30
330
N
S
E
W

Davis Farr LLP
2301 Dupont Drive | Suite 200 | Irvine, CA 92612
Main: 949.474.2020 | Fax: 949.263.5520

Board of Water Commissioners
Municipal Water Department of the City of San Bernardino
San Bernardino, California

Independent Auditor's Report

Report on the Financial Statements

We have audited the accompanying financial statements of each major fund of the Municipal Water Department of the City of San Bernardino, California ("Department"), as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the Department's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of each major fund of the Municipal Water Department of the City of San Bernardino, California, as of June 30, 2016, and the changes in its financial position and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in Note 1, the financial statements of the Municipal Water Department of the City of San Bernardino ("Department") are intended to present the financial position, the changes in financial position and cash flows of only that portion of each major fund of the City of San Bernardino, California that are attributable to the transactions of the Department. They do not purport to, and do not, present fairly the financial position of the City of San Bernardino as of June 30, 2016, the changes in its financial position, or its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

On August 1, 2012, the City of San Bernardino filed a petition under Chapter 9 of the United States Bankruptcy Code seeking to adjust the timing and amount of the payments associated with the City's obligations. As discussed in note two to the financial statements, there is considerable uncertainty associated with this process and the effects of this process upon the Department are not known at this time.

As described further in note 3 to the financial statements, during the year ended June 30, 2016, the Department implemented Governmental Accounting Standards Board (GASB) Statement No. 72. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the *management's discussion and analysis* be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Department's basic financial statements. The *introductory section* and the *statistical section* are presented for purposes of additional analysis and are not a required part of the basic financial statements. The *introductory* and the *statistical sections* have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 1, 2016 on our consideration of the Department's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Department's internal control over financial reporting and compliance.

Davis Farr LLP

Irvine, California
December 1, 2016

PAGE INTENTIONALLY LEFT BLANK

The City of San Bernardino's Municipal Water Department (Department) is a water and sewer treatment utility responsible for delivering high quality, economically priced water and sewer treatment service to a quarter of a million customers in and around the City of San Bernardino, California. This section of the Department's annual financial report presents management's analysis of the Department's financial performance during the fiscal year that ended on June 30, 2016. Please read it in conjunction with the basic financial statements, which follow this section. **All amounts in the Management's Discussion and Analysis within text areas are in thousands unless otherwise noted.**

Financial Highlights

New significant Accounting Standards implemented. In fiscal year 2015-16, the Department adopted one new statement of financial accounting standards issued by the Government Accounting Standards Board (GASB). Statement No. 72, "*Fair Value Measurement and Application,"* (Statement) defines fair value and describes how fair value should be measured, what assets and liabilities should be measured at fair value, and what information about fair value should be disclosed in the notes to the financial statements. The Department implemented this Statement in the fiscal year ended June 30, 2016.

Other highlights:

- The Department's overall net position increased by $8.4 million.
- Operating revenues decreased by slightly more than 9.42% from the prior year, primarily due to reduced consumption in response to mandated drought-related conservation measures.
- Operating expenses decreased $1.8 million, or 3% from the prior fiscal year.
- Net income/loss before capital contributions decreased by $2.4 million, primarily due to decreased water revenues, as noted above.
- The Department's current ratio (the ability to pay short-term obligations) was 3.66.
- Cash available (the ability to cover current expenses with cash) was 329 days.

Overview of the Financial Statements

The discussion and analysis are intended to serve as an introduction to the Department's basic financial statements. The Department's basic financial statements are comprised of two components: the Financial Statements and the Notes to the Basic Financial Statements. This report also contains other supplementary information in addition to the basic financial statements themselves. Information providing citywide financial results is available in the City's Comprehensive Annual Financial Report.

Required Financial Statements

The financial statements of the Department report information about the Department using accounting methods similar to those used by private sector companies. These statements offer short-term and long-term financial information about its activities. The Statement of Net Position (pages 12-13) includes all of the Department's investments in resources (assets) and the obligations to creditors (liabilities). It also provides the basis for evaluating the capital structure of the Department and assessing the liquidity and financial flexibility of the Department. All of the current year's revenues and expenses are accounted for in the Statement of Revenues, Expenses and Changes in Net Position. (page 14) This statement measures the success of the Department's operations over the past year and can be used to determine whether the Department has successfully recovered all its costs through its user fees and other charges, profitability, and credit worthiness. The final required financial statement is the Statement of Cash Flows (pages 15-16). The primary purpose of this statement is to provide information about the Department's cash receipts and cash payments during the reporting period. The statement reports cash receipts, cash payments, and net changes in cash resulting from operations,

investing, and financing activities and provides answers to such questions as where did cash come from, what was cash used for, and what was the change in cash balance during the reporting period.

Financial Analysis of the Department

Our analysis of the Department begins on page 12 of the financial statements. One of the most important questions to ask about the Department's finances is "Whether the Department, as a whole, is better off or worse off as a result of the year's activities?" The Statement of Net Position, and the Statement of Revenues, Expenses and Changes in Net Position report information about the Department's activities in a way that will help answer this question. These two statements report the net position of the Department and changes in them. Measuring the change in the Department's net position - the difference between assets and liabilities - is one way to measure financial health or financial position. Over time, increases or decreases in the Department's net assets are indications of whether its financial health is improving or deteriorating. However, one will need to consider other non-financial factors such as changes in economic conditions, population growth, zoning and new or changed government legislation.

Water Utility Fund

To begin our analysis, a summary of the Water Utility Fund's Statement of Net Position is presented in Table A-1.

TABLE A-1
Condensed Statement of Net Position - Water Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Current and noncurrent assets	$ 69,427	$ 78,876	$ (9,449)	-11.98%
Capital assets	189,100	188,080	1,020	0.54%
Total assets	258,527	266,956	(8,429)	-3.16%
Deferred outflows of resources	2,057	1,698	358	
Current liabilities	8,345	12,730	(4,385)	-34.45%
Noncurrent liabilities	97,828	98,612	(784)	-0.80%
Total liabilities	106,173	111,342	(5,169)	-4.64%
Deferred inflows of resources	2,337	5,501	(3,164)	
Net investment in capital assets	169,731	166,963	2,768	1.66%
Restricted	-	-	-	0.00%
Unrestricted	(17,658)	(15,153)	(2,505)	16.53%
Total net position	$ 152,073	$ 151,810	$ 263	0.17%

As can be seen from the table above, the Water Utility net position increased .17%, or $263 to $152,073 in fiscal year 2016. The net investment in capital assets increased $2.8 million in fiscal year 2016 due to the completion of capital projects within the period.

TABLE A-2
Condensed Statement of Revenues, Expenses and Changes in Net Position - Water Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Operating revenue	$ 30,002	$ 33,121	$ (3,119)	-9.42%
Capital contributions	2,812	3,905	(1,093)	-27.99%
Other nonoperating revenue	2,390	2,872	(482)	-16.79%
Total revenues	35,204	39,898	(4,694)	-11.77%
Operating expenses	$ 34,834	$ 35,505	(670)	-1.89%
Nonoperating expenses	107	169	(62)	-36.91%
Total expenses	34,941	35,674	(733)	-2.05%
Change in net position	263	4,225	(3,962)	-93.78%
Net position, beginning balance	151,810	175,525	(23,715)	-13.51%
Prior period adjustment	-	(27,940)	27,940	N/A
Total net position	$ 152,073	$ 151,810	$ 263	0.17%

Total revenues decreased by 12%, or $4.7 million, primarily due to decreased water revenues from the continuation of conservation efforts. Total expenses decreased 2% due to prudent cost control measures adopted in response to the expected decline in revenues.

TABLE A-3
Capital Assets - Water Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Land and easements	$ 5,654	$ 5,654	$ -	0.00%
Construction in progress	3,932	3,523	409	11.61%
Wells and pumping	99,444	98,173	1,271	1.29%
Distribution	151,104	146,681	4,423	3.02%
Plant and facilities	3,648	3,222	426	13.23%
Other capital assets	15,636	15,827	(190)	-1.20%
Total capital assets	279,419	273,079	6,340	2.32%
Less: accumulated depreciation	(90,319)	(84,999)	(5,320)	6.26%
Total capital assets, net	$ 189,100	$ 188,080	$ 1,020	0.54%

Total capital assets increased $1.0 million in fiscal year 2016. Approximately $4.2 million in construction in progress was completed and placed in service during the fiscal year. Major project completions include the Sheridan Road Main Replacement Project and the North Park Boulevard & University Tract 10773 Project. Additional information on capital assets is presented in Note 4 of the Notes to the Basic Financial Statements.

TABLE A-4
Long-term Debt - Water Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Notes payable	$ 19,369	$ 21,117	$ (1,748)	-8.28%
Compensated absences	904	942	(37)	-3.97%
Total long-term debt	$ 20,273	$ 22,058	$ (1,785)	-8.09%

During the year, the Water Utility's long-term debt decreased by $1.8 million which can be attributed to normal debt payments. Additional information on long-term debt is presented in Note 6 of the Notes to Basic Financial Statements.

Sewer Utility Fund

TABLE B-1
Condensed Statement of Net Position - Sewer Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Current and noncurrent assets	$ 57,331	$ 59,627	$ (2,296)	-3.85%
Capital assets	67,139	64,146	2,993	4.67%
Total assets	124,470	123,773	697	0.56%
Deferred outflow of resources	1,551	1,348	2,899	215%
Current liabilities	4,430	8,568	(4,138)	-48.30%
Noncurrent liabilities	20,527	21,015	(489)	-2.32%
Total liabilities	24,957	29,583	(4,627)	-15.64%
Deferred inflow of resources	1,763	4,150	5,913	142%
Net investment in capital assets	65,939	56,090	9,849	17.56%
Restricted	7,814	7,516	298	3.97%
Unrestricted	25,548	27,781	(2,233)	-8.04%
Total net position	$ 99,301	$ 91,387	$ 7,914	8.66%

As can be seen from the table above, the Sewer Utility net position increased $8 million to $99,301 in fiscal year 2016. The primary result of this increase was a decrease in liabilities due to the elimination of debt associated with the Sewer Fund. The net investment in capital assets increased $9.8 million, due to the completion of several long-term capital projects within the period combined with the elimination of debt associated with these projects.

TABLE B-2
Condensed Statement of Revenues, Expenses and Changes in Net Position - Sewer Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Operating revenue	$ 25,411	$ 24,734	$ 676	2.73%
Capital contributions	1,459	1,073	386	36.01%
Other nonoperating revenue	1,060	1,326	(266)	-20.08%
Total revenues	27,930	27,133	796	2.93%
Operating expenses	18,731	19,620	(889)	-4.53%
Nonoperating expenses	1,284	227	1,057	465.17%
Total expenses	20,015	19,847	168	0.85%
Change in net position	7,914	7,286	629	8.63%
Net position, beginning balance	91,387	105,178	(13,791)	-13.11%
Prior period adjustment	-	(21,077)	21,077	100.00%
Total net position	$ 99,301	$ 91,387	$ 7,914	8.66%

During Fiscal Year 2016, total revenues for the Sewer Utility increased 3% from the prior year, while total expenses decreased almost 1% during the same time period.

TABLE B-3
Capital Assets - Sewer Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Land and easements	$ 11,755	$ 12,168	$ (413)	-3.39%
Construction in progress	16,808	13,934	2,874	20.62%
Pumping	3,622	3,192	430	13.46%
Buildings, plants and stores	131,033	129,866	1,167	0.90%
Field and office equipment	5,921	5,866	54	0.93%
Total capital assets	169,138	165,026	4,112	2.49%
Less: accumulated depreciation	(101,999)	(100,880)	(1,119)	1.11%
Total net assets	$ 67,139	$ 64,146	$ 2,993	4.67%

Total capital assets increased by $3 million in fiscal year 2016, with approximately $1.3 million in construction in progress completed and placed in service. Major project completions include the Santa Ana River Interceptor (SARI) Line Pipe Projection project and the rehabilitation of the asphalt at the Water Reclamation Plant. More information relating to capital assets can be found in Note 4 of the Notes to the Basic Financial Statements.

TABLE B-4
Long-term Debt - Sewer Utility
(amounts expressed in thousands of dollars)

	2016	2015	$ Change	% Change
Notes payable	$ 1,200	$ 1,710	$ (510)	-29.81%
Certificates of participation	-	6,346	(6,346)	-100.00%
Compensated absences	328	284	44	15.33%
Total long-term debt	$ 1,528	$ 8,340	$ (6,812)	-81.68%

During the year, the Sewer Utility's long-term debt decreased $6.8 million which can be attributed to both normal debt payments as well as the defeasance of the 1998 Certificates of Participation during the fiscal year. Additional information on long-term debt is presented in Note 6 of the Notes to Basic Financial Statements.

Management Challenges and Opportunities

Economics

The local economy of the Service Area (Service Area) served by the Department has been affected by the recent recession, both to a greater extent and for a longer period than surrounding cities. This has affected the Department as increased residential and commercial vacancies have led to a declining customer base. However, as the local real estate and employment markets improve, this customer base should begin to recover. The City's unemployment rate continues to decline as the economy continues to improve. Local economists also project continued improvement in the labor market and are forecasting that the region's unemployment rate will drop to 6.1% by the end of 2020. The economic outlook for the Service Area looks promising, as the economy is improving regionally which will translate into improved economic conditions for Department customers.

Capital Construction

The Sewer Utility faces an extensive list of compliance-related construction requirements over the next several years, and is also rehabilitating facilities and designing/constructing Primary Influent Flow Equalization. The Water Utility continues to concentrate on retrofitting and upgrading existing facilities to current design standards and Uniform Building Codes (UBC) as well as replacing aging pipelines, wells and plant facilities.

Rates

A three-part water utility rate increase was presented to the Board of Water Commissioners in June 2016, and was approved after the close of the current fiscal year. A three-phase sewer treatment rate increase was approved in September 2015 consisting of increases of 8.5% implemented on October 1, 2015 and July 1, 2016 with an additional 3.25% to be implemented on July 1, 2017. The Department continues to review revenue and expense levels to determine when rate increases will be necessary.

Contacting the Department's Director of Finance

This financial report is designed to provide our customers and creditors with a general overview of the Department's finances and to demonstrate the Department's accountability for the money it receives. If you have questions about this report or need additional financial information, please contact the Department's Director of Finance at (909) 384-5184. For information on the City of San Bernardino's financial statements, please contact the City's finance department at (909) 384-5242.

Basic Financial Statements

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
Statement of Net Position
June 30, 2016

	Water Utility	Sewer Utility	Interfund Eliminations	Total
ASSETS				
Current assets:				
Cash and investments (note 3)	$ 10,486,465	23,276,807	-	33,763,272
Accounts receivable, net	5,857,779	3,178,659	-	9,036,438
Interest receivable	11,494	59,396	-	70,890
Due from other entities	29,929	436,526	-	466,455
Inventory	1,794,883	-	-	1,794,883
Current portion of prepaid expenses	729,891	-	-	729,891
Total current assets	18,910,441	26,951,388	-	45,861,829
Noncurrent assets:				
Prepaid expenses	-	729,664	-	729,664
Investment in joint venture - RIX (note 10)	-	21,413,314	-	21,413,314
Investment in joint venture - PSA (note 10)	-	422,263	-	422,263
Restricted assets:				
Cash and cash equivalents (note 3):				
Restricted for capital-related fees	-	7,814,086	-	7,814,086
Restricted for consent decree (notes 3 & 13)	-	-	-	-
Investments (note 3):				
Restricted for consent decree (note 13)	22,223,052	-	-	22,223,052
Interest receivable - consent decree (note 13)	87,343	-	-	87,343
Prepaid insurance - consent decree (note 13)	28,206,540	-	-	28,206,540
Capital assets (note 4):				
Non-depreciable assets	9,586,423	28,562,968	-	38,149,391
Depreciable assets	269,832,172	140,575,269	-	410,407,441
Less: accumulated depreciation and amortization	(90,318,935)	(101,999,162)	-	(192,318,097)
Total capital assets (net)	189,099,660	67,139,075	-	256,238,735
Total noncurrent assets	239,616,595	97,518,402	-	337,134,997
Total assets	258,527,036	124,469,790	-	382,996,826
DEFERRED OUTFLOW OF RESOURCES				
Deferred pension contributions (note 7)	2,056,532	1,551,419	-	3,607,951
Total deferred outflow of resources	2,056,532	1,551,419	-	3,607,951

(continued on next page)

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
Statement of Net Position, continued
June 30, 2016

	Water Utility	Sewer Utility	Interfund Eliminations	Total
LIABILITIES				
Current liabilities:				
Accounts payable	1,466,630	2,370,588	-	3,837,218
Related parties payable (note 9)	1,570,911	721,511	-	2,292,422
Accrued compensation	760,319	525,699	-	1,286,018
Claims payable (note 11)	1,298,326	246,180	-	1,544,506
Consumer deposits	488,587	-	-	488,587
Current portion of compensated absences (note 6)	723,569	262,255	-	985,824
Current portion of notes payable (note 6)	1,813,782	300,000	-	2,113,782
Accrued interest payable	222,800	3,471	-	226,271
Total current liabilities	8,344,924	4,429,704	-	12,774,628
Noncurrent liabilities:				
Consumer deposits	3,039,610	-	-	3,039,610
Compensated absences (note 6)	180,892	65,564	-	246,456
Unearned revenue - consent decree (note 13)	50,516,936	-	-	50,516,936
Notes payable (note 6)	17,554,880	900,000	-	18,454,880
OPEB obligation (note 8)	932,476	246,614	-	1,179,090
Net pension liabilities (note 7)	25,603,182	19,314,681	-	44,917,863
Total noncurrent liabilities	97,827,976	20,526,859	-	118,354,835
Total liabilities	106,172,900	24,956,563	-	131,129,463
DEFERRED INFLOW OF RESOURCES				
Deferred inflows - actuarial (note 7)	2,337,436	1,763,329	-	4,100,765
Total deferred inflow of resources	2,337,436	1,763,329	-	4,100,765
NET POSITION				
Net investment in capital assets (note 14)	169,730,998	65,939,075	-	235,670,073
Restricted for capital-related fees (note 14)	-	7,814,086	-	7,814,086
Unrestricted (note 14)	(17,657,766)	25,548,156	-	7,890,390
Total net position	$ 152,073,232	99,301,317	-	251,374,549

See accompanying independent auditor's report and notes to the basic financial statements.

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Statement of Revenues, Expenses and Changes in Net Position

For the year ended June 30, 2016

	Water Utility	Sewer Utility	Interfund Eliminations	Total
Operating revenues:				
Charges for services	$ 29,388,782	25,030,569	-	54,419,351
Other operating revenues	613,089	380,171	(35,961)	957,299
Total operating revenues	30,001,871	25,410,740	(35,961)	55,376,650
Operating expenses				
Administration and customer service	6,815,967	2,434,748	-	9,250,715
Utility administration	600,025	706,430	-	1,306,455
Plant operations	6,907,732	9,163,720	-	16,071,452
Maintenance	1,978,534	2,874,352	(35,961)	4,816,925
Environmental control	-	636,563	-	636,563
Distribution	4,499,129	-	-	4,499,129
Engineering and water quality control	2,326,551	464,554	-	2,791,105
General, administration and overhead	5,897,093	1,158,630	-	7,055,723
Depreciation and amortization	5,809,331	1,292,426	-	7,101,757
Total operating expenses	34,834,362	18,731,423	(35,961)	53,529,824
Operating income (loss)	(4,832,491)	6,679,317	-	1,846,826
Nonoperating revenues (expenses)				
Investment income	63,566	658,456	-	722,022
Rental income	134,845	41,498	-	176,343
Noncapital grant funds	1,696,219	-	-	1,696,219
Share of joint venture income (loss)	-	(1,116,078)	-	(1,116,078)
Interest expense and fiscal charges	(106,698)	(167,795)	-	(274,493)
Other	495,298	359,800	-	855,098
Total nonoperating revenues (expenses)	2,283,230	(224,119)	-	2,059,111
Net income (loss) before capital contributions	(2,549,261)	6,455,198	-	3,905,937
Capital contributions:				
Acquisition fees	361,030	-	-	361,030
Capacity fees	2,441,162	1,277,397	-	3,718,559
EPA grants	10,000	-	-	10,000
Other capital restricted fees	-	181,736	-	181,736
Total capital contributions	2,812,192	1,459,133	-	4,271,325
Change in net position	262,931	7,914,331	-	8,177,262
Net position, beginning of year	151,810,301	91,386,986	-	243,197,287
Net position, end of year	$ 152,073,232	99,301,317	-	251,374,549

See accompanying independent auditor's report and notes to the basic financial statements.

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
Statement of Cash Flows
For the year ended June 30, 2016

	Water Utility	Sewer Utility	Interfund Eliminations	Total
Cash flow from operating activities:				
Cash received from customers	$ 30,749,151	24,422,913	-	55,172,064
Rental income	134,845	41,498	-	176,343
Nonoperating miscellaneous revenue (expenses)	515,764	359,800	-	875,564
Cash paid to employees for services	(10,081,714)	(6,329,020)	-	(16,410,734)
Cash paid to suppliers of goods and services	(24,220,595)	(8,936,848)	-	(33,157,443)
Cash paid to RIX joint venture operations	-	(2,368,133)	-	(2,368,133)
Net cash provided by operating activities	(2,902,549)	7,190,210	-	4,287,661
Cash flow from noncapital financing activities:				
Cash paid to RIX joint venture (capital)	-	(641,578)	-	(641,578)
Consent Decree insurance drawdowns	1,696,219	-	-	1,696,219
Net cash provided by noncapital financing activities	1,696,219	(641,578)	-	1,054,641
Cash flow from capital and related financing activities:				
Capital fees received	2,802,192	1,459,133	-	4,261,325
Cash paid to acquire capital assets	(6,849,742)	(4,285,451)	-	(11,135,193)
Loan proceeds	-	1,200,000	-	1,200,000
Principal paid on capital-related debt	(1,747,865)	(8,084,710)	-	(9,832,575)
Interest paid on capital-related debt	(125,267)	(213,714)	-	(338,981)
Grant proceeds	10,000	-	-	10,000
Net cash provided by (used for) capital and related financing activities	(5,910,682)	(9,924,742)	-	(15,835,424)
Cash flow from investing activities:				
Purchase of investments	(18,234,142)	(13,953,642)	-	(32,187,784)
Sales and maturities of investments	17,677,660	20,350,561	-	38,028,221
Interest received	41,907	735,111	-	777,018
Net cash provided by investing activities	(514,575)	7,132,030	-	6,617,455
Net increase (decrease) in cash	(7,631,587)	3,755,920	-	(3,875,667)
Cash and cash equivalents at beginning of year	14,292,091	6,619,012	-	20,911,103
Cash and cash equivalents at end of year	$ 6,660,504	10,374,932	-	17,035,436
Reconciliation of cash and cash equivalents to amounts reported on the statement of net position:				
Cash and investments	$ 10,486,465	23,276,807	-	33,763,272
Restricted cash and cash equivalents:				
Restricted for capital related fees	-	7,814,086	-	7,814,086
Less those not meeting the definition of a cash equivalent	(4,075,961)	(20,715,961)	-	(24,791,922)
Cash and cash equivalents at end of year	$ 6,410,504	10,374,932	-	16,785,436

(continued on next page)

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
Statement of Cash Flows, continued
For the year ended June 30, 2016

	Water Utility	Sewer Utility	Interfund Eliminations	Total
Reconciliation of operating income to net cash provided by (used for) operating activities:				
Operating income (loss)	$ (4,832,491)	6,679,317	-	1,846,826
Depreciation and amortization	5,809,381	1,292,426	-	7,101,807
Nonoperating miscellaneous revenue (expenses)	515,764	359,799	-	875,563
Rental income	134,845	41,498	-	176,343
Adjustments:				
(Increase) decrease in accounts receivable	507,291	(715,968)	-	(208,677)
(Increase) decrease in due from other entities	569,234	(271,858)	-	297,376
(Increase) decrease in inventory	196,430	-	-	196,430
(Increase) decrease in prepaid expenses	(431,980)	91,576	-	(340,404)
(Increase) decrease in deferred pension contributions	(358,411)	(270,380)	-	(628,791)
Increase (decrease) in accounts payable	(3,207,800)	15,249	-	(3,192,551)
Increase (decrease) in related parties payable	(1,084,226)	456,211	-	(628,015)
Increase (decrease) in accrued compensation	(100,237)	54,913	-	(45,324)
Increase (decrease) in compensated absences current portion	(91,623)	34,861	-	(56,762)
Increase (decrease) in compensated absences non-current portion	54,195	8,716	-	62,911
Increase (decrease) in claims payable	84,787	6,507	-	91,294
Increase (decrease) in consumer deposits current portion	(94,758)	-	-	(94,758)
Increase (decrease) in consumer deposits non-current portion	(234,487)	-	-	(234,487)
Increase (decrease) in OPEB obligation	303,581	80,288	-	383,869
Increase (decrease) in net pension liability	2,271,715	1,713,750	-	3,985,465
Increase (decrease) in deferred inflows-actuarial	(3,163,759)	(2,386,695)	-	(5,550,454)
Net cash provided by operating activities	$ (3,152,549)	7,190,210	-	4,037,661

There were no significant noncash investing, capital and financing related activties for the year ended June 30, 2016.

(1) Reporting Entity and Summary of Significant Accounting Policies

A. Organization and Operations of the Reporting Entity

The San Bernardino Municipal Water Department (Department) is governed under the Charter of the City of San Bernardino (City). A Board of Water Commissioners (BOWC) appointed by the Mayor and approved by City Council, has Charter defined powers, with full authority for administration of the water utility and delegated authority for the sewer treatment utility. The Department has served the community since 1905.

B. Basis of Accounting and Measurement Focus

The Department reports its activities as enterprise funds, which are used to account for operations that are financed and operated in a manner similar to a private business enterprise, where the intent of the Department is that the costs (including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges. Revenues and expenses are recognized on the accrual basis. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred, regardless of when the related cash flow takes place.

Operating revenues, such as charges for services (water sales, sewer services and water services) result from exchange transactions associated with the principal activity of the Department. Exchange transactions are those in which each party receives and gives up essentially equal values. Nonoperating revenues, such as property taxes and investment income, result from nonexchange transactions or ancillary activities in which the Department gives (receives) value without directly receiving (giving) equal value in exchange.

When both restricted and unrestricted resources are available for use, the Department uses restricted resources and then unrestricted resources.

The major funds of the Department are described below:

Water Utility Fund – The Water Utility Enterprise Fund (Water Utility) is used to account for the operations of the Department's water system and related revenues.

Sewer Utility Fund – The Sewer Utility Enterprise Fund (Sewer Utility) is used to account for the operations of the City's wastewater treatment system and related revenues. The Sewer conveyance system is under the direction of the City's Public Works Department.

Administrative and engineering services are provided by the Water Utility to the Sewer Utility. Electrical services are provided by the Sewer Utility to the Water Utility.

C. Implementation of GASB Pronouncements

In February 2015, the GASB issued Statement No. 72, Fair Value Measurement and Application. The Standard defines fair value and describes how fair value should be measured, what assets and liabilities should be measured at fair value, and what information about fair value should be disclosed in the notes to the financial statements. The provisions of this Statement are effective for financial statements for periods beginning after June 30, 2016. The Department implemented this Statement in the fiscal year ending June 30, 2016.

D. Financial Reporting

The Department's basic financial statements are presented in conformance with the provisions of Governmental Accounting Standards Board (GASB) Statement No. 34, *"Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments"* (GASB No. 34). This statement established revised financial reporting requirements for state and local governments throughout the United States for the purpose of enhancing the understandability and usefulness of financial reports.

(1) Reporting Entity and Summary of Significant Accounting Policies, continued

D. Financial Reporting, continued

GASB No. 34 and its related GASB pronouncements provide for a revised view of financial information and restructure the format of financial information provided prior to its adoption. A statement of net position replaces the balance sheet and reports assets, liabilities, and the difference between them as net position, not equity. A statement of revenues, expenses and changes in net position replaces both the income statement and the statement of changes in retained earnings and contributed capital. GASB No. 34 also requires that the statement of cash flows be prepared using the direct method. Under the direct method, cash flows from operating activities are presented by major categories.

E. Assets, Liabilities and Net Position

1. Use of Estimates

The preparation of the basic financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and disclosures of contingent assets and liabilities at the date of the financial statements, and the reported changes in net position during the reporting period. Actual results could differ from those estimates.

2. Cash and Investments

For the purpose of the statement of cash flows, cash and cash equivalents include highly liquid investments (including restricted assets) with a maturity of three months or less when purchased.

Investments are reported in the accompanying balance sheet at fair value, except for certain certificates of deposit and investment contracts that are reported at cost as they are not transferable and have terms that are not affected by changes in market interest rates.

Changes in fair value that occur during a fiscal year are recognized as investment income reported for that fiscal year. Investment income includes interest earnings, changes in fair value and any gains or losses realized upon the liquidation of investments.

<u>Fair Value Measurements</u>

Certain assets and liabilities are required to be reported at fair value. The fair value framework provides a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of fair value hierarchy are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly and fair value is determined through the use of models or other valuation methodologies including:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in markets that are inactive;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

(1) Reporting Entity and Summary of Significant Accounting Policies, continued

E. Assets, Liabilities and Net Position, continued

Level 3 - Inputs to the valuation methodology are unobservable and significant to the fair value measurement. These unobservable input reflect the Department's own assumptions about the inputs market participants would use in pricing the asset or liability (including assumptions about risk). These unobservable inputs are developed based on the best information available in the circumstances and may include the Department's own data.

3. Accounts Receivable

Customer or trade receivables are shown net of an allowance for uncollectible accounts based on historical and management estimates. Transactions between funds that are representative of lending or borrowing arrangements outstanding at the end of the fiscal year are referred to as "interfund receivables / payables" or "advances to/from" other funds. All interfund transactions are eliminated for financial reporting.

4. Inventory

Materials and supplies inventory consists primarily of water meters, pipe and pipefittings for construction and repair to the Department's water transmission and distribution system and items necessary for maintenance at the sewer treatment facilities. Inventory is valued at cost using a weighted average method. Inventory items are charged to expense at the time that individual items are withdrawn from inventory or consumed.

Water inventory is stated at its purchase cost using the first in, first out method. Inventory is recorded when purchased and expensed at the time the inventory is consumed.

5. Prepaid Expense and Deposit

Certain payments to vendors reflect costs or deposits applicable to future accounting periods and are recorded as prepaid items in the basic financial statements.

6. Capital Assets

Capital assets acquired or constructed are capitalized at historic cost. Department policy has set the capitalization threshold for reporting capital assets at $5,000 and a life expectancy of at least 3 years. Overhead is capitalized at the rate of 28.9% of labor and benefits, 10% of material and supplies and 2% of significant contracts. Depreciation is recorded on a straight-line basis over the estimated useful lives of the assets as follows:

- Source of supply plant — 8 to 50 years
- Disposal plant and interceptor lines — 35 to 50 years
- Other facilities (shops, leasehold & yards) — 5 to 25 years
- Tools, office equipment & communications — 4 to 20 years
- Computer equipment — 3 to 5 years
- Automotive and fleet equipment — 3 to 15 years

7. Compensated Absences

Department policy is to permit employees to accumulate a limited amount of earned vacation and sick leave. Various negotiation groups have different sell-back and cash out options. Additionally, cash out options upon retirement or death of the employee vary based on the negotiation group. Employees' vacation and sick leave benefits are recognized as a liability of the Department.

(1) Reporting Entity and Summary of Significant Accounting Policies, continued

E. Assets, Liabilities and Net Position, continued

8. Restricted Assets and Amounts Payable from Restricted Assets

Amounts shown as restricted assets have been restricted by bond indentures or are to be used for specified purposes based on contract provisions, such as bonded debt service. Certain liabilities which are currently payable have been classified as current liabilities payable from restricted assets since assets have been restricted for their payment.

9. Pensions

For purposes of measuring the net pension liability, deferred outflows and inflows of resources related to pensions, pension expense, information about the fiduciary net position and additions to/deductions from the fiduciary net position have been determined on the same basis as they are reported by the Department. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

GASB 68 requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation Date (VD)	June 30, 2014
Measurement Date (MD)	June 30, 2015
Measurement Period (MP)	June 30, 2014 to June 30, 2015

10. Deferred Outflows/Inflows

In addition to assets, the Statement of Net Position will sometimes report a separate section of deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents consumption of net position that applies to a future period and so will not be recognized as an outflow of resources (expenses/expenditures) until then. The Department has two items that qualify for reporting in this category: the deferred outflows on pension contributions, and the deferred charges on debt refundings.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period and will not be recognized as inflow of resources (revenue) until that time. The District has one item that qualifies for reporting in this category, deferred inflow – actuarial.

11. Interfund Eliminations

The interfund eliminations column represents entries made to eliminate interfund income and expenditure transactions between the water utility fund and the sewer utility fund for the purposes of consolidated financial statements.

12. Net Position

The financial statements utilize a net position presentation. Net position is categorized as follows:

- **Net Investment in Capital Assets** – This component of net position consists of capital assets, net of accumulated depreciation and reduced by any debt outstanding against the acquisition, construction or improvement of those assets.
- **Restricted Net Position** – This component of net position consists of constraints placed on net position use through external constraints imposed by creditors, grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation.

(1) Reporting Entity and Summary of Significant Accounting Policies, continued

E. Assets, Liabilities and Net Position, continued

- **Unrestricted Net Position** – This component of net position consists of net position that does not meet the definition of *restricted* or *net investment in capital assets*.

13. Capital Contributions

Contributions in aid of construction represent cash and utility plant additions contributed to the Department by property owners or developers desiring services that require capital expenditures or capacity commitment. In accordance with Governmental Accounting Standards Board Statement No. 33, the capital contributions are recorded on the Statement of Revenues, Expenses and Changes in Net position.

14. Budgetary Policies

The Department adopts an annual budget for planning, control, and evaluation purposes. Budgetary control and evaluation are affected by comparisons of actual revenues and expenses with planned revenues and expenses for the period. Encumbrance accounting is not used to account for commitments related to outstanding contracts for construction and services.

(2) City of San Bernardino Bankruptcy

Without reserves and facing a $45.8 million budget deficit, in July of 2012, the City determined that it was no longer able to meet its contractual obligations and declared a fiscal emergency. On August 1, 2012, the City filed a petition under Chapter 9 of the United States Bankruptcy Code in Riverside seeking to adjust its debts. On August 28, 2013, the Bankruptcy Court ruled that the City is eligible for bankruptcy protection.

Based on the California Constitution, precedents established in prior municipal bankruptcies in California, and various legal opinions provided to the Department by special legal counsel and the City Attorney's office, the Department believes that its revenues, derived from ratepayer fees, will be protected from attachment by the City's creditors. Although unlikely, it is possible that the bankruptcy court will make a different determination. The Department's arguments for the protection of its assets from the claims of the City's creditors are set forth in further detail below.

The bankruptcy case seeks the adjustment of the obligations of the City and does not extend to City funds with Federal, State or other restrictions. The Department has continued to operate and use its restricted resources for only the expenses incurred to operate the water system and sewer treatment plants. Debt obligations secured by Department revenues are treated as secured obligations and are not expected to be affected so long as the revenues of the Department are sufficient to meet debt service.

State and federal laws place protections on the revenues of the Department. Section 902(2) of the Bankruptcy Code defines special revenues as, among other things, "receipts derived from the ownership, operation, or disposition of projects or systems of the debtor that are primarily used or intended to be used primarily to provide transportation, utility, or other services, including the proceeds of borrowings to finance the projects or systems." Further, section 928 of the Bankruptcy Code states: "(a) Notwithstanding section 552 (a) of this title and subject to subsection (b) of this section, special revenues acquired by the debtor after the commencement of the case shall remain subject to any lien resulting from any security agreement entered into by the debtor before the commencement of the case"; and "(b) Any such lien on special revenues, other than municipal betterment assessments, derived from a project or system shall be subject to the necessary operating expenses of such project or system, as the case may be."

(2) City of San Bernardino Bankruptcy, continued

Chapter 9 of the Bankruptcy Code does not have a provision for liquidation of assets of the City and distribution of the proceeds to creditors. Additionally, Chapter 9 does not prevent a debtor from borrowing additional funds while under bankruptcy protection. The Tenth Amendment of the United States Constitution and Supreme Court decisions in upholding municipal bankruptcy legislation place severe limitations upon the power of the bankruptcy court in chapter 9 cases.

In addition, at least two aspects of California law place restrictions on the use of revenue of the Department. First, under Articles XIIIC and XIIID of the California Constitution (enacted pursuant to the voter approved Proposition 218), money raised from municipal utility rates must only be used to fund such utility operations, and not to fund general municipal operations. Thus, when the Department charges a water delivery or consumption fee, or rates for wastewater services, and places those monies into its specially segregated Water Fund and Sewer Fund accounts, those charges are considered property-related fees and are subject to the constitutional constraints enacted pursuant to Proposition 218. This has very specific consequences for the amount of money that can be collected, as well as the use to which those funds can be put. Specifically, Cal. Const. Article XIII D section 6(b) states that:

A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements:

> (1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.
>
> (2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
>
> (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
>
> . . .
>
> (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners. (Cal Const, Art. XIII D § 6.)

Put differently, use of fees for general governmental services is prohibited, fees can only be for the service provided, fees cannot exceed the cost of that service, and fees cannot exceed the proportional cost of the service attributable the payer.[1]

[1] *See* League of California Cities, Proposition 218 Implementation Guide (2007 Ed.) at pp. 49-50; *see also Howard Jarvis Taxpayers Ass'n v. City of Roseville* (2002) 97 Cal.App.4th 637, 647-648 [interpreting Art. XIIID, § 6(b) and emphasizing, "[t] he key is that the revenues derived from the fee or charge are required to provide the service, and may be used only for the service."]

(2) City of San Bernardino Bankruptcy, continued

The second relevant aspect of state law is the City's status as a Charter City. Under California law a city charter is "the supreme law of the City," but is still subject to "conflicting provisions in the federal and state Constitutions and to preemptive state law." (*Howard Jarvis Taxpayers Assn. v. City of Roseville* (2003) 106 Cal.App.4th 1178, 1186, citing *Domar Electric, Inc. v. City of Los Angeles* (1994) 9 Cal.4th 161, 170.) The Department was created by and currently operates pursuant to Article IX of the City's Charter, and provides both retail water and sewer service pursuant to the City Charter provisions. Specifically, Article IX, Section 164 of the City Charter provides that the Water Department Board of Commissioners, and not the City Council, " . . shall have power to control and order the expenditure of all money received from sale or use of water, for the defraying of expenses or maintenance and repairs and operation of the water system, and for any expenses for additions to the same; and for supplying the City with water for any and all purposes; *provided that all such money shall be deposited in the treasury of the City to the credit of a fund to be known as the Water Fund, and shall be kept separate and apart from other moneys of the City* . . ." (emphasis added). Consistent with the discussion above, the constitutional requirements under Proposition 218 apply to "counties, cities, cities and counties, *including charter cities* or counties, any special district, or other local or regional governmental entity. (Cal. Const., art. XIIIC, § 1(b), emphasis added.) Courts have routinely held that "[t]here is no question that Proposition 218, as a constitutional initiative, is binding upon charter cities." (*Howard Jarvis Taxpayers Assn. v. City of Roseville* (2003) 106 Cal.App.4th 1178, 1185.) In order to provide for the safety of the Department's liquid assets, the Department established its own bank account and investment portfolio within the City treasury as required by the City Charter. Representatives of the City Treasurer's office and the Water Department are signatories to these accounts. As previously noted, the City Charter specifically grants to the Water Department Board of Commissioners the power to control and order the expenditure of these funds and limits the withdrawal of these funds for the payment of demands authenticated by the Board of Commissioners.

Accordingly, both the City Charter and the California Constitution require that the Department's special revenues collected for water-related services may only be used for expenditures related to those services. Due to these additional state law restrictions, the Department believes that the revenues of the Department (and accumulated assets since those assets were accumulated as a result of collection of revenue) can only be used for Department expenses and obligations.

On October 16, 2013, Bankruptcy Judge Meredith Jury issued an opinion on the City's eligibility for bankruptcy. "…CalPERS submits that the uncontroverted fact that the City's Water Fund had a large cash balance before and after the petition date which the City did not tap to attempt to balance its books is evidence of lack of desire to effect a plan. This argument has no legal legs. It is a matter of California constitutional law that the City may not use funds belonging to the Water Department for general fund purposes. Amendments to the Constitution enacted by Proposition 218 in 1996, which added Articles XIIIC and XIIID, expanded restrictions on local government revenue-raising and imposed limitations on local government use of special fees, including water and sewer fees. C.A. Const. art. XIIIC and XIIID. Article XIIID covers water fees and prohibits the use of such fees for general governmental services, including police, fire and other services. *Bighorn Desert View Water Agency v.*

Verjil, 39 Cal. 4th 205, 216-17 (2006); *Richmond v. Shasta Cmty. Servs. Dist.*, 32 Cal. 4th 409 (2004). Thus, the City was legally prohibited by the California Constitution from using Water Department funds for general fund purposes.

(2) City of San Bernardino Bankruptcy, continued

"Similarly, the City could not have borrowed funds from the Water Department without incurring debt that it could not repay within one year. Article XVI, Section 18 of the Constitution prohibits the City from incurring a debt in any year that exceeds the available revenues of the City for that year without the approval of a two-thirds vote of qualified voters. C.A. Const. art. XVI, § 18. Looking at its dire financial status in July 2012, the City could not reasonably conclude that it would be able to repay to the Water Fund any loans it made within that fiscal year. The Water Fund cash was thereby out of reach to address the City's insolvency and this issue is an outlier to the Court's analysis." (Case No.: RS 6: 12-bk-28006 MJ).

(3) Cash and Investments

Cash and investments are reported in the accompanying statement of net position as follows:

	Water Utility	Sewer Utility	Total
Cash and investments	$10,486,465	23,276,807	33,763,272
Restricted cash and cash equivalents:			
Restricted for capital-related fees	-	7,814,086	7,814,086
Restricted investments:			
Restricted for Consent Decree	22,223,052	-	22,223,052
Total Cash and Investments	$32,709,517	31,090,893	63,800,410

Cash and investments at June 30, 2016 consisted of the following:

	Water Utility	Sewer Utility	Total
Cash on Hand	$ 7,000	200	7,200
Deposits with Financial Institutions	6,403,504	10,374,732	16,778,236
Investments	26,299,013	20,715,961	47,014,974
Total Cash and Investments	$32,709,517	31,090,893	63,800,410

Investments Authorized by the California Government Code and the Department's Investment Policy

The table below identifies the investment types that are authorized by the Department and Consent Decree (see note 13) in accordance with the California Government Code (or the City's investment policy, where more restrictive). The table also identifies certain provisions of the California Government Code (or the City's investment policy, where more restrictive) that addresses interest rate risk, credit risk, and concentration of credit risk. Due to its long-term nature, the Consent Decree has been explicitly exempted from maximum maturity requirements of the California Government Code, which limits maturity of most investments to five years. All other aspects of the Consent Decree investment policy are consistent with the City's investment policy.

(3) Cash and Investments, continued

	Maximum Maturity			
Investment Type*	**Department**	**Consent Decree**	**Maximum % of Portfolio**	**Maximum % of Portfolio**
US treasury	5 years	None	None	None
US agency	5 years	None	None	None
Bankers acceptances	180 days	180 days	40%	40%
Commercial paper	270 days	270 days	25%	25%
Negotiable CDs	5 years	None	30%	30%
Medium-term notes	5 years	None	30%	30%
Money market mutual funds	N/A	N/A	20%	20%
Mortgage pass through	5 years	None	20%	20%
Local Agency Investment Fund	N/A	N/A	40,000,000	40,000,000
Guaranteed investment	N/A	N/A	None	None

Investments Authorized by Debt Agreements

Investments of debt proceeds held by bond trustee are governed by provisions of the debt agreements, rather than the general provisions of the California Government Code or the City's investment policy. Investments authorized for funds held by bond trustee include, U.S. Treasury Obligations, U.S. Government Sponsored Enterprise Securities, the California Local Agency Investment Fund, Guaranteed Investment Contracts, Commercial Paper, Local Agency Bonds, Banker's Acceptance and Money Market Mutual Funds. There are no limitations on the maximum amount that can be invested in one issuer, maximum percentage allowed or the maximum maturity of an investment, except for the maturity of Banker's Acceptance which are limited to one year.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The California Government Code requires that a financial institution secure deposits made by a state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law.

The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure the Department's deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits.

For investment identified herein as held by bond trustee, the bond trustee selects the investment under the terms of the applicable trust agreement, acquires the investment, and holds the investment on behalf of the reporting government.

(3) Cash and Investments, continued

Investment in State Investment Pool

The Department is a voluntary participant in the Local Agency Investment Fund (LAIF) that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. The fair value of the Department's investment in this pool is reported in the accompanying financial statements at amounts based upon the Department's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis. LAIF is not rated by a nationally recognized statistical rating organization, but, as stated previously, it is regulated by the California Government Code, and is therefore exempt from rating requirements.

Interest Rate Risk

Interest rate risk is the possibility that fluctuations in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value will be to changes in market interest rates. One method that the Department uses to manage its exposure to interest rate risk is by purchasing a combination of shorter term and longer term investments and by timing cash flows from maturities so that a portion of the portfolio matures or comes close to maturity evenly over time as necessary to provide requirements for cash flow and liquidity needed for operations.

Information about the sensitivity of the fair values of the Department's investments to market interest rate fluctuations is provided by the following table that shows the distribution of the Department's investments by maturity date:

	Maturities				
Investment Type	**Less than 12 months**	**13-24 months**	**25-60 months**	**More than 60 months**	**Total**
U.S. Agency Securities	$1,505,308	3,551,993	5,315,477	-	10,372,778
U.S. Treasuries	-	526,479	6,079,017	-	6,605,496
Medium Term Corporate Notes	360,428	310,763	1,487,494	-	2,158,685
Asset Backed Securities	-	663,311	681,296	-	1,344,607
Commercial Paper	418,964	-	-	-	418,964
Money Market Funds	555,347	-	-	-	555,347
Local Agency Investment Fund	3,758,310	-	-	-	3,758,310
Consent Decree:					
U.S. Treasuries	-	-	7,924,189	-	7,924,189
U.S. Agency Mortgage Backed Securitie	-	-	-	1,627,183	1,627,183
U.S Agency Collateralized Mortgage Obligations	-	144,618	138,945	1,005,704	1,289,267
U.S. Agency Securities	-	125,495	1,872,417	-	1,997,912
Commercial Paper	796,512	-	-	-	796,512
Corporate Notes	1,455,617	2,393,486	1,704,248	-	5,553,351
Certificates of Deposit	499,940	1,654,910	-	-	2,154,850
Asset Back Securities/Collateralized Mortgage Obligations	-	-	835,252	-	835,252
Money Market Funds	44,534	-	-	-	44,534
Total Investments	$9,394,960	9,371,055	26,038,335	2,632,887	47,437,237

(3) Cash and Investments, continued

Credit Risk

Generally, credit risk is the possibility that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required by (where applicable) the California Government Code, the Department's investment policy, or debt agreements, and the actual rating as of year-end for each investment type.

Investment Type	Minimum Legal Rating	Rating	Total
U.S. Agency Securities	None	AA+	$ 10,372,778
U.S. Treasuries	Exempt	Exempt	6,605,496
Medium Term Corporate Notes	AA-	AAA	2,158,685
Asset Backed Securities	AA	AAA	1,344,607
Commercial Paper	A-1	A-1	418,964
Money Market Funds	AA+	AAA	555,347
Local Agency Investment Fund	N/R	not rated	3,758,310
Consent Decree:			
U.S. Treasuries	No Limit	Exempt	7,924,189
U.S. Agency Mortgage Backed Securities	No Limit	AA+	1,627,183
U.S. Agency Securities	No Limit	AA+	1,997,912
U.S. Agency Collateralized Mortgage Obligation	AA	AA	1,289,267
Corporate Notes	A	AAA	5,553,351
Commercial paper	A-1	A-1	796,512
Certificates of Deposit	A	A-1+	2,154,850
Asset Backed Secuirites/Collateralized Mortgage Obligation	AA	AAA	835,252
Money Market Funds	AA+	AA+	44,534
Total Investments			$ 47,437,237

(3) Cash and Investments, continued

Concentration of Credit Risk

Investments in any one issuer (other than for U.S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of total Department investments are as follows:

Issuer	Investment Type	Reported Amount	Percentage o Investments
Federal National Mortgage Association	U.S. Agency Securities	$2,307,608	5%

Fair Value Measurement

The Department categorizes its fair value investments within the fair value hierarchy established by generally accepted accounting principles. The Department has the following recurring fair value measurements as of June 30, 2016:

	Fair Value Hierarchy			
	Level 1	Level 2	Level 3	Total
U.S. Agency Securities	$ -	12,370,690	-	12,370,690
U.S. Treasuries	14,529,685	-	-	14,529,685
Medium Term Corporate Notes	-	2,158,685	-	2,158,685
Asset Backed Securities	-	1,344,607	-	1,344,607
Commercial Paper	-	1,215,476	-	1,215,476
Local Agency Investment Fund	-	3,758,310	-	3,758,310
U.S. Agency Mortgage Backed Securities	-	1,627,183	-	1,627,183
U.S. Agency Collateralized Mortgage Obligati	-	1,289,267	-	1,289,267
Corporate Notes	-	5,553,351	-	5,553,351
Asset Backed Securities/Collateralized Mortgage Obligations	-	835,252	-	835,252
Total investments	14,529,685	30,152,821	-	44,682,506
Investments not subject to fair value				2,754,731
Total				$47,437,237

(4) Capital Assets

Capital asset activity for the water utility for the fiscal year ended June 30, 2016:

	Balance July 1, 2015	Additions	Deletions/ Transfers	Balance June 30, 2016
Non-depreciable assets:				
Land and easements	$ 5,654,389	-	-	5,654,389
Construction in progress	3,523,057	4,624,967	(4,215,990)	3,932,034
Total non-depreciable assets	9,177,446	4,624,967	(4,215,990)	9,586,423
Depreciable assets:				
Water rights, wells and pumping	98,085,162	1,358,790	-	99,443,952
Distribution system	146,680,635	4,423,474	-	151,104,109
Buildings, plants, and stores	3,544,632	103,058	-	3,647,690
Field and office equipment	15,591,107	555,442	(510,128)	15,636,421
Total depreciable assets	263,901,536	6,440,764	(510,128)	269,832,172
Less: accumulated depreciation				
Water rights, wells and pumping	(33,775,555)	(1,799,298)	-	(35,574,853)
Distribution system	(37,493,486)	(2,964,361)	-	(40,457,847)
Buildings, plants, and stores	(1,785,093)	(131,749)	-	(1,916,842)
Field and office equipment	(11,945,082)	(913,923)	489,612	(12,369,393)
Total accumulated depreciation	(84,999,216)	(5,809,331)	489,612	(90,318,935)
Total depreciable assets, net	178,902,320	631,433	(20,516)	179,513,237
Total capital assets, net	$ 188,079,766	5,256,400	(4,236,506)	189,099,660

(4) Capital Assets, continued

Capital asset activity for the sewer utility for the fiscal year ended June 30, 2016:

	Balance July 1, 2015	Adjustments	Additions	Deletions/ Transfers	Balance June 30, 2016
Non-depreciable assets:					
Land and easements	$ 11,961,413	(206,240)	-	-	11,755,173
Construction in progress	13,933,993	-	4,177,470	(1,303,668)	16,807,795
Total non-depreciable assets	25,895,406	(206,240)	4,177,470	(1,303,668)	28,562,968
Depreciable assets:					
Pumping	3,192,218	-	429,800	-	3,622,018
Buildings, plants, and stores	130,072,212	206,240	882,955	(128,799)	131,032,608
Field and office equipment	5,866,346	-	98,895	(44,598)	5,920,643
Total depreciable assets	139,130,776	206,240	1,411,650	(173,397)	140,575,269
Less: accumulated depreciation					
Water rights, wells and pumping	(2,451,745)	-	(158,284)	-	(2,610,029)
Buildings, plants, and stores	(93,126,106)	-	(1,103,355)	128,799	(94,100,662)
Field and office equipment	(5,302,282)	-	(30,787)	44,598	(5,288,471)
Total accumulated depreciation	(100,880,133)	-	(1,292,426)	173,397	(101,999,162)
Total depreciable assets, net	38,250,643	206,240	119,224	-	38,576,107
Total capital assets, net	$ 64,146,049	-	4,296,694	(1,303,668)	67,139,075

(5) Operating Leases

Effective December 15, 2008, the Department took possession of leased space for administrative office and warehouse space for a term of ten years. As of October 29, 2015, the lease ownership transferred from Superior Homes LLC to Woo Sung Lim. The following is a schedule of minimum lease payments as of June 30, 2016:

Year	Water Utility	Sewer Utility	Total
2017	$ 228,408	31,152	259,560
2018	228,408	31,152	259,560
	$ 456,816	62,304	519,120

(6) Long-term Liabilities

Water Utility Fund

Changes in long-term liabilities in the water utility fund for the year ended June 30, 2016 are as follows:

	Balance July 1, 2015	Additions	Reductions	Balance June 30, 2016	Current Portion	Long-term Portion
Notes Payables:						
2002 CIEB	$ 4,602,020	-	(594,440)	4,007,580	614,294	3,393,286
2007 CIEB	6,879,391	-	(492,777)	6,386,614	506,131	5,880,483
2012 CIEB	9,162,694	-	(435,113)	8,727,581	446,470	8,281,111
SMVMWD Note	472,422	-	(225,535)	246,887	246,887	-
Total Notes Payable	21,116,527	-	(1,747,865)	19,368,662	1,813,782	17,554,880
Compensated Absences	941,889	929,265	(966,693)	904,461	723,569	180,892
Total long term-debt, Water fund	$22,058,416	929,265	(2,714,558)	20,273,123	2,537,351	17,735,772

2002 California Infrastructure and Economic Development Bank (CIEDB) Note Payable

In April 2002, CIEDB issued a $10,000,000 note to the Department to provide funding for transmission mains, booster stations and a reservoir identified in the Water System Reliability Schedule of Improvements. The note was issued with an interest rate of 3.34% with interest payable semiannually on February 1 and August 1. Principal payments are due annually on February 1.

Debt service requirements on the 2002 CIEDB Note Payable are as follows:

Year	Principal	Interest	Total
2017	$ 614,294	133,854	748,148
2018	634,812	113,336	748,148
2019	656,014	92,133	748,147
2020	677,925	70,222	748,147
2021	700,568	47,579	748,147
2022	723,967	24,181	748,148
	$ 4,007,580	481,305	4,488,885

(6) Long-term Liabilities, continued

2007 CIEDB Note Payable

In July 2007, CIEDB issued a $10,000,000 note to the Department to provide funding for booster stations and transmission mains in the Verdemont area. The note was issued with an interest rate of 2.71% with interest payable semiannually on February 1 and August 1. Principal payments are due annually on August 1.

Debt service requirements on the 2007 CIEDB Note Payable are as follows:

Year	Principal	Interest	Total
2017	$ 506,131	166,219	672,350
2018	519,847	152,317	672,164
2019	533,935	138,038	671,973
2020	548,405	123,373	671,778
2021	563,266	108,310	671,576
2022-2026	3,053,743	300,920	3,354,663
2027	661,287	8,960	670,247
	$ 6,386,614	998,137	7,384,751

2012 CIEDB Note Payable

In May 2012, CIEDB issued a $10,000,000 note to the Department to provide funding for the construction of the 12 million gallon Ogden Reservoir and certain pipeline improvements. The note was issued with an interest rate of 2.61% with interest payable semiannually on February 1 and August 1. Principal payments are due annually on August 1.

Debt service requirements on the 2012 CIEDB Note Payable are as follows:

Year	Principal	Interest	Total
2017	$ 446,470	221,963	668,433
2018	458,123	210,158	668,281
2019	470,080	198,045	668,125
2020	482,349	185,616	667,965
2021	494,938	172,863	667,801
2022-2026	2,675,336	661,050	3,336,386
2027-2031	3,043,174	288,412	3,331,586
2032	657,111	8,575	665,686
	$ 8,727,581	1,946,682	10,674,263

SBVMWD Note Payable

In July 2012, the Department closed escrow on the purchase of real property from the San Bernardino Valley Municipal Water District (SBVMWD), which included a down payment of $1,000,000 and a promissory note of $1,117,500 to be paid in sixty (60) monthly installments due on or before the 1st of each month.

Debt service requirements on the SBVMWD Note Payable are as follows:

Year	Principal	Interest	Total
2017	$ 246,887	1,443	248,330

(6) Long-term Liabilities, continued

Debt Service Coverage

The Water Utility Fund is required to maintain net revenues adequate to cover 110% of annual debt service. Gross revenue is defined as Operating Revenue combined with non-operating revenue. Debt service coverage for the Water Utility Fund for the year ended June 30, 2016 was as follows:

Gross revenue	$ 30,310,800
Operating expenses	35,883,023
Less: depreciation expense	(5,809,331)
Net operating expenses	30,073,692
Net Non-Operating Income	2,615,915
Net revenues	$ 2,853,023
Annual debt service	$ 2,318,805
Actual coverage ratio	1.23

Sewer Utility Fund

Changes in long-term liabilities in the sewer utility fund for the year ended June 30, 2016 are as follows:

	Balance July 1, 2015	Additions	Reductions	Balance June 30, 2016	Current Portion	Long-term Portion
Notes Payables:						
State Revolving Fund	$ 1,709,710	-	(1,709,710)	-	-	-
Total Notes Payable	1,709,710	-	(1,709,710)	-	-	-
Certificates of Participation:						
1998 Certificates of Participation	6,375,000	-	(6,375,000)	-	-	-
Less: unamortized discounts	(28,692)	-	28,692	-	-	-
Total Certificates of Participation	6,346,308	-	(6,346,308)	-	-	-
SBVMWD Loan	-	1,200,000	-	1,200,000	300,000	900,000
Compensated Absences	284,242	581,434	(537,857)	327,819	262,255	65,564
Total long term-debt, Sewer fund	$ 8,340,260	1,781,434	(8,593,875)	1,527,819	562,255	965,564

State Revolving Fund Note Payable

The State Water Resources Control Board issued a note to Santa Ana Watershed Authority to provide funding for the Santa Ana Watershed Authority providing funding for the San Bernardino/Colton Rapid Infiltration Extraction (RIX) project in the amount of $25,978,599. In April 2001, the agreement was amended to transfer the note obligation to the successors in interest being the City of San Bernardino Board of Water Commissioners and the City of Colton. The note was paid off during the fiscal year ended June 30, 2016.

(6) Long-term Liabilities, continued

1998 Certificates of Participation

In 1998, the sewer treatment utility issued $36,230,000 in Certificates of Participation to advance refund the 1992 Sewer Certificates of Participation and fund additional capital improvements. The 1992 Certificates originally provided for the construction of certain capital improvements. The proceeds of the 1998 Certificates were invested and used to pay interest on the 1998 issue until February 1, 2001, when the 1992 Certificates were called at a prepayment premium of two percent. The Department has paid the installment payments on the 1998 Certificates from the net revenues of the sewer treatment system. The Certificates of Participation were paid off during the fiscal year ended June 30, 2016.

SBVMWD Loan

In December 2015, the Department entered into an agreement loan of $1,200,000 with the San Bernardino Valley Municipal Water District (SBVMWD) for UV System Rehabilitation project improvements to the Rapid Infiltration and Extraction (RIX) facility owned by the City of Colton and the Department.

(7) Pension Plan

The Department is considered to be part of the City of San Bernardino PERS pension plan, therefore all related information included in this note refers to the City as a whole unless specifically indicating otherwise. All qualified permanent and probationary employees are eligible to participate in the Department's Miscellaneous Plan, an agent multiple-employer defined benefit pension plan administered by the California Public Employees' Retirement System (CalPERS), which acts as a common investment and administrative agent for its participating member employers. Benefit provisions under the Plan are established by State statute and Local Government resolution. CalPERS issues publicly available reports that include a full description of the pension plans regarding benefit provisions, assumptions and membership information that can be found on the CalPERS website. Additional disclosures and required supplementary information regarding the City's plan can be found in the City's audited financial statements.

Benefits provided

CalPERS provides service retirement and disability benefits, annual cost of living adjustments and death benefits to plan members, who must be public employees and beneficiaries. Benefits are based on years of credited service, equal to one year of full time employment. The Plans' provisions and benefits in effect at June 30, 2016, are summarized as follows:

	Miscellaneous	
Hire date	Prior to January 1, 2013	On or after January 1, 2013
Benefit formula	2.7% @ 55	2% @ 60
Benefit vesting schedule	5 years service	5 years of service
Benefit payments	monthly for life	monthly for life
Retirement age	50-55	52-67
Monthly benefits, as a % of eligible compensation	2.0% to 2.7%	1.0% to 2.5%
Required employee contribution rates	8%	8%
Required employer contribution rates	22.024%	22.024%

(7) Pension Plan, continued

Employees Covered

As of June 30, 2014, the following employees were covered by the benefit terms of the Plan:

	City-wide	Department
Inactive employees or beneficiaries currently receiving benefits	1,304	123
Inactive employees entitled to but not yet receiving benefits	855	-
Active employees	765	246
Total	**2,924**	**369**

Contribution Description

Section 20814(c) of the California Public Employees' Retirement Law (PERL) requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. The total plan contributions are determined through CalPERS' annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The employer is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. Employer contribution rates may change if plan contracts are amended. It is the responsibility of the employer to make necessary accounting adjustments to reflect the impact due to any Employer Paid Member Contributions or situations where members are paying a portion of the employer contribution.

Actuarial Methods and Assumptions used to determine Total Pension Liability

For the measurement period ended June 30, 2015 (the measurement date), the total pension liability was determined by rolling forward the June 30, 2014 total pension liability. The June 30, 2014 and the June 30, 2015 total pension liabilities were based on the following actuarial methods and assumptions:

Actuarial Cost Method	Entry Age Normal in accordance with the requirements of GASB Statement No. 68
Actuarial Assumptions	
Discount Rate	7.65%
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Investment Rate of Return	7.50% Net of Pension Plan Investment and Administrative Expenses: includes Inflation
Mortality Rate Table[1]	Derived using CalPERS' Membership Data for all funds
Post Retirement Benefit Increase	Contract COLA up to 2.75% until Purchasing Power applies, 2.75% thereafter

[1] The mortality table used was developed based on CalPERS' specific data. The table includes 20 years of mortality improvements using Society of Actuaries Scale BB. For more details on this table, please refer to the 2014 experience study report.

(7) Pension Plan, continued

All other actuarial assumptions used in the June 30, 2014 valuation were based on the results of an actuarial experience study for the period from 1997 to 2011, including updates to salary increase, mortality and retirement rates. The Experience Study report can be obtained at the CalPERS website under Forms and Publications.

Changes of Assumptions

GASB 68, paragraph 68 states that the long long-term expected rate of return should be determined net of pension plan investment expense but without reduction for pension plan administrative expense. The discount rate of 7.50 percent used for the June 30, 2014 measurement date was net of administrative expenses. The discount rate of 7.65 percent used for the June 30, 2015 measurement date is without reduction of pension plan administrative expense.

Discount Rate

The discount rate used to measure the total pension liability was 7.65 percent. To determine whether the municipal bond rate should be used in the calculation of a discount rate for each plan, CalPERS stress tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing of the plans, the test revealed that the assets would not run out. Therefore, the current 7.65 percent discount rate is appropriate and the use of the municipal bond rate calculation is not deemed necessary. The long-term expected discount rate of 7.65 percent is applied to all plans in the Public Employees Retirement Fund. The stress test results are presented in a detailed report called “GASB Crossover Testing Report” that can be obtained on CalPERS’ website under the GASB 68 section.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

In determining the long-term expected rate of return, staff took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Such cash flows were developed assuming that both members and employers will make their required contributions on time and as scheduled in all future years. Using historical returns of all the funds’ asset classes, expected compound (geometric) returns were calculated over the short-term (first 10 years) and the long-term (11-60 years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equivalent to the single equivalent rate calculated above and rounded down to the nearest one quarter of one percent.

(7) Pension Plan, continued

The table below reflects long-term expected real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These rates of return are net of administrative expenses.

Asset Class	New Strategic Allocation	Real Return Years 1 - 10[1]	Real Return Years 11+[2]
Global Equity	51.0%	5.25%	5.71%
Global Fixed Income	19.0	0.99	2.43
Inflation Sensitive	6.0	0.45	3.36
Private Equity	10.0	6.83	6.95
Real Estate	10.0	4.50	5.13
Infrastructure and Forestland	2.0	4.50	5.09
Liquidity	2.0	(0.55)	(1.05)

[1]An expected inflation of 2.5% used for this period
[2]An expected inflation of 3.0% used for this period

Pension Plan Fiduciary Net Position

The plan fiduciary net position disclosed in the GASB 68 accounting valuation report may differ from the plan assets reported in the funding actuarial valuation report due to several reasons. First, for the accounting valuations, CalPERS must keep items such as deficiency reserves, fiduciary self-insurance and OPEB expense included as assets. These amounts are excluded for rate setting purposes in the funding actuarial valuation. In addition, differences may result from early Comprehensive Annual Financial Report closing and final reconciled reserves.

Changes in Net Pension Liability

The following table shows the Plan's proportionate share of the net pension liability of the City's plan over the measurement period:

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (c) = (a) - (b)
Balance at: 6/30/2014 (VD)	$ 182,054,201	$ 141,121,803	$ 40,932,398
Balance at: 6/30/2015 (MD)	184,064,118	139,146,255	44,917,863
Net Changes during 2014-15	2,009,917	(1,975,548)	3,985,465

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Plan as of the Measurement Date, calculated using the discount rate of 7.50 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower (6.50 percent) or 1 percentage-point higher (8.50 percent) than the current rate:

(7) Pension Plan, continued

	Discount Rate – 1% (6.50%)	Current Discount Rate (7.50%)	Discount Rate + 1% (8.50%)
Plan's Net Pension Liability – Department Allocation (36%)	$ 68,746,040	$ 44,917,863	$ 25,222,701

Subsequent Events

There were no subsequent events that would materially affect the results presented in this disclosure.

Recognition of Gains and Losses

Under GASB 68, gains and losses related to changes in total pension liability and fiduciary net position are recognized in pension expense systematically over time.

The first amortized amounts are recognized in pension expense for the year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to pensions and are to be recognized in future pension expense.

The amortization period differs depending on the source of the gain or loss:

Difference between projected and actual earnings	5 year straight-line amortization
All other amounts	Straight-line amortization over the average expected remaining service lives of all members that are provided with benefits (active, inactive, and retired) as of the beginning of the measurement period.

The expected average remaining service lifetime (EARSL) is calculated by dividing the total future service years by the total number of plan participants (active, inactive, and retired).

The EARSL for the Plan for the 2014-15 measurement period is 2.4 years, which was obtained by dividing the total service years of 6,904 (the sum of remaining service lifetimes of the active employees) by 2,924 (the total number of participants: active, inactive, and retired). Note that inactive employees and retirees have remaining service lifetimes equal to 0. Also note that total future service is based on the members' probability of decrementing due to an event other than receiving a cash refund.

Pension Expense and Deferred Outflows and Deferred Inflows of Resources Related to Pensions

For the measurement period ending June 30, 2015 (the measurement date), the Department recognized a pension expense of $1,414,171 for the Plan.

(7) Pension Plan, continued

As of June 30, 2016, the Department reports other amounts for the Plan as deferred outflow and deferred inflow of resources related to pensions as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contributions subsequent to measurement date	$3,607,951	$0
Differences between Expected and Actual Experience	0	(971,986)
Changes of Assumptions	0	(1,845,803)
Net Difference between Projected and Actual Earnings on Pension Plan Investments	0	(1,282,976)
Total	$3,607,951	$(4,100,765)

The amounts above are net inflows and outflows recognized in the 2014-15 measurement period expense.

$3,607,951 reported as deferred outflows of resources related to employer contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2017. That and other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows:

Measurement period Ended June 30:	Deferred Outflows/(Inflows) of Resources
2016	(2,936,653)
2017	(1,729,028)
2018	(923,945)
2019	1,488,861
2020	0
2021	0

(8) Other Post-Employment Benefits

Plan Description

The Department provides health benefits to all qualifying retirees and their spouses in accordance with Memorandums of Understanding under various labor agreements.

Eligibility

Employees are eligible for retiree health benefits if they retire from the Department on or after age 50 with at least 10, 12 or 15 years of service, depending on bargaining unit, and are eligible for a PERS pension. The latest actuarial valuation of the plan occurred June 30, 2014. Membership consists of the following:

Retirees and beneficiaries receiving benefits	123
Active plan members	246
Total plan members	369

(8) Other Post-Employment Benefits

Funding Policy

The contribution requirements of plan members and the Department are established and may be amended by the Board. The required contribution is based on projected pay-as-you-go financing requirements, with an additional amount to prefund benefits as may be determined annually by the Board. The Department has established an irrevocable trust to which pre-funding contributions are made. For fiscal year 2016, the Department has funded $2,401,131 for the current year. The Department pays up to the entire cost of health benefits for eligible retirees and their spouses, subject to the City's vesting schedule.

Annual OPEB Cost and Net OPEB Obligation

The Department's annual other post-employment benefit (OPEB) cost (expense) is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The following table shows the components of the Department's annual OPEB cost for the year, the amount actually contributed to the plan, and changes in the Department's net OPEB obligation:

Actual required contribution (ARC)	$2,794,000
Interest on new OPEB obligation	22,000
Amortization of net OPEB obligation	(31,000)
Annual OPEB cost (expense)	2,785,000
Contributions made	(2,401,131)
Increase in net OPEB obligation	383,869
Net OPEB obligation - beginning of year	795,221
Net OPEB obligation - end of year	$1,179,090

The Department's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for 2014 and the two preceding years were as follows:

Year Ended	Annual OPEB Cost	Paid Contribution	Percentage of Annual OPEB Cost Contibuted	OPEB Obligation
6/30/2014	$ 2,438,000	3,872,869	159%	352,510
6/30/2015	2,699,032	2,256,321	84%	795,221
6/30/2016	2,785,000	2,401,131	86%	1,179,090

Funded Status and Funding Progress

As of June 30, 2014, the most recent actuarial valuation date, the plan was 38.2% funded. The actuarial accrued liability for benefits was $35,012,000, the actuarial value of assets was $13,380,000 and the unfunded actuarial accrued liability (UAAL) was $21,632,000. The covered payroll (annual payroll of active employees covered by the plan) was $15,531,000 and the ratio of the UAAL to the covered payroll was 139.3%.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates

(8) Other Post-Employment Benefits, continued

are made about the future. The schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the June 30, 2014, actuarial valuation, the entry age actuarial cost method was used. The actuarial assumptions included a rate of return of 6.25% and annual healthcare cost trend rates of 7.5% initially, reduced by increments to an ultimate rate of 5% in 2021. Both rates included a 3% inflation assumption. The actuarial value of assets was determined using techniques that spread the effects of short-term volatility in the market value of investments over a five-year period. The UAAL is being amortized as a level percentage of projected payroll on a closed basis. The remaining amortization period at June 30, 2015, was 18 years.

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll (b-a)/c
6/30/2010	$ -	$ 28,676,000	$ 28,676,000	0.0%	$ 12,619,000	227.2%
6/30/2012	8,556,000	28,831,000	20,275,000	29.7%	14,765,000	137.3%
6/30/2014	13,380,000	35,012,000	21,632,000	38.2%	15,531,000	139.3%

(9) Related Party Transactions

The following is a summary of transactions and balances with the City of San Bernardino and its various Departments as of and for the year ended June 30, 2016.

Receipts	Water Utility	Sewer Utility	Total
City of San Bernardino:			
Revenue from Water Charges	$ 983,387	-	983,387
Revenue from Sewer Charges	-	64,221	64,221
Revenue from Geothermal Charges	21,551	-	21,551
Billing & Collection Charges - Refuse	270,000	-	270,000
Billing & Collection Charges - Storm Drain	4,602	-	4,602
Billing & Collection Charges - Sewer Collection	63,000	-	63,000
Cost Reimbursement	69,400	-	69,400
Miscellaneous	-	600	600
Total receipts from related parties	$1,411,940	64,821	1,476,761

Payments	Water Utility	Sewer Utility	Total
City of San Bernardino:			
Worker's Compensation (Admin. Charges)	$ 241,302	64,089	305,391
Printing Services	698	1,196	1,894
Postage	26,414	-	26,414
Refuse Disposal Service	11,208	-	11,208
Consulting Services	3,158,832	-	3,158,832
Franchise Fee	-	107,784	107,784
Permits	87,760	7,203	94,963
Cost Reimbursement	9,488	2,646	12,134
Total payments to related parties	$3,535,702	182,918	3,718,620

Receivables	Water Utility	Sewer Utility	Total
City of San Bernardino:			
Related party receivable	$ 842,909	39,356	882,265
Accounts receivable, net	4,683	300	4,983
Due from other entities	29,929	113,651	143,580
Total receivable from related parties	$ 877,521	153,307	1,030,828

Payables	Water Utility	Sewer Utility	Total
City of San Bernardino:			
Related party payable	$1,570,911	721,511	2,292,422
Accounts payable	18,109	-	18,109
Claims payable	1,048,326	246,180	1,294,506
Total payable to related parties	$2,637,346	967,691	3,605,037

(10) Joint Ventures

Colton / San Bernardino Regional Tertiary Treatment and Water Reclamation Authority

On August 2, 1994, the City of San Bernardino, through the Department formed a joint powers authority with the City of Colton to construct, operate, use and maintain tertiary wastewater treatment, disposal and water reclamations systems, including the Regional Rapid Infiltration and Extraction Facility (RIX). This authority is governed by a separate board consisting of four members; two appointed by the City of San Bernardino through the Department's BOWC and two appointed by the City Council of the City of Colton. Construction of RIX was administered by the Santa Ana Watershed Project Authority and was substantially completed during 1996. Administration and operation was turned over at that time. The cities of San Bernardino and Colton each have a measurable equity interest in the net position of RIX in proportion to its contributions, which are based on an 80% / 20% split, respectively. Substantially all of the assets of RIX are in the form of capital assets. Annual revenues (in the form of contributions from the two member cities) are equal to annual expenses. The Department's equity interest in this joint venture has been reported as an investment in joint venture in the accompanying statement of net position. The RIX complete financial statements may be obtained at City of San Bernardino Municipal Water Department at 444 W. Rialto Avenue San Bernardino, CA 92418.

San Bernardino Public Safety Authority

On April 1, 1968, the City of San Bernardino and the County of San Bernardino formed the San Bernardino Public Safety Authority (PSA), a joint powers authority, as a financing vehicle to construct public safety buildings and improvements to the wastewater treatment plant. In accordance with the terms of an installment purchase agreement, title to the capital assets financed through the PSA were recognized as capital assets of the City at the inception of the installment purchase agreement between the City and the PSA. The City's remaining interest in the joint venture is in the form of cash and investments held by the PSA for debt service related activity. The Department's equity interest in these assets has been recognized in the accompanying statement of net position as an investment in joint venture.

West End Water Development, Treatment and Conservation Joint Powers Authority

On August 15, 1990, the City of San Bernardino joined the West End Water Development, Treatment and Conservation Joint Powers Authority (WEJPA) as a financing vehicle for construction of water facilities. A three-member board consisting of one representative from each agency's governing body governs the WEJPA. This joint venture was formed to provide a financing vehicle for the three member agencies. This joint venture is currently inactive.

(11) Commitments and Contingencies

Risk Management

Risk management activities are recorded in both utility funds. Significant losses are covered by insurance for all major events except workers' compensation, for which the Department retains risk of loss in conjunction with the City of San Bernardino's risk management program for workers compensation. Settlement amounts have not exceeded insurance coverage for the current year or the prior three years. Insurance coverage has been increased over the past several years.

The Department records an estimated liability for workers' compensation. Claims liabilities are based on estimates of the ultimate cost of reported claims and an estimate for claims incurred but not reported based upon historical experience. Workers' compensation claims liability is not discounted.

(11) Commitments and Contingencies, continued

The following are the changes in approximate aggregate liabilities for the year ended June 30, 2015 and June 30, 2016. During the past three fiscal (claims) years, the Department had no settlements or judgments that exceeded pooled or insured coverage. There was also no significant reductions in pooled or insured liability coverage in fiscal year 2016.

Claims Liabilities	Water Utility	Sewer Utility	Total
Balance, June 30, 2014	$ 731,496	268,107	999,603
Claims and changes in estimates	835,698	177,237	1,012,935
Claims payments	(353,655)	(205,671)	(559,326)
Balance, June 30, 2015	1,213,539	239,673	1,453,212
Claims and changes in estimates	119,427	81,607	201,034
Claims payments	(284,640)	(75,100)	(359,740)
Balance, June 30, 2016	$ 1,048,326	246,180	1,294,506

Litigation

In the ordinary course of operations, the Department is subject to claims and litigation from outside parties. After consultation with legal counsel, the Department believes the ultimate outcome of such matters, if any, will not materially affect its financial condition.

(12) Federal and State Grants

Grant funds received by the Department are subject to audit by the grantor agencies. Such audit could lead to requests for reimbursements to the grantor agencies for expenditures disallowed under terms of the grant. Management of the Department believes that such disallowances, if any, would not be significant. The Department produces a Single Audit that details the use of grant and Consent Decree funds (see note 13 for information on the Consent Decree).

(13) Subsequent Events

On November 16, 2016, the Department issued Series 2016 Water Revenue Bond in the amount of $48,225,000. The proceeds of the 2016 Bonds will be used to (i) finance the acquisition and construction of certain water system capital improvements (the “Project”) of the Department; (ii) refund outstanding obligations of the City of San Bernardino, California (the “City”) relating to the Department; (iii) purchase a Municipal Bond Debt Service Reserve Insurance Policy in satisfaction of the Reserve Requirement (each as defined herein) for the 2016 Bonds; and (iv) pay the costs of issuance of the 2016 Bonds.

(13) Consent Decree

In 1996, the City of San Bernardino filed a complaint against the United States of America, Department of the Army to recover damages, response costs and other available remedies relating to contamination alleged to have originated at a World War II army installation known as Camp Ono. In March 2005, the United States District Court, Central Division entered judgment, in the form of a consent decree, in the matter of City of San Bernardino v. United States of America. The Consent Decree settles the City's and the State's claims arising from the groundwater contamination allegedly caused by the Army. The Consent Decree contains a number of provisions obligating the City (through the Department) to operate and maintain the Newmark Groundwater Superfund Site (Site). The Site consists of two operable units, the Newmark Operable Unit and the Muscoy Operable Unit. The Newmark Operable Unit was declared operational and functional in 1998. The Muscoy Operable unit was declared operational and functional in 2007.

The Consent Decree provided for a payment of $69 million from the Army to the City for performance of the work outlined in the Consent Decree. Upon acceptance of the Consent Decree, the Department received title to all facilities constructed by the United States Environmental Protection Agency (EPA) of the Site and agreed to operate and maintain the groundwater extraction and treatment system for a period of 50 years. The $69 million payment consisted of $59 million for operations and maintenance and $10 million for the construction of certain capital facilities that would be required in the future; the funds are subject to strict limitations, contained in the Consent Decree, as to how the money may be spent.

Pursuant to the Consent Decree, $10 million, including interest earned, has been set aside to be used only for (i) funding construction of treatment and directly related transmission systems that expand the Department's capacity to deliver potable water and (ii) funding work performed by the Department to complete construction of the Muscoy Operable Unit extraction system. These capital facility funds may not be used for costs incurred to operate, maintain, repair or retrofit components of the site extraction of treatment systems constructed by EPA.

In March 2006, the Department entered into a Guaranteed Investment Contract with AIG Match Funding Corporation. The Department invested $16,482,039 of excess Consent Decree funds into an interest bearing Escrow Fund investment with an interest rate of 4.95% per annum. These funds were invested to pay costs associated with the water facilities defined in the Consent Decree for years 2035-2056. An additional $50 million was used to purchase a blended insurance policy to provide a financial vehicle that provides cost gap coverage for the first 30 years of expenses.

The terms of the Guaranteed Investment Contract only provided the Department with the position of a secured creditor with respect to an AIG bankruptcy. As concerns arose regarding AIG's financial credibility, in October 2009, the Department negotiated and accepted a "payout" in the amount of $18,661,876 which represented the principal and accrued interest as of that date. These funds are currently invested in a diversified portfolio managed by PFM Asset Management and present in more detail in note 3.

(14) Net Position

Net position at June 30, 2016, consisted of the following:

	Water Utility	Sewer Utility	Total
Net investment in capital assets:			
Non-depreciable assets	$ 9,586,423	28,562,968	38,149,391
Depreciable assets	269,832,172	140,575,269	410,407,441
Accumulated Depreciation and amortization	(90,318,935)	(101,999,162)	(192,318,097)
Less: related debt			
Notes payable, current portion	1,813,782	300,000	2,113,782
Notes payable, noncurrent portion	17,554,880	900,000	18,454,880
Total net investment in capital assets	169,730,998	65,939,075	235,670,073
Restricted for capital-related fees:			
Cash and cash equivalents, restricted for capital-related fees	-	7,814,086	7,814,086
Unrestricted:			
Designated for operating reserve	-	2,309,354	2,309,354
Designated for rate stabilization reserve	-	2,679,273	2,679,273
Designated for emergency replacement reserve	-	1,924,381	1,924,381
Designated for capital replacement reserve	-	9,407,667	9,407,667
Undesignated	(17,407,765)	9,252,054	(8,155,711)
Total unrestricted	(17,407,765)	25,572,729	8,164,964
Total net position	$ 152,323,233	$ 99,325,890	$ 251,649,123

PAGE INTENTIONALLY LEFT BLANK

STATISTICAL SECTION

(Unaudited)

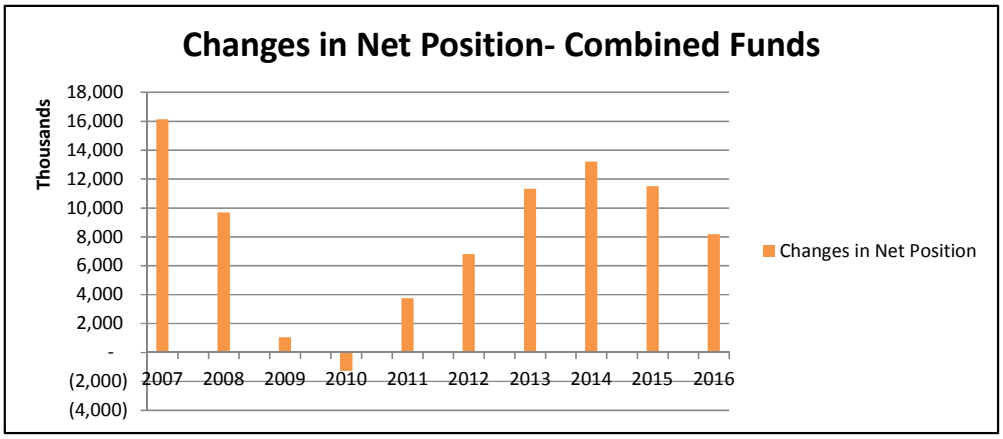
FINANCIAL TRENDS

These schedules contain trend informaton to help the reader understand how the Department's financial performance and well-being have changed over time.

City of San Bernardino Municipal Water Department
Changes in Net Poistion
Last Ten Fiscal Years

Fiscal Year Ended	Total Operating Revenue	Total Operating Expense	Operating Income	Total Non-Operating Income (Expense)	Total Contributed Capital	Changes in Net Position
6/30/2007	47,914,999	48,791,026	(876,027)	2,106,963	14,904,830	16,135,766
6/30/2008	46,757,411	54,172,974	(7,415,563)	3,838,588	13,263,336	9,686,361
6/30/2009	47,171,798	54,044,608	(6,872,810)	2,717,707	5,197,854	1,042,751
6/30/2010	47,808,997	57,965,395	(10,156,398)	1,375,536	7,510,777	(1,270,085)
6/30/2011	54,280,835	56,328,523	(2,047,688)	1,408,498	4,390,162	3,750,972
6/30/2012	60,756,697	58,971,535	1,785,162	1,974,266	3,055,921	6,815,349
6/30/2013	61,883,615	57,327,537	4,556,078	1,861,758	4,896,921	11,314,757
6/30/2014	62,292,428	57,965,395	4,327,033	1,375,536	7,510,777	13,213,346
6/30/2015	57,805,304	55,074,661	2,730,643	3,801,830	4,977,945	11,510,418
6/30/2016	55,376,650	53,529,824	1,846,826	2,059,111	4,271,325	8,177,262

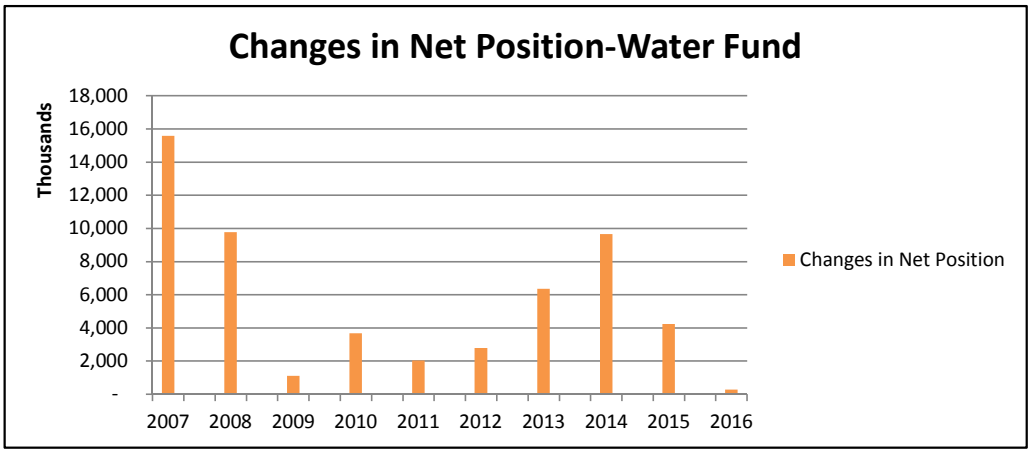
Source: Department's annual reports



City of San Bernardino Municipal Water Department
Water Fund
Changes in Net Position
Last Ten Fiscal Years

Fiscal Year Ended	Total Operating Revenue	Total Operating Expense	Operating Income	Total Non-Operating Income (Expense)	Total Contributed Capital	Changes in Net Position
6/30/2007	28,232,366	28,069,392	162,974	3,487,628	11,931,117	15,581,719
6/30/2008	27,337,093	32,453,101	(5,116,008)	3,479,605	11,397,947	9,761,544
6/30/2009	27,258,954	32,934,974	(5,676,020)	2,853,518	3,919,197	1,096,695
6/30/2010	27,688,694	31,953,080	(4,264,386)	2,101,540	5,829,803	3,666,957
6/30/2011	33,027,707	35,811,915	(2,784,208)	2,025,029	2,782,168	2,022,989
6/30/2012	37,106,217	39,155,830	(2,049,613)	2,436,449	2,384,710	2,771,546
6/30/2013	37,868,846	37,430,224	438,622	2,492,448	3,421,521	6,352,591
6/30/2014	36,671,903	36,041,616	630,287	2,504,705	6,521,601	9,656,593
6/30/2015	33,121,128	35,504,582	(2,383,454)	2,702,953	3,905,104	4,224,603
6/30/2016	30,001,871	34,834,362	(4,832,491)	2,283,230	2,812,192	262,931

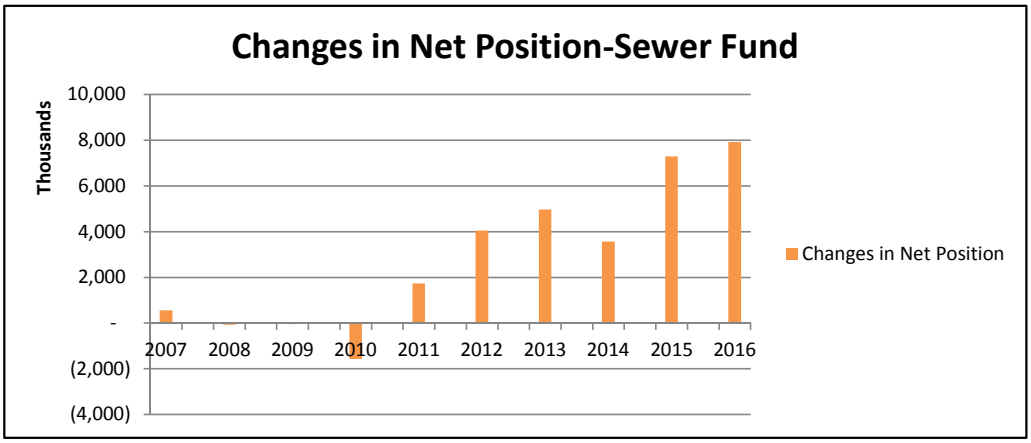
Source: Department's annual reports



City of San Bernardino Municipal Water Department
Sewer Fund
Changes in Net Position
Last Ten Fiscal Years

Fiscal Year Ended	Total Operating Revenue	Total Operating Expense	Operating Income	Total Non-Operating Income (Expense)	Total Contributed Capital	Changes in Net Position
6/30/2007	21,002,484	22,041,485	(1,039,001)	(1,380,665)	2,973,713	554,047
6/30/2008	20,847,984	23,147,539	(2,299,555)	358,983	1,865,389	(75,183)
6/30/2009	21,208,021	22,404,811	(1,196,790)	(135,811)	1,278,657	(53,944)
6/30/2010	22,424,943	24,474,747	(2,049,804)	(19,598)	495,768	(1,573,634)
6/30/2011	23,433,833	22,697,313	736,520	(616,531)	1,607,994	1,727,983
6/30/2012	25,888,729	22,053,954	3,834,775	(462,183)	671,211	4,043,803
6/30/2013	26,414,653	22,297,197	4,117,456	(630,690)	1,475,400	4,962,166
6/30/2014	25,670,774	21,974,028	3,696,746	(1,129,169)	989,176	3,556,753
6/30/2015	24,734,425	19,620,328	5,114,097	1,098,877	1,072,841	7,285,815
6/30/2016	25,410,740	18,731,423	6,679,317	(224,119)	1,459,133	7,914,331

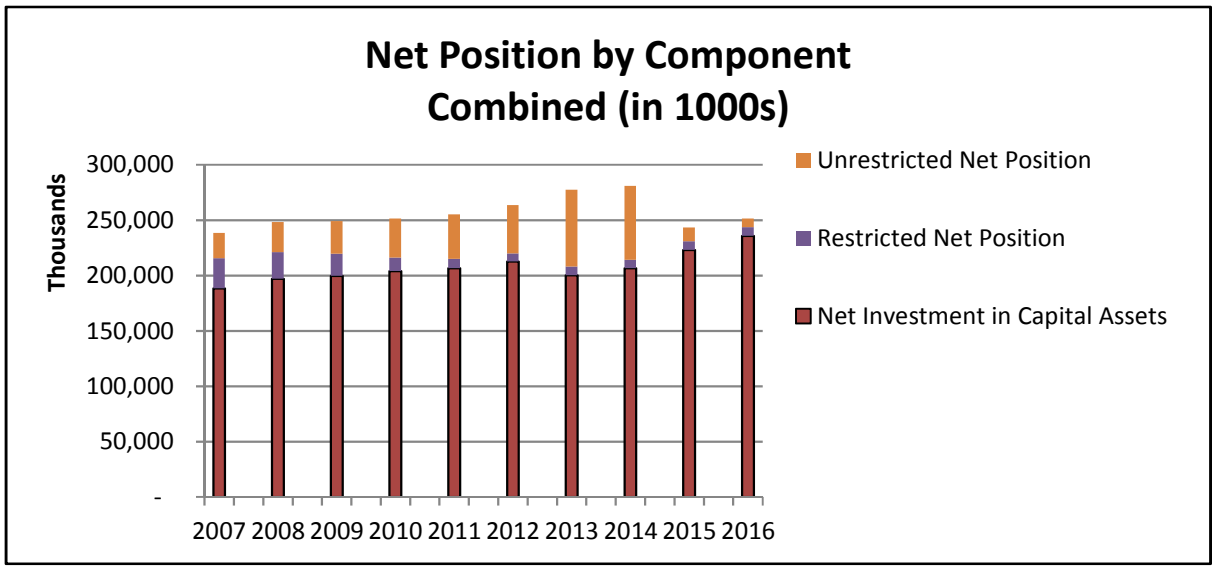
Source: Department's annual reports



City of San Bernardino Municipal Water Department
Net Position by Component
Last Ten Fiscal Years

Fiscal Year Ended	Net Investment in Capital Assets	Restricted Net Position	Unrestricted Net Position	Total Net Position
6/30/2007	188,196,495	27,280,333	22,890,450	238,367,278
6/30/2008	196,892,664	24,205,033	26,955,942	248,053,639
6/30/2009	199,628,149	19,831,726	29,636,515	249,096,390
6/30/2010	204,066,502	11,992,059	35,131,152	251,189,713
6/30/2011	206,520,977	8,276,462	40,143,246	254,940,685
6/30/2012	212,490,593	7,389,246	43,545,621	263,425,460
6/30/2013	200,072,942	7,799,773	69,315,171	277,187,886
6/30/2014	206,663,567	7,515,658	66,524,589	280,703,814
6/30/2015	223,053,269	7,633,049	12,510,969	243,197,287
6/30/2016	235,670,073	7,814,086	7,890,390	251,374,549

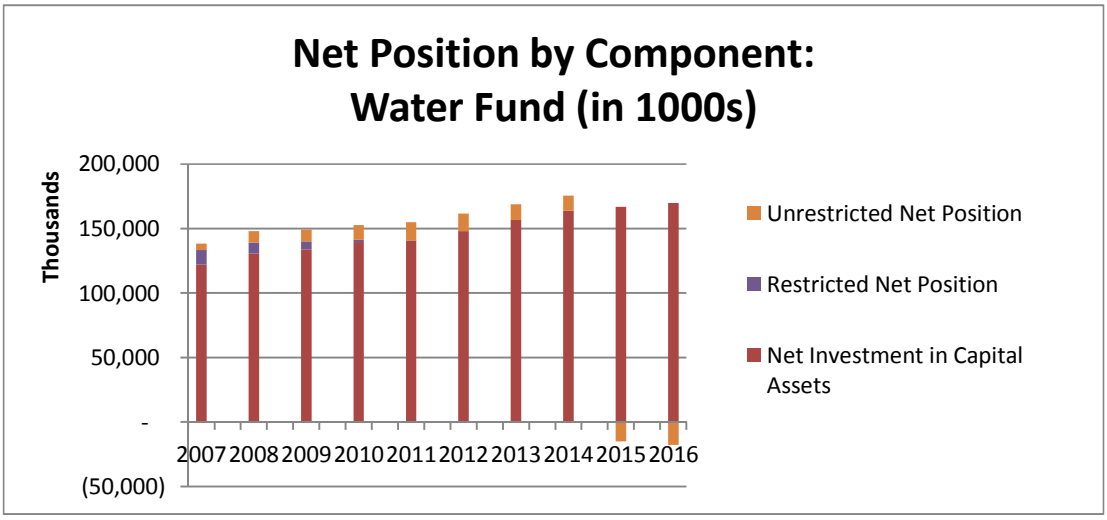
Source: Department's annual reports



City of San Bernardino Municipal Water Department
Net Position by Component-Water Fund
Last Ten Fiscal Years

Fiscal Year Ended	Net Investment in Capital Assets	Restricted Net Position	Unrestricted Net Position	Total Net Position
6/30/2007	122,080,723	11,294,440	4,927,609	138,302,772
6/30/2008	130,610,364	8,406,696	9,047,256	148,064,316
6/30/2009	133,834,066	6,328,449	8,998,496	149,161,011
6/30/2010	139,688,690	1,528,434	11,610,844	152,827,968
6/30/2011	140,912,873	-	13,938,084	154,850,957
6/30/2012	148,063,104	41,320	13,658,195	161,762,619
6/30/2013	156,758,127	-	12,133,904	168,892,031
6/30/2014	163,797,283	-	11,728,071	175,525,354
6/30/2015	166,963,238	-	(15,152,937)	151,810,301
6/30/2016	169,730,998	-	(17,657,766)	152,073,232

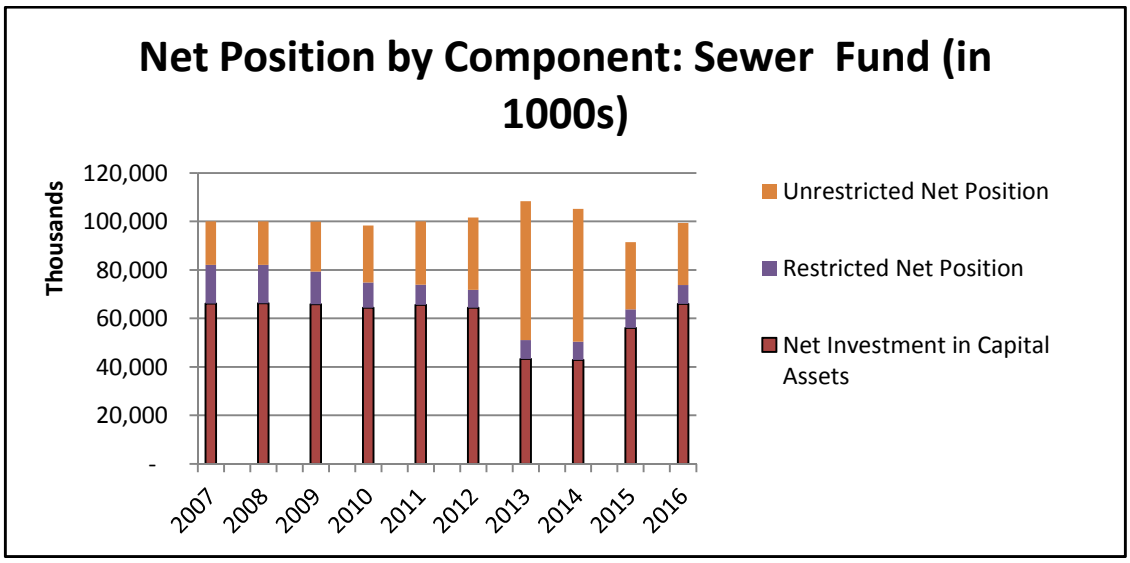
Source: Department's annual reports



City of San Bernardino Municipal Water Department
Net Position By Component-Sewer Fund
Last Ten Fiscal Years

Fiscal Year Ended	Net Investment in Capital Assets	Restricted Net Position	Unrestricted Net Position	Total Net Position
6/30/2007	66,115,772	15,985,893	17,962,841	100,064,506
6/30/2008	66,282,300	15,798,337	17,908,686	99,989,323
6/30/2009	65,794,083	13,503,277	20,638,019	99,935,379
6/30/2010	64,377,812	10,463,625	23,520,308	98,361,745
6/30/2011	65,608,104	8,276,462	26,205,162	100,089,728
6/30/2012	64,427,489	7,347,926	29,887,426	101,662,841
6/30/2013	43,314,815	7,799,733	57,181,267	108,295,815
6/30/2014	42,866,284	7,515,658	54,796,518	105,178,460
6/30/2015	56,090,031	7,633,049	27,663,906	91,386,986
6/30/2016	65,939,075	7,814,086	25,548,156	99,301,317

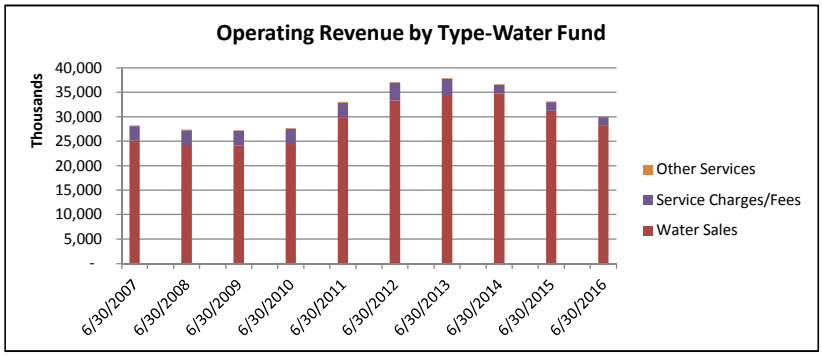
Source: Department's annual reports

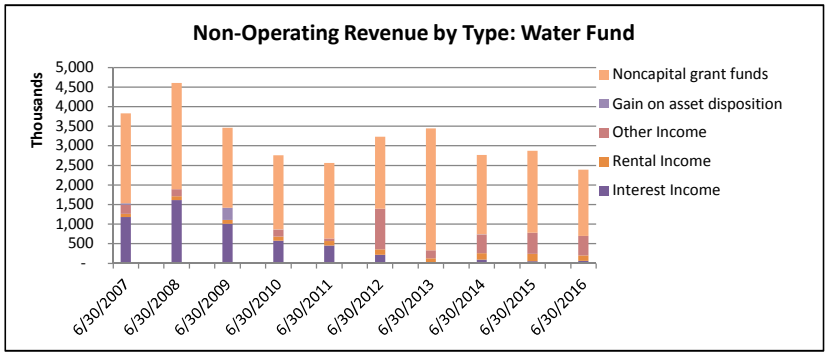


City of San Bernardino Municipal Water Department
Water Fund Revenue by Type
Last Ten Fiscal Years

Fiscal Year Ended	Water Sales	Service Charges/Fees	Other Services	Total Operating Revenue	Interest Income	Rental Income	Other Income	Gain on asset disposition	Noncapital grant funds	Total Non Operating Income
6/30/2007	25,136,912	2,929,446	166,008	28,232,366	1,180,789	82,944	227,509	37,377	2,300,151	3,828,770
6/30/2008	24,194,275	3,005,938	136,880	27,337,093	1,613,192	95,818	178,348	-	2,715,957	4,603,315
6/30/2009	24,147,627	2,991,468	119,859	27,258,954	1,008,607	101,130	-	309,708	2,043,889	3,463,334
6/30/2010	24,436,854	3,118,571	133,269	27,688,694	578,912	98,638	175,782	8,988	1,894,624	2,756,944
6/30/2011	29,782,786	3,101,431	143,489	33,027,707	451,927	117,454	59,960	-	1,928,999	2,558,340
6/30/2012	33,315,084	3,665,354	125,779	37,106,217	219,027	133,400	1,041,667	-	1,838,223	3,232,317
6/30/2013	34,252,357	3,476,061	140,429	37,868,846	-	122,826	211,032	-	3,110,201	3,444,059
6/30/2014	34,777,112	1,754,614	140,176	36,671,903	93,428	160,089	478,512	4,446	2,030,066	2,766,541
6/30/2015	31,217,534	1,789,654	113,940	33,121,128	54,786	181,809	545,840	-	2,089,637	2,872,072
6/30/2016	28,293,790	1,604,472	103,609	30,001,871	63,566	134,845	495,298	-	1,696,219	2,389,928

Source: Department's annual reports

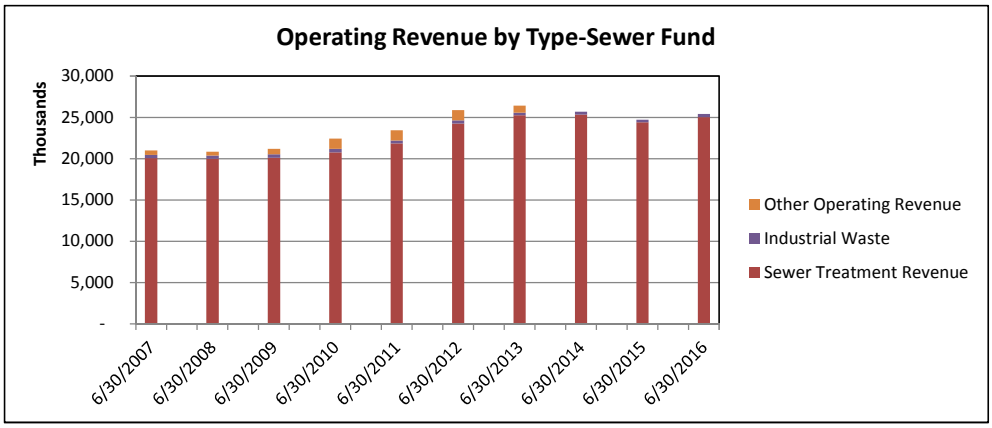


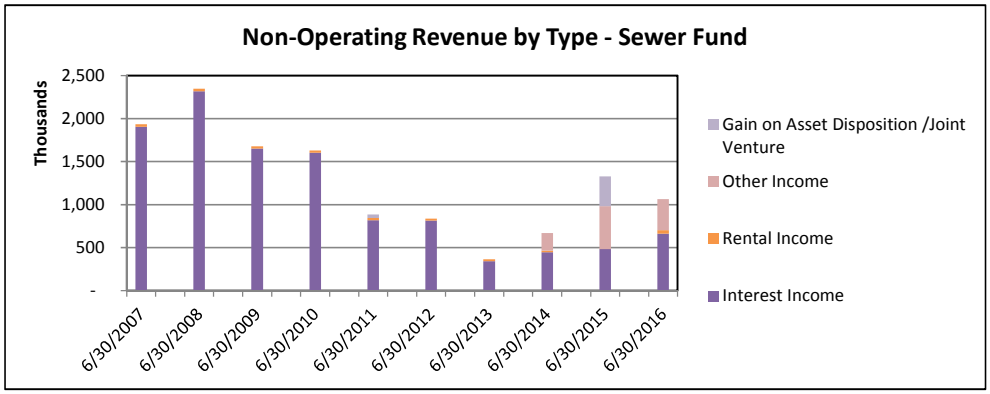


City of San Bernardino Municipal Water Department
Sewer Fund Revenue by Type
Last Ten Fiscal Years

Fiscal Year Ended	Sewer Treatment Revenue	Industrial Waste	Other Operating Revenue	Total Operating Revenue	Interest Income	Rental Income	Other Income	Gain on Asset Disposition /Joint Venture	Total Non Operating Income
6/30/2007	20,083,001	390,328	529,155	21,002,484	1,906,369	29,101	-	-	1,935,470
6/30/2008	20,009,959	372,631	465,394	20,847,984	2,319,570	29,425	-	-	2,348,995
6/30/2009	20,124,192	406,686	677,142	21,208,021	1,652,562	26,826	-	-	1,679,388
6/30/2010	20,771,749	431,300	1,221,894	22,424,942	1,603,840	26,303	-	-	1,630,143
6/30/2011	21,833,085	379,316	1,221,431	23,433,833	817,740	23,517	-	41,609	882,866
6/30/2012	24,250,417	376,550	1,261,762	25,888,729	812,885	21,907	-	-	834,792
6/30/2013	25,261,792	296,153	856,708	26,414,654	340,689	22,574	-	-	363,263
6/30/2014	25,350,988	319,786	-	25,670,774	443,836	20,669	202,078	-	666,583
6/30/2015	24,399,415	335,010	-	24,734,425	481,211	700	498,247	345,884	1,326,042
6/30/2016	25,039,569	380,171	-	25,419,740	658,456	41,498	359,800		1,059,754

Source: Department's annual reports

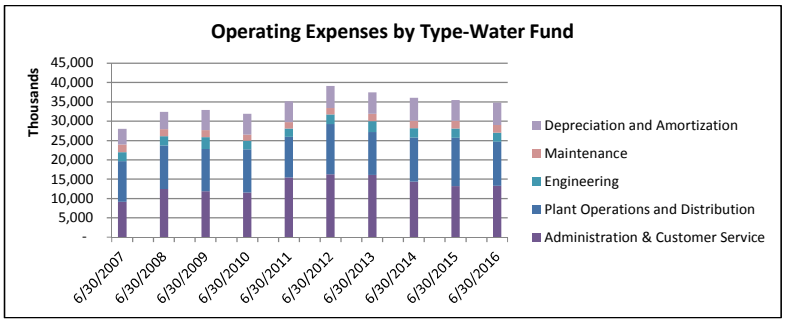


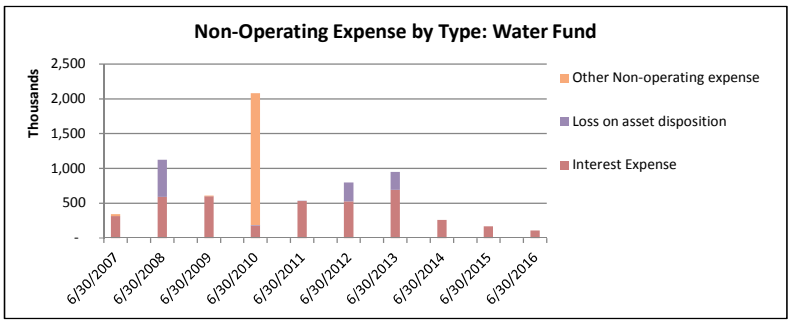


City of San Bernardino Municipal Water Department
Water Fund Expenses by Type
Last Ten Fiscal Years

Fiscal Year Ended	Administration & Customer Service	Plant Operations and Distribution	Engineering	Maintenance	Depreciation and Amortization	Total Operating Expense	Interest Expense	Loss on asset disposition	Other Non-operating expense	Total Non-Operating Expense
6/30/2007	9,142,746	10,532,739	2,334,538	1,994,341	4,065,028	28,069,392	313,450	-	27,692	341,142
6/30/2008	12,493,276	11,250,830	2,405,221	1,813,310	4,490,464	32,453,101	592,182	531,528	-	1,123,710
6/30/2009	11,901,700	10,908,332	3,046,765	1,853,244	5,224,933	32,934,974	601,795	-	8,021	609,816
6/30/2010	11,552,062	11,209,298	2,204,374	1,577,642	5,409,704	31,953,080	175,782	8,988	1,894,624	2,079,394
6/30/2011	15,489,152	10,440,753	2,220,956	1,634,919	5,396,135	35,181,915	531,839	1,472	-	533,311
6/30/2012	16,304,830	12,959,507	2,492,056	1,628,764	5,770,673	39,155,830	526,915	268,953	-	795,868
6/30/2013	16,149,788	11,073,338	2,813,459	1,888,236	5,505,403	37,430,224	689,665	261,946	-	951,611
6/30/2014	14,410,400	11,395,305	2,426,717	1,837,556	5,971,638	36,041,616	261,836	-	-	261,836
6/30/2015	13,244,552	12,467,017	2,439,170	1,988,719	5,365,124	35,504,582	169,119	-	-	169,119
6/30/2016	13,313,085	11,406,861	2,326,551	1,978,534	5,809,331	34,834,362	106,698	-	-	106,698

Source: Department's annual reports

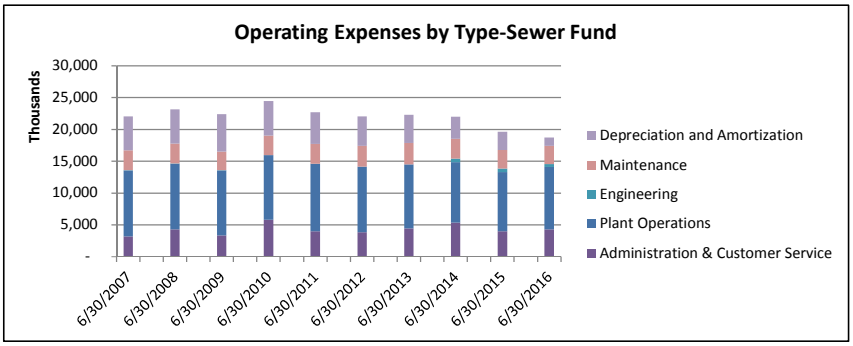


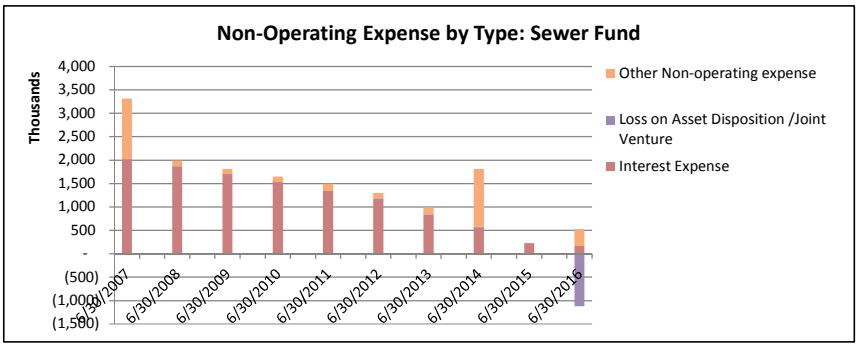


City of San Bernardino Municipal Water Department
Sewer Fund Expenses by Type
Last Ten Fiscal Years

Fiscal Year Ended	Administration & Customer Service	Plant Operations	Engineering	Maintenance	Depreciation and Amortization	Total Operating Expense	Interest Expense	Loss on Asset Disposition /Joint Venture	Other Non-operating expense	Total Non-Operating Expense
6/30/2007	3,180,710	10,388,472	45,794	3,088,137	5,338,372	22,041,485	2,021,326	2,037	1,292,772	3,316,135
6/30/2008	4,318,939	10,293,707	32,336	3,138,509	5,364,048	23,147,539	1,868,033	3,784	118,195	1,990,012
6/30/2009	3,334,540	10,237,490	16,278	2,928,189	5,888,314	22,404,811	1,701,371	3,736	110,092	1,815,199
6/30/2010	5,807,692	10,170,647	-	3,059,780	5,436,628	24,474,747	1,529,650	2,142	117,949	1,649,741
6/30/2011	3,989,616	10,627,225	-	3,108,701	4,971,771	22,697,313	1,343,649	-	155,748	1,499,397
6/30/2012	3,823,627	10,328,073	-	3,257,127	4,645,127	22,053,954	1,147,810	34,114	118,051	1,299,975
6/30/2013	4,454,713	10,040,895	-	3,392,868	4,408,721	22,297,197	828,129	11,644	154,180	993,953
6/30/2014	5,345,726	9,528,218	527,294	3,146,275	3,426,515	21,974,028	557,049	16,244	1,238,703	1,811,996
6/30/2015	4,016,198	9,292,501	534,226	2,906,853	2,870,550	19,620,328	227,165	-	-	227,165
6/30/2016	4,299,808	9,800,283	464,554	2,874,352	1,292,426	18,731,423	167,795	(1,116,087)	359,800	(588,492)

Source: Department's annual reports





DEBT CAPACITY INFORMATION

These schedules contain information to help the reader assess the affordability of the Department's current level of outstanding debt and ability to issue debt in the future.

City of San Bernardino Municipal Water Department
Water Fund Debt Service Coverage
Last Ten Fiscal Years

Fiscal Year Ended	Total Operating Revenue	Net Operating Expenses (Excluding) Depreciation	Net Operating Income (Loss)	Net Non-Operating Income/ (Expense)	Amount Available for Debt Service	Principal	Interest	Total Debt Service	Coverage Ratio
6/30/2007	28,232,366	24,004,364	4,228,002	3,487,628	7,715,630	523,644	582,772	1,106,416	6.97
6/30/2008	27,337,093	27,962,637	(625,544)	3,479,605	2,854,061	541,079	485,626	1,026,705	2.78
6/30/2009	27,258,954	27,710,041	(451,087)	2,853,518	2,402,431	559,106	603,368	1,162,474	2.07
6/30/2010	27,688,694	26,543,376	1,145,318	2,101,540	3,246,858	956,106	667,146	1,623,252	2.00
6/30/2011	33,027,707	29,785,780	3,241,927	2,025,029	5,266,956	1,352,148	548,318	1,900,466	2.77
6/30/2012	37,106,217	33,385,157	3,721,060	2,436,449	6,157,509	974,027	505,819	1,479,846	4.16
6/30/2013	37,868,846	31,924,821	5,944,025	2,492,448	8,436,473	1,227,491	547,616	1,775,107	4.75
6/30/2014	36,671,903	30,069,978	6,601,925	2,504,705	9,106,630	1,658,265	660,854	2,319,119	3.93
6/30/2015	33,121,128	30,139,458	2,981,670	2,702,953	5,684,623	1,748,054	570,434	2,318,488	2.45
6/30/2016	30,001,871	29,025,031	976,840	2,283,230	3,260,070	1,813,594	523,274	2,336,868	1.40

Source: Department's annual reports

City of San Bernardino Municipal Water Department
Sewer Fund Debt Service Coverage
Last Ten Fiscal Years

Fiscal Year Ended	Total Operating Revenue	Net Operating Expenses (Excluding) Depreciation	Net Operating Income (Loss)	Net Non-Operating Income/ (Expense)	Amount Available for Debt Service	Principal	Interest	Total Debt Service	Coverage Ratio
6/30/2007	21,002,484	16,703,113	4,299,371	(1,380,665)	2,918,706	3,761,442	2,003,864	5,765,306	0.51
6/30/2008	20,847,984	17,783,491	3,064,493	358,983	3,423,476	3,823,275	1,855,515	5,678,790	0.60
6/30/2009	21,208,021	16,516,497	4,691,524	(135,811)	4,555,713	4,197,317	1,687,518	5,884,835	0.77
6/30/2010	22,424,942	19,038,119	3,386,823	(19,598)	3,367,225	4,181,342	1,635,707	5,817,049	0.58
6/30/2011	23,433,833	17,725,542	5,708,291	(616,531)	5,091,760	2,130,378	3,706,195	5,836,573	0.87
6/30/2012	25,888,729	17,408,827	8,479,902	(462,183)	8,017,719	4,417,731	1,166,496	5,584,227	1.44
6/30/2013	26,414,654	17,888,476	8,526,178	(630,690)	7,895,488	4,724,227	757,010	5,481,237	1.44
6/30/2014	25,670,774	18,547,513	7,123,261	(1,129,169)	5,994,092	4,424,090	747,460	5,171,550	1.16
6/30/2015	24,734,425	16,749,778	7,984,647	1,098,877	9,083,524	4,629,425	568,888	5,198,313	1.75
6/30/2016	25,410,740	17,438,997	7,971,743	(224,119)	7,747,624	300,000	-	300,000	25.83

Source: Department's annual reports

DEMOGRAPHIC AND ECONOMIC INFORMATION

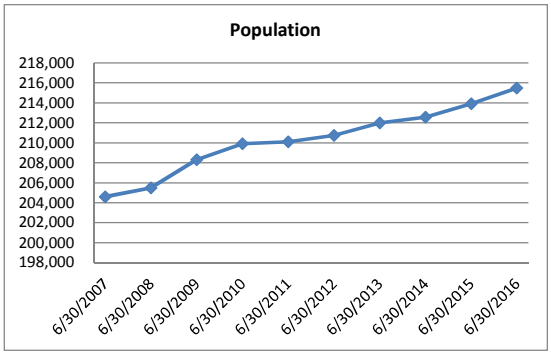
These schedules offer demographic and economic indicators to help the reader understand the environment within which the Department's financial activities take place.

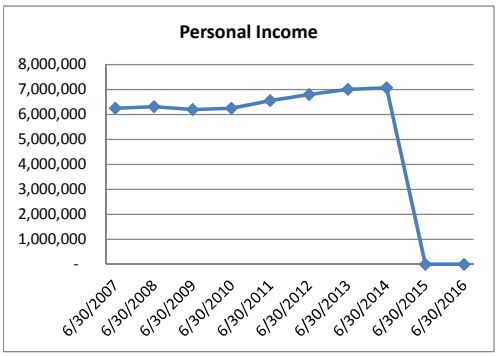
City of San Bernardino Municipal Water Department
Demographic Statistics
Last Ten Fiscal Years

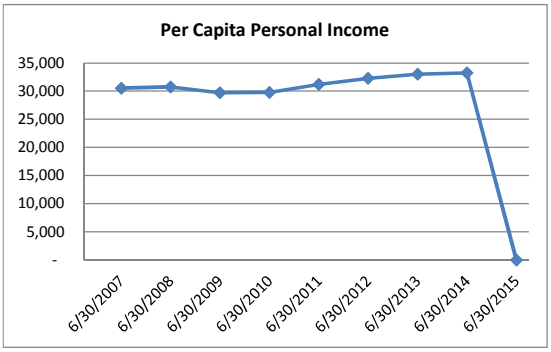
Fiscal Year Ended	Estimated Population (1)	Personal Income (In Thousands)	Per Capita Personal Income (2)	Unemployment Rate (3)
6/30/2007	204,620	6,248,072	30,535	5.80%
6/30/2008	205,493	6,318,704	30,749	8.30%
6/30/2009	208,318	6,198,919	29,757	12.90%
6/30/2010	209,924	6,256,785	29,805	13.70%
6/30/2011	210,108	6,559,152	31,218	13.00%
6/30/2012	210,753	6,807,533	32,301	11.50%
6/30/2013	211,994	7,001,102	33,025	9.80%
6/30/2014	212,584	7,070,119	33,258	8.20%
6/30/2015	213,933	n/a	n/a	7.30%
6/30/2016	215,491	n/a	n/a	5.40%

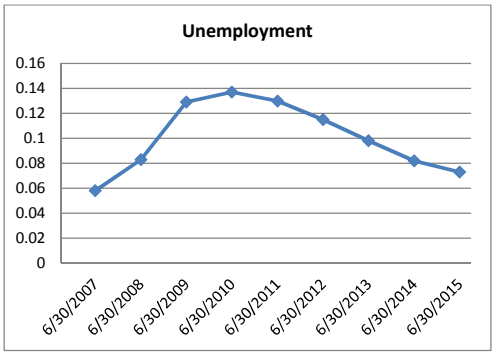
(1) California Department of Finance
(2) U.S. Department of Commerce, Bureau of Economic Analys for 2006-2013 (Riverside-San Bernardino MSA)
(3) State of California, Economic Development Department; City of San Bernardino Economic Development Dept

* Most recent complete year available. Information for 2015 and 2016 was unavailable.









City of San Bernardino Municipal Water Department
Major Employers
Current Year and Ten Years Ago

Employer	Fiscal Year 2016 Ranking	Fiscal Year 2016 Number of Employees	Fiscal Year 2007* Ranking	Fiscal Year 2007* Number of Employees
Stater Brothers	1	18,000		
County of San Bernardino	2	17,395	9	1000+
San Bernardino City Unified School District	3	12,629	7	1000+
California State University, San Bernardino	4	3,012	1	1000+
Saint Bernardine Medical Center	5	1,400		
Community Hospital of San Bernardino	6	1,200	4	1000+
City of San Bernardino	7	1,067	3	1000+
San Bernardino Community College District	8	862	8	1000+
The Sun Newspaper	9	526		
Blood Bank of San Bernardino	10	340		
State of California, Department of Transportation			2	1000+
Corona Regional Medical Center			5	1000+
Renzenberger, Inc.			6	1000+
San Bernardino Valley College			10	1000+

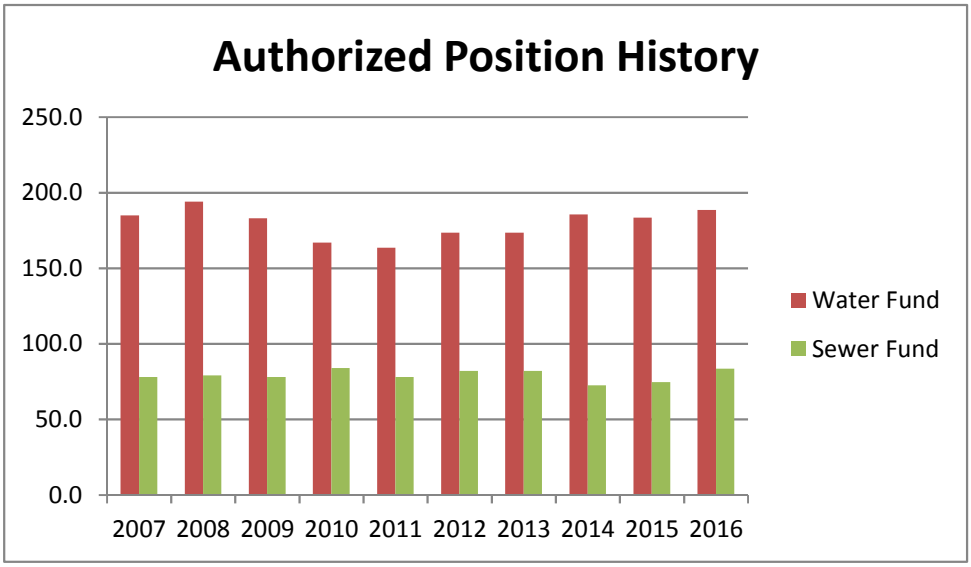
* Actual employment figures not available

Source: City of San Bernardino Economic Development Department and City's Annual Financial Report

City of San Bernardino Municipal Water Department
Authorized Positions History
Last Ten Fiscal Years

Year End	Water Fund	Sewer Fund	Total
2007	185.0	78.0	263.0
2008	194.0	79.0	273.0
2009	183.0	78.0	261.0
2010	167.0	84.0	251.0
2011	163.5	78.0	241.5
2012	173.5	82.0	255.5
2013	173.5	82.0	255.5
2014	185.5	72.5	258.0
2015	183.5	74.5	258.0
2016	188.5	83.5	272.0

Source: Department's records



REVENUE CAPACITY

These schedules contain information to help the reader assess the Department's significant revenue sources.

City of San Bernardino Municipal Water Department
Water Rates: Minimum Monthly Charge
Last Ten Fiscal Years

($/month)

Effective Date	1/2"	5/8"	3/4"	1"	1-1/2"	2"	3"	4"	6"	8"	10"	12"
7/1/2007	*	8.59	11.47	13.71	24.6	34.36	58.43	99.19	178.57	267.84	334.8	401.82
7/1/2008	*	8.88	11.84	14.16	25.41	35.49	60.35	102.46	184.47	276.67	345.84	415.08
7/1/2009	*	8.88	11.84	14.16	25.41	35.49	60.35	102.46	184.47	276.67	345.84	415.08
2/1/2010	10.55	10.55	13.00	17.90	30.15	44.85	79.15	128.15	250.70	397.75	569.30	*
1/1/2011	12.20	12.20	15.15	21.00	35.75	53.45	94.75	153.70	301.15	478.10	684.55	*
1/1/2012	12.90	12.90	16.15	22.60	38.80	58.20	103.50	168.20	330.00	524.15	750.65	*
7/1/2013	12.90	12.90	16.15	22.60	38.80	58.20	103.50	168.20	330.00	524.15	750.65	*
7/1/2014	12.90	12.90	16.15	22.60	38.80	58.20	103.50	168.20	330.00	524.15	750.65	*
7/1/2015	12.90	12.90	16.15	22.60	38.80	58.20	103.50	168.20	330.00	524.15	750.65	*
10/1/2016	16.09	16.09	20.15	28.19	48.40	72.60	129.12	197.36	411.68	653.88	936.44	*

* Information not reported

All water usage, except municipal, will be billed at the rate of $0.94 and $0.97 per 100 cubic feet effective July 1, 2007 and July 1, 2008, respectively, with no minimum allowance.

Source: Department's Records

City of San Bernardino Municipal Water Department
Water Connections and Revenues by User Type
Last Ten Fiscal Years

User Type	2016 Connections	2016 Revenue	2015 Connections	2015 Revenue	2014 Connections	2014 Revenue	2013 Connections	2013 Revenue
Single family	35,729	$15,688,749	35,695	$16,775,834	35,012	$18,583,708	34,913	$18,741,773
Multiple family	2,873	4,225,832	2,869	4,349,601	2,824	4,591,290	2,820	4,704,384
Commercial	3,092	4,913,942	3,097	6,332,882	3,085	6,566,344	3,082	6,800,310
Landscape	1,129	3,203,907	1,130	3,079,610	1,140	3,616,135	1,104	3,591,678
Other	1,905	677,180	1,791	679,606	1,703	913,810	1,663	599,210
Total all users	44,728	$28,709,610	44,582	$31,217,533	43,764	$34,271,287	43,582	$34,437,355

	2012 Connections	2012 Revenue	2011 Connections	2011 Revenue	2010 Connections	2010 Revenue	2009 Connections	2009 Revenue
Single family	34,716	$18,094,052	34,695	$15,665,580	34,542	$13,899,599	34,418	$13,943,441
Multiple family	2,801	4,510,962	2,806	4,025,079	2,799	3,442,271	2,801	3,547,811
Commercial	3,117	5,790,427	3,117	4,678,003	3,127	3,826,613	3,126	3,867,923
Landscape	1,151	3,321,846	1,149	2,745,990	1,158	2,367,514	1,173	2,454,044
Other	1,626	1,597,791	1,571	701,296	1,553	900,840	1,545	1,094,364
Total all users	43,411	$33,315,078	43,338	$27,815,948	43,179	$24,436,837	43,063	$24,907,583

	2008 Connections	2008 Revenue	2007 Connections	2007 Revenue
Single family	34,316	$13,419,093	34,842	$13,794,954
Multiple family	2,834	3,419,696	2,913	3,536,202
Commercial	4,003	5,765,993	3,954	5,807,406
Landscape	-	-	-	-
Other	1,820	1,518,693	1,755	1,795,878
Total all users	42,973	$24,123,475	43,464	$24,934,440

Source: Department's records

City of San Bernardino Municipal Water Department
Water Rates: Elevation Charges $ per HCF
Last Ten Fiscal Years

Effective Date	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
07/01/07	0.00	0.06	0.14	0.21	0.12	0.12
07/01/08	0.00	0.06	0.15	0.21	0.13	0.13
07/01/09	0.00	0.06	0.15	0.21	0.13	0.13
07/01/10	0.09	0.17	0.15	0.12	0.21	0.21
07/01/11	0.10	0.18	0.16	0.13	0.22	0.22
07/01/12	0.11	0.19	0.17	0.14	0.23	0.23
07/01/13	0.11	0.19	0.17	0.14	0.23	0.23
07/01/14	0.11	0.19	0.17	0.14	0.23	0.23
07/01/15	0.11	0.19	0.17	0.14	0.23	0.23
10/01/16	0.11	0.19	0.17	0.14	0.23	0.23

City of San Bernardino Municipal Water Department
Top Ten Water Customers
Fiscal Year 2016

Customer-2016	
City of San Bernardino	$ 742,984
SBCUSD	702,383
Cott Beverages	319,619
Housing Authority	213,981
California State University	185,267
W. Dean Weidner	135,168
County of San Bernardino	134,195
Pama Management Company	115,364
Hines	112,556
St. Bernardine Hospital	108,558
Top Ten Customers Total	$ 2,770,075
Total Water Revenue	$ 28,293,790
Top Ten Customers Percent of Total	9.79%

Note: Data not available for the fiscal period ended nine years prior.

City of San Bernardino Municipal Water Department
Sewage Treatment Rate History
Fiscal Years 1996 through 2016

	1996-2004	7/1/2004	1/1/2009	1/1/2010	2/1/2011	1/1/2012	10/1/2015	7/1/2016
Residential (monthly per EDU)	no change	14.50	15.25	16.00	17.00	18.50	20.65	22.38
Commercial:								
Commodity Charge (per HCF):								
Multi-family, mobile home parks	no change	0.83	0.90	0.95	1.10	1.25	1.36	1.48
Retail, commercial, light industrial	no change	1.70	1.80	1.90	2.00	2.10	2.28	2.47
Auto repair, car wash	no change	1.17	1.25	1.30	1.30	1.30	1.41	1.53
Offices, motels (w/o restaurants)	no change	1.32	1.40	1.50	1.50	1.50	1.63	1.77
Restaurants, hotels	no change	1.84	1.90	2.00	2.35	2.70	2.93	3.18
Laundromats	no change	1.15	1.25	1.30	1.40	1.50	1.63	1.77
Hospitals, convalescent homes	no change	0.84	0.90	0.95	1.15	1.35	1.46	1.58
Schools, churches, nursery schools	no change	0.62	0.65	0.70	0.90	1.10	1.19	1.29
Industrial:								
Discharge Flow (per million gallons)	no change	816.10	860.00	900.00	900.00	900.00	977.00	1,060.00
Biological Oxygen demand (per 1,000 lbs)	no change	264.91	280.00	292.00	330.00	360.00	391.00	424.00
Suspended Solids (per 1,000 lbs)	no change	577.41	610.00	640.00	640.00	640.00	694.00	753.00

Source: Department's records

City of San Bernardino Municipal Water Department
Sewage Treatment Connections and Revenue by User Type
Last Ten Fiscal Years

User Type	2016 Connections	2016 Revenue	2015 Connections	2015 Revenue	2014 Connections	2014 Revenue	2013 Connections	2013 Revenue
San Bernardino Residential	32,889	$8,746,617	32,874	$8,056,827	32,537	$8,111,634	32,563	$7,922,936
San Bernardino Nonresidential	5,377	7,125,053	5,344	7,240,533	5,410	8,033,072	5,447	8,332,214
East Valley Residential	18,477	4,008,039	18,480	4,093,625	18,404	4,149,836	18,925	4,188,434
East Valley Nonresidential	1,060	2,825,971	1,051	2,571,813	1,115	2,725,075	1,126	2,434,118
Loma Linda Residential	5,948	1,008,071	5,040	997,242	4,656	991,387	4,663	1,063,124
Loma Linda Nonresidential	591	1,308,474	588	1,294,612	592	1,330,102	585	1,549,643
Total all users	64,342	$25,022,225	63,377	$24,254,652	62,714	$25,341,106	63,309	$25,490,469

	2012 Connections	2012 Revenue	2011 Connections	2011 Revenue	2010 Connections	2010 Revenue	2009 Connections	2009 Revenue
San Bernardino Residential	32,571	$7,650,142	32,447	$7,053,263	32,307	$6,670,859	32,050	$6,288,804
San Bernardino Nonresidential	5,412	7,877,416	5,416	7,131,988	5,196	6,699,228	5,434	6,625,012
East Valley Residential	18,813	4,019,127	18,700	3,645,721	18,157	3,348,238	17,986	3,285,452
East Valley Nonresidential	1,128	2,492,375	1,138	2,070,233	1,132	2,185,072	1,146	2,139,543
Loma Linda Residential	4,443	933,648	4,648	870,734	4,688	839,451	4,692	781,159
Loma Linda Nonresidential	589	1,258,747	584	1,048,402	588	1,016,088	559	984,117
Total all users	62,956	$24,231,455	62,933	$21,820,341	62,068	$20,758,936	61,867	$20,104,087

	2008 Connections	2008 Revenue	2007 Connections	2007 Revenue
San Bernardino Residential	32,058	6,197,816	32,367	6,238,570
San Bernardino Nonresidential	5,491	6,570,125	5,528	6,654,231
East Valley Residential	17,956	3,221,455	18,085	3,231,282
East Valley Nonresidential	1,159	2,213,946	1,160	2,252,260
Loma Linda Residential	4,407	767,075	4,567	728,111
Loma Linda Nonresidential	576	1,011,795	584	950,227
Total all users	61,647	$19,982,212	62,291	$20,054,681

Source: Department's records

City of San Bernardino Municipal Water Department
Top Ten Sewage Treatment Customers
Fiscal Year 2016

Customers -2016	
SBCUSD	$ 260,086
Housing Authority	236,323
County of San Bernardino	186,730
Pama Management Company	134,567
St. Bernardine Hospital/CHW	131,408
City of San Bernardino	91,303
243 North Meridian LLC	80,887
Lido Condominiums	75,172
W Dean Weidner	72,205
Baghdady, Henry	70,226
Top Ten Customers Total	$ 1,338,907
Total Sewer Revenue	$ 25,030,568
Top Ten Customers Percent of Total	5.35%

Source: Department's records

Note: Data not available for the fiscal period ended nine years prior.

DavisFarr
CERTIFIED PUBLIC ACCOUNTANTS

Davis Farr LLP
2301 Dupont Drive | Suite 200 | Irvine, CA 92612
Main: 949.474.2020 | Fax: 949.263.5520

Board of Water Commissioners
Municipal Water Department of the City of
San Bernardino, California

We have audited the financial statements of the City of San Bernardino Municipal Water Department (Department) for the year ended June 30, 2016. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, *Government Auditing Standards* and Uniform Guidance, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated October 6, 2016. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Department are described in Note 1 to the financial statements. Governmental Accounting Standards Board Statement No. 72 was implemented during the year. We noted no transactions entered into by the Department during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the Department's financial statements were:

- Judgements involving the funded status of the pension liability
- Judgments involving the useful lives and depreciation methodology to use for capital assets
- Judgments concerning which capital project expenditures should be capitalized and depreciated versus expensed in the financial statements

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Adjustments detected as a result of the audit process have been communicated in a separate letter to the Board of Water Commissioners. Management has determined that the effects of the following unrecorded adjustments are immaterial, both individually and in the aggregate, to the financial statements taken as a whole:

- An entry to adjust expenses related to prior year for RIX billings
- An entry to adjust prior year payroll accruals related to worker's compensation
- An entry to adjust beginning equity for prepaid water

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated December 1, 2016.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Department's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Department's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to Management's Discussion and Analysis, which is required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the Schedule of Expenditures of Federal Awards, which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on the introductory section and the statistical section, which accompany the financial statements but are not RSI. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.

Restriction on Use

This information is intended solely for the use of the Board of Water Commissioners and management of the City of San Bernardino Municipal Water Department and is not intended to be, and should not be, used by anyone other than these specified parties.

Davis Farr LLP

Irvine, California
December 1, 2016

DavisFarr
CERTIFIED PUBLIC ACCOUNTANTS

Davis Farr LLP
2301 Dupont Drive | Suite 200 | Irvine, CA 92612
Main: 949.474.2020 | Fax: 949.263.5520

Board of Water Commissioners
Municipal Water Department of the City of
San Bernardino, California

Communications Regarding Internal Control

In planning and performing our audit of the financial statements of the City of San Bernardino Municipal Water Department (Department) as of and for the year ended June 30, 2016, in accordance with auditing standards generally accepted in the United States of America, we considered the Department's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Department's internal control. Accordingly, we do not express an opinion on the effectiveness of the Department's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be deficiencies, significant deficiencies, or material weaknesses and therefore there can be no assurance that all such deficiencies have been identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider the following deficiency to conform to that definition:

(1) <u>Adjustments Detected During the Audit</u>

As a result of the audit process, we detected certain immaterial adjusting journal entries. An entity's internal control plan should include adequate mitigating controls to prevent potential financial statement errors from becoming material.

<u>Recommendation</u>

To prevent the risk of a material adjustment, we recommend the Department develop controls to prevent the likelihood of a misstatement occurring. Such controls may include a month end and year end closing checklist to ensure all adjustments are captured.

<u>Management's Response</u>

We agree with the recommendation.

(2) Allowance for Doubtful Accounts and Customer Deposits Payable

Water accounts receivables over one year old are approximately 45% of the total receivable balance and Sewer accounts receivable over one year are approximately 25% of the total receivable balance. Additionally, the percentages of aged receivables for both water and sewer have grown during the year. We also noted the customer deposits payable had a large balance accumulated over the years. It is possible that some of the customer deposits can be applied against the unpaid receivables.

Recommendation

We recommend the Department perform a detailed review of aged accounts receivable, perform additional collection efforts, and considering writing off old balances that are determined to be uncollectible. The Department should also perform a detailed review of customer deposits payable to determine if amounts can be applied to customer receivable balances, refunded to the customer, or sent to the State through the escheating process.

Management's Response

We agree with the recommendation.

(3) Purchasing Policy

In our review of the Department's purchasing policy we noted it has not been updated since 2004.

Recommendation

We recommend the Department to review and update the purchasing policy. Management should consider setting bidding thresholds for professional service contracts and evaluating limits for requisitions as they may need to be increased.

Management's Response

We agree with the recommendation.

This communication is intended solely for the information and use of management, the Board of Water Commissioners, and others within the organization, and is not intended to be and should not be used by anyone other than these specified parties.

Davis Farr LLP

Irvine, California
December 1, 2016

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT

Single Audit Report on
Federal Awards

Year ended June 30, 2016

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Single Audit Report on Federal Awards

Year ended June 30, 2016

TABLE OF CONTENTS

	Page
Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*	1
Report on Compliance for Each Major Federal Program; Report on Internal Control over Compliance; and Report on the Schedule of Expenditures of Federal Awards Required by the Uniform Guidance	3
Schedule of Expenditures of Federal Awards	6
Notes to the Schedule of Expenditures of Federal Awards	7
Schedule of Findings and Questioned Costs	9
Summary Schedule of Prior Audit Findings	11

DavisFarr
CERTIFIED PUBLIC ACCOUNTANTS

Davis Farr LLP
2301 Dupont Drive | Suite 200 | Irvine, CA 92612
Main: 949.474.2020 | Fax: 949.263.5520

City of San Bernardino Municipal Water Department
Board of Water Commissioners

Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

Independent Auditors' Report

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, each major fund of the financial statements of the San Bernardino Municipal Water Department (Department), as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the Department's basic financial statements, and have issued our report thereon dated December 1, 2016.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Department's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Department's internal control. Accordingly, we do not express an opinion on the effectiveness of the Department's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified. We did identify a deficiency in internal control, described in the accompanying Schedule of Findings and Questioned Costs as item 2016-001 that we consider to be a significant deficiency in internal control over financial reporting.

Response to Findings

The Department's response to the finding identified in our audit is described in the accompanying Schedule of Findings and Questioned Costs. The Department's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Department's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Davis Farr LLP

Irvine, California
December 1, 2016

DavisFarr
CERTIFIED PUBLIC ACCOUNTANTS

Davis Farr LLP
2301 Dupont Drive | Suite 200 | Irvine, CA 92612
Main: 949.474.2020 | Fax: 949.263.5520

City of San Bernardino Municipal Water Department
Board of Water Commissioners

Report on Compliance For Each Major Federal Program; Report on Internal Control Over Compliance; and Report on the Schedule of Expenditures of Federal Awards Required by Required by the Uniform Guidance

Independent Auditors' Report

Report on Compliance for Each Major Federal Program

We have audited the San Bernardino Municipal Water Department's (Department) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the Department's major federal programs for the year ended June 30, 2016. The Department's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal wards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of the Department's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirement of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Department's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the Department's compliance.

Opinion on Each Major Federal Program

In our opinion, the Department complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2016.

Report on Internal Control Over Compliance

Management of the Department is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Department's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Example Entity's internal control over compliance.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by Uniform Guidance

We have audited the financial statements of the Department as of and for the year ended June 30, 2016, and have issued our report thereon dated December 1, 2016 which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditure of federal awards is fairly stated in all material respects in relation to the financial statements as a whole.

Davis Farr LLP

Irvine, California
December 1, 2016

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Schedule of Expenditures of Federal Awards

Year ended June 30, 2016

Federal Grantor/ Program Title	Federal Domestic Assistance Number	Program Identification Number	Program Expenditures
Environmental Protection Agency			
Superfund State, Political Subdivision, and Indian Tribe Site-Specific Cooperative Agreements	66.802	V-00T73801-3	$ 76,279
Subtotal			76,279
CONSENT DECREE	66.000	#	
Operations and maintenance:			
Newmark			663,062
Muscoy			761,402
Site wide monitoring			108,591
Project management			214,719
Subtotal			1,747,774
Total Expenditures of Federal Awards			$ 1,824,053

A PIN number has not been assigned

See accompanying notes to the schedule of expenditures of federal awards.

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Notes to the Schedule of Expenditures of Federal Awards

Year ended June 30, 2016

(1) Summary of Significant Accounting Policies Applicable to the Schedule of Expenditures of Federal Awards

(a) Scope of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") includes the federal grant activity of the San Bernardino Municipal Water Department (the "SBMWD") under programs of the federal government for the year ended June 30, 2016. The information in this Schedule is presented in accordance with the requirements of the Uniform Guidance. Because the Schedule presents only a selected portion of the operations of the SBMWD, it is not intended to and does not present the financial position, changes in net assets or cash flows of the SBMWD.

(b) Basis of Accounting

Expenditures reported on the Schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance. Under the accrual basis of accounting, expenditures are recognized when incurred. Expenditures reported include any property or equipment acquisitions incurred under the federal program.

(c) Subrecipients

During the fiscal year ended June 30, 2016, there were no disbursements made to subrecipients.

(2) Background of Consent Decree

In 1996, the City of San Bernardino (City) filed a complaint against the United States of America, Department of the Army (Army) to recover damages, response costs and other available remedies relating to contamination alleged to have originated at a World War II Army installation known as Camp Ono. In March 2005, the United States Department Court, Central Department, entered judgment, in the form of a consent decree (Consent Decree), in the matter of City of San Bernardino v. United States of America. The consent decree settles the City's and the State's claims arising from the groundwater contamination allegedly caused by the Army. The Consent Decree contains a number of provisions obligating the City (through the Municipal Water Department) to operate and maintain the Newmark Groundwater Superfund site (Site). The Site consists of two operable units, the Newmark Operable Unit and the Muscoy Operable Unit. The Newmark Operable Unit was declared operational and functional in 1998.

(2) Background of Consent Decree, (Continued)

The Consent Decree provided for a payment of $69 million from the Army to the City for performance of the work outlined in the consent decree. Upon entry of the Consent Decree, the City, through the Department, received title to all facilities constructed by the United States Environmental Protection Agency (EPA) for the Site and agreed to operate and maintain the groundwater extraction and treatment system for a period of 50 years. The $69 million payment consisted of $59 million for operation and maintenance and $10 million for the construction of certain capital facilities that would be required in the future. The funds are subject to strict limitations, contained in the Consent Decree, as to how they may be spent.

Pursuant to the Consent Decree, $10 million, including interest earned, has been set aside to be used only for (i) funding construction of treatment and directly related transmission systems that expanded the Department's capacity to deliver potable water, and (ii) funding work performed by the Department to complete construction of the Muscoy Operable Unit extraction system. These "capital facility" funds may not be used for costs incurred to operate, maintain, repair or retrofit components of the Site extraction or treatment systems constructed by EPA. In September 2007, the Muscoy Operable Unit was declared operational and functional.

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Summary of Findings and Questioned Costs

Year ended June 30, 2016

Section I - Summary of Auditors' Results

Financial Statements

1. Type of auditors' report issued on whether the financial statements audited were prepared in accordance with GAAP:	Unmodified
2. Internal control over financial reporting:	
a. Material weakness(es) identified?	No
b. Significant deficiency(ies) identified?	Yes
3. Noncompliance material to the financial statements noted?	No

Federal Awards

1. Internal control over major programs:	
a. Material weakness(es) identified?	No
b. Significant deficiency(ies) identified?	None Reported
2. Type of auditors' report issued on compliance for major programs:	Unmodified
3. Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516 (a)?	No
4. Identification of major programs:	

CFDA Number	Name of Federal Program or Cluster
66.000	Environmental Protection Agency - Consent Decree

5. Dollar threshold used to distinguish between Type A and Type B programs:	$750,000
6. Auditee qualified as a low-risk auditee?	Yes

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Summary of Findings and Questioned Costs

Year ended June 30, 2016

Section II - Financial Statement Findings

(2016-001) Adjustments Detected During the Audit

As a result of the audit process, we detected a number of immaterial adjusting journal entries. An entity's internal control plan should include adequate mitigating controls to prevent potential financial statement errors from becoming material.

Recommendation

To ensure mitigate the risk of a material adjustment, we recommend the Department develop controls to prevent the likelihood of a misstatement occurring. Such controls may include a month end and year end closing checklist to ensure all adjustments are captured.

Views of Responsible Officials and Planned Corrective Actions

We agree with the recommendation.

Section III - Federal Award Findings and Questioned Costs

There are no federal award findings and questioned costs.

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

Summary Schedule of Prior Audit Findings

Year ended June 30, 2016

The following is the status of prior audit findings for the year ended June 30, 2015:

(2015-001) Adjustments Detected During the Audit

This finding has been repeated as finding 2016-001.

CITY OF SAN BERNARDINO
MUNICIPAL WATER DEPARTMENT
BOARD OF WATER COMMISSIONERS
STAFF REPORT

NOV 2 - 2016

TO: Stacey R. Aldstadt, General Manager

FROM: Terri A. Willoughby, Director of Finance

SUBJECT: **REPORT ON WATER DEPARTMENT INVESTMENTS – QUARTER ENDING SEPTEMBER 30, 2016**

DATE: November 9, 2016

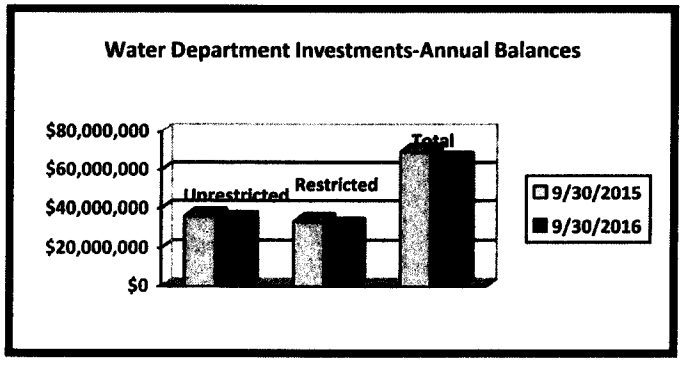
BACKGROUND:

On a quarterly basis, staff provides the Board of Water Commissioners (BOWC) a report regarding the cash and investments of the San Bernardino Municipal Water Department (Department). The Department's cash and investments are held in accounts in the Department's name separate from the City of San Bernardino's (City) cash and investments within the City Treasury.

The Department's checking account is maintained at Wells Fargo Bank, while its investments are held by the California Local Agency Investment Fund and Bank of New York. The assets held in trust by Bank of New York are actively managed by Chandler Asset Management. Consent Decree funds are also held by Bank of New York, but are managed by PFM Asset Management.

The total unrestricted cash and cash equivalents balance of $12,796,612 indicated in the attached report will be used to meet the Department's current commitments and estimated expenditure requirements for the near future. The market value of unrestricted cash and investments is $34,242,398 of which $3,035,469 is held for customer deposits.

The total restricted cash and investment balance of $30,981,204 consists primarily of consent decree funds, funds collected on behalf of the City for sewer collection, refuse and storm drains, and funds collected on behalf of East Valley Water District for improvement to the East Sewer Trunk Line. The chart below provides a comparison to balances at the same time period in the prior year.



Agenda Item No: 8

Summary:

The Department's investments follow the investment policy recommended by the State of California in keeping with safety, liquidity and yield and comply with the investment policy filed by the City Treasurer with the Mayor and Common Council.

RECOMMENDATION:

Staff recommends that the Board of Water Commissioners receive and file the Investment Report for the quarter ended September 30, 2016.

Respectfully submitted,

Terri A. Willoughby
Director of Finance

Attachments: San Bernardino Municipal Water Department Investment Report
Operating Portfolio (Chandler Asset Management)
Consent Decree Portfolio (PFM)

San Bernardino Municipal Water Department
Investment Report

For the Period Ended September 30, 2016

San Bernardino Municipal Water District
Summary of Cash and Investments
For the Period Ended September 30, 2016

	Book Value	Market Value	Percent of Portfolio	Current Yield
Operating Funds				
Cash and Cash Equivalents:				
Checking Accounts	$ 17,784,288	$ 17,784,288	41.77%	0.00%
Cash on Hand	7,200	7,200	0.02%	0.00%
Local Agency Investment Fund	3,761,086	3,761,086	8.83%	0.37%
Total Cash and Cash Equivalents	21,552,575	21,552,575	50.62%	0.06%
Investments (Operating Portfolio):				
Money Market Accounts	27,057	27,057	0.06%	0.02%
Federal Agencies	10,370,617	10,474,699	24.60%	1.38%
Asset Back Securities	1,509,344	1,509,683	3.55%	1.06%
Commercial Paper	418,964	418,964	0.98%	0.75%
Medium-Term Corporate Notes	2,128,293	2,150,778	5.05%	1.53%
U.S. Treasuries	6,342,592	6,443,547	15.13%	1.48%
Total Investments	20,796,868	21,024,730	49.38%	1.39%
Total Operating Funds	42,349,442	42,577,304	100.00%	0.71%
Consent Decree Portfolio				
Certificates of Deposit	2,149,356	2,154,375	9.69%	1.45%
Asset-Backed Security/Collateralized	829,909	833,471	3.75%	1.38%
Money Market Accounts	122,249	122,249	0.55%	0.00%
Federal Agency Mortgage-Backed Securities	1,487,754	1,500,831	6.75%	3.03%
Federal Agency Collateralized Mortage Oblig.	1,226,926	1,236,504	5.56%	2.04%
Federal Agency Notes/Bonds	3,836,757	3,852,518	17.33%	1.18%
Corporate Notes	4,232,744	4,252,115	19.13%	1.68%
Commercial Paper	793,854	798,413	3.59%	1.04%
U.S. Treasury Bill	-	-	0.00%	0.00%
U.S. Treasury Bonds	7,434,398	7,474,766	33.63%	1.23%
Total Consent Decree Portfolio	22,113,947	22,225,241	100.00%	1.37%
1998 Refunding Sewer COP Trust				
Money Market Accounts	47,787	47,787	11.35%	0.01%
Investment Agreement	373,269	373,269	88.65%	5.58%
Total 1998 Refunding Sewer COP Trust	421,056	421,056	100.00%	4.95%
Total Cash and Investments	$ 64,884,446	$ 65,223,602		

San Bernardino Municipal Water District
Cash and Investments by Fund
For the Period Ended September 30, 2016

	Market Value		
	Water Fund	Sewer Fund	Total
Unrestricted			
Cash and Cash Equivalents	$ 6,218,154	$ 6,578,459	$ 12,796,612
Investments	2,218,716	19,227,070	21,445,786
Total Unrestricted Cash and Investments	8,436,870	25,805,528	34,242,398
Restricted			
Cash and Cash Equivalents:			
Refuse Fees	543,826	-	543,826
Storm Drain Fees	4,465	-	4,465
Inland Valley Development Agency Fees	20,145	-	20,145
Sewer Collection System Fees	-	333,555	333,555
SAWPA Fees	-	12,975	12,975
East Valley Trunk Line Fees	-	7,840,995	7,840,995
Total Restricted Cash and Cash Equivalents	568,436	8,187,526	8,755,962
Investments:			
Consent Decree	22,225,241	-	22,225,241
Total Restricted Investments	22,225,241	-	22,225,241
Total Restricted Cash and Investments	22,793,678	8,187,526	30,981,204
Total Cash and Investments	$ 31,230,548	$ 33,993,054	$ 65,223,602

CHANDLER ASSET MANAGEMENT

Monthly Account Statement

San Bernardino Municipal Water Department

September 1, 2016 through September 30, 2016

Chandler Team
For questions about your account,
please call (800) 317-4747 or
Email operations@chandlerasset.com

Custodian
Bank of New York Mellon
Lauren Dehner
(904)645-1918

Information contained herein is confidential. We urge you to compare this statement to the one you receive from your qualified custodian. Prices are provided by IDC, an independent pricing source.

San Bernardino Municipal Water Department
Account #10183

Portfolio Summary

As of 9/30/2016

PORTFOLIO CHARACTERISTICS

Average Duration	2.44
Average Coupon	1.36 %
Average Purchase YTM	1.39 %
Average Market YTM	0.97 %
Average S&P/Moody Rating	AA+/Aaa
Average Final Maturity	2.62 yrs
Average Life	2.51 yrs

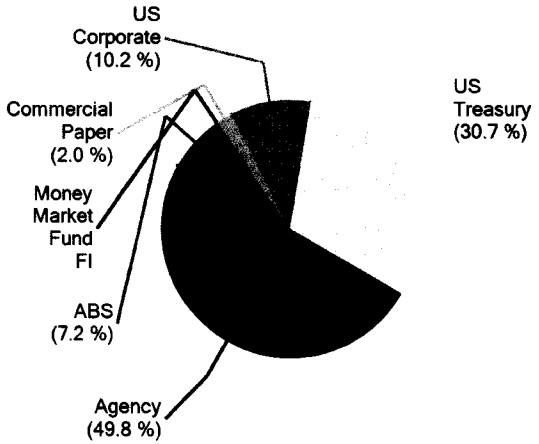
ACCOUNT SUMMARY

	Beg. Values as of 8/31/16	End Values as of 9/30/16
Market Value	20,984,442	21,024,730
Accrued Interest	65,263	58,931
Total Market Value	**21,049,705**	**21,083,661**
Income Earned	24,008	23,819
Cont/WD		0
Par	20,782,492	20,816,507
Book Value	20,765,358	20,796,868
Cost Value	20,747,426	20,784,084

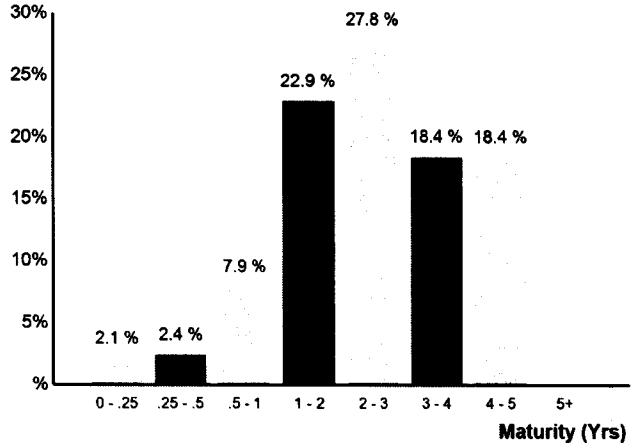
TOP ISSUERS

Issuer	% Portfolio
Government of United States	30.7 %
Federal Home Loan Bank	17.5 %
Federal National Mortgage Assoc	17.0 %
Federal Home Loan Mortgage Corp	13.5 %
Honda ABS	2.6 %
John Deere ABS	2.3 %
Johnson & Johnson	2.2 %
Bank of Tokyo-Mit UFJ	2.0 %
	87.8 %

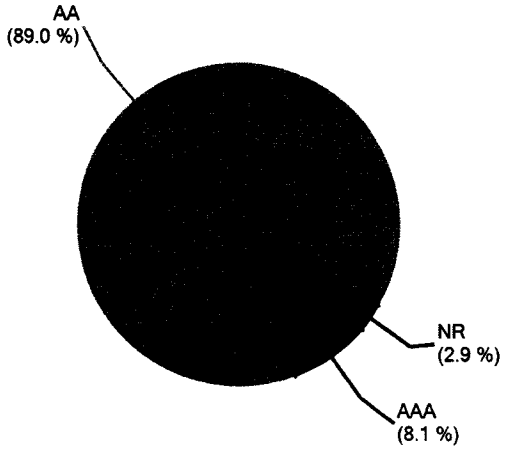
SECTOR ALLOCATION



MATURITY DISTRIBUTION



CREDIT QUALITY (S&P)



PERFORMANCE REVIEW

Total Rate of Return As of 9/30/2016	Current Month	Latest 3 Months	Year To Date	1 Yr	Annualized 3 Yrs	5 Yrs	10 Yrs	2/28/2013	Since 2/28/2013
San Bernardino Municipal Water Department	0.16 %	-0.07 %	2.12 %	1.59 %	1.48 %	N/A	N/A	1.19 %	4.33 %
BAML 1-5 Yr US Treasury/Agency Index	0.17 %	-0.17 %	2.18 %	1.51 %	1.43 %	N/A	N/A	1.15 %	4.17 %
BAML 1-5 Yr US Issuers Corp/Govt Rated AAA-A Index	0.14 %	-0.12 %	2.30 %	1.70 %	1.57 %	N/A	N/A	1.27 %	4.61 %

San Bernardino Municipal Water Department

September 30, 2016

COMPLIANCE WITH INVESTMENT POLICY

Assets managed by Chandler Asset Management are in full compliance with State law and with the Department's investment policy.

Category	Standard	Comment
Treasury Bills and Notes	No limitations	Complies
Federal Agencies	75% maximum - Callables	Complies
Local Agency Obligations	State of California only; 10% maximum	Complies
Banker's Acceptances	40% maximum; 30% per issuer; 180 day max maturity	Complies
Commercial Paper	A-1/P-1 rated; 25% maximum; 270 day max maturity	Complies
Negotiable CDs	30% maximum	Complies
Time Deposits	Collateralized; 25% maximum	Complies
Medium Term Notes	30% maximum; "AA"-rated issuer; 15% per issuer with Commercial Paper	Complies
Mortgage Mortgage and Asset-Backed Securities	AA-rated; 20% maximum	Complies
Money Market Funds	AAA/Aaa rated; fund assets > $500MM; 20% maximum; 10% per fund	Complies
LAIF	$50 million	Complies
Maximum maturity	5 years	Complies

San Bernardino Municipal Water Department
Account #10183

Reconciliation Summary

As of 9/30/2016

BOOK VALUE RECONCILIATION		
Beginning Book Value		**$20,765,357.58**
Acquisition		
+ Security Purchases	$521,389.50	
+ Money Market Fund Purchases	$79,473.38	
+ Money Market Contributions	$0.00	
+ Security Contributions	$0.00	
+ Security Transfers	$0.00	
Total Acquisitions		$600,862.88
Dispositions		
- Security Sales	$350,812.00	
- Money Market Fund Sales	$171,479.24	
- MMF Withdrawals	$0.00	
- Security Withdrawals	$0.00	
- Security Transfers	$0.00	
- Other Dispositions	$0.00	
- Maturites	$0.00	
- Calls	$0.00	
- Principal Paydowns	$48,978.79	
Total Dispositions		$571,270.03
Amortization/Accretion		
+/- Net Accretion	$557.96	
		$557.96
Gain/Loss on Dispositions		
+/- Realized Gain/Loss	$1,359.54	
		$1,359.54
Ending Book Value		**$20,796,867.93**

CASH TRANSACTION SUMMARY		
BEGINNING BALANCE		**$119,063.19**
Acquisition		
Contributions	$0.00	
Security Sale Proceeds	$350,812.00	
Accrued Interest Received	$213.89	
Interest Received	$30,466.34	
Dividend Received	$28.25	
Principal on Maturities	$0.00	
Interest on Maturities	$0.00	
Calls/Redemption (Principal)	$0.00	
Interest from Calls/Redemption	$0.00	
Principal Paydown	$48,978.79	
Total Acquisitions	$430,499.27	
Disposition		
Withdrawals	$0.00	
Security Purchase	$521,389.50	
Accrued Interest Paid	$1,115.63	
Total Dispositions	$522,505.13	
Ending Book Value		**$27,057.33**

Holdings Report

As of 9/30/16

CUSIP	Security Description	Par Value/Units	Purchase Date Book Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody/S&P Fitch	Maturity Duration
ABS									
477879AC4	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	2,065.42	08/27/2013 0.88 %	2,065.14 2,065.36	99.99 0.87 %	2,065.25 0.80	0.01 % (0.11)	Aaa / NR AAA	0.87 0.02
89231MAC9	Toyota Auto Receivables Owner 2014-A 0.67% Due 12/15/2017	53,739.56	03/11/2014 0.69 %	53,729.63 53,738.52	99.95 0.96 %	53,710.43 16.00	0.25 % (28.09)	Aaa / AAA NR	1.21 0.18
89231TAB6	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	73,808.44	08/18/2015 0.93 %	73,802.51 73,805.15	99.99 0.97 %	73,800.03 30.18	0.35 % (5.12)	Aaa / AAA NR	1.38 0.23
43814GAC4	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	81,216.72	05/13/2014 0.78 %	81,206.96 81,214.68	99.94 0.95 %	81,169.13 22.58	0.39 % (45.55)	Aaa / AAA NR	1.47 0.34
47787VAC5	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	113,619.69	04/02/2014 0.93 %	113,601.48 113,616.45	99.94 1.11 %	113,553.90 46.46	0.54 % (62.55)	Aaa / NR AAA	1.54 0.31
43814NAB1	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	185,000.00	02/16/2016 1.02 %	184,981.52 184,986.32	100.03 0.95 %	185,051.80 67.47	0.88 % 65.48	NR / AAA AAA	1.72 0.47
89236WAC2	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	225,000.00	02/24/2015 1.13 %	224,965.98 224,984.17	100.07 1.01 %	225,163.35 112.00	1.07 % 179.18	Aaa / AAA NR	2.38 0.64
47788NAB4	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	190,000.00	07/19/2016 1.10 %	189,988.41 189,989.23	99.99 1.10 %	189,983.09 92.04	0.90 % (6.14)	Aaa / NR AAA	2.38 0.92
43813NAC0	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	275,000.00	05/13/2015 1.05 %	274,957.79 274,973.16	100.04 0.99 %	275,105.33 79.44	1.31 % 132.17	NR / AAA AAA	2.39 0.75
65478WAB1	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	130,000.00	08/02/2016 1.08 %	129,994.88 129,995.14	99.93 1.14 %	129,913.94 61.82	0.62 % (81.20)	Aaa / NR AAA	2.62 1.00
47788MAC4	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	180,000.00	02/23/2016 1.37 %	179,971.67 179,975.68	100.09 1.31 %	180,166.86 108.80	0.86 % 191.18	Aaa / NR AAA	3.54 1.65
Total ABS		**1,509,449.83**	**1.06 %**	**1,509,265.97 1,509,343.86**	**1.06 %**	**1,509,683.11 637.59**	**7.16 % 339.25**	**Aaa / AAA Aaa**	**2.26 0.75**
AGENCY									
3137EADC0	FHLMC Note 1% Due 3/8/2017	150,000.00	03/19/2012 1.37 %	147,322.80 149,766.81	100.23 0.48 %	150,344.40 95.83	0.71 % 577.59	Aaa / AA+ AAA	0.44 0.44
313379FW4	FHLB Note 1% Due 6/9/2017	500,000.00	06/20/2012 1.02 %	499,395.00 499,916.29	100.26 0.62 %	501,319.00 1,555.56	2.39 % 1,402.71	Aaa / AA+ AAA	0.69 0.69
3137EADV8	FHLMC Note 0.75% Due 7/14/2017	400,000.00	06/29/2015 0.79 %	399,708.00 399,887.90	100.10 0.63 %	400,386.00 641.67	1.90 % 498.10	Aaa / AA+ AAA	0.79 0.78
3133EAY28	FFCB Note 0.83% Due 9/21/2017	375,000.00	09/18/2012 0.83 %	375,000.00 375,000.00	100.05 0.77 %	375,199.88 86.46	1.78 % 199.88	Aaa / AA+ AAA	0.98 0.97
3135G0ZL0	FNMA Note 1% Due 9/27/2017	385,000.00	Various 1.12 %	383,646.55 384,566.79	100.32 0.67 %	386,236.62 42.78	1.83 % 1,669.83	Aaa / AA+ AAA	0.99 0.99
3137EADP1	FHLMC Note 0.875% Due 3/7/2018	775,000.00	Various 1.20 %	763,499.00 771,527.24	100.08 0.82 %	775,607.60 452.08	3.68 % 4,080.36	Aaa / AA+ AAA	1.43 1.42
313378A43	FHLB Note 1.375% Due 3/9/2018	500,000.00	08/06/2013 1.48 %	497,605.00 499,250.76	100.82 0.80 %	504,076.50 420.14	2.39 % 4,825.74	Aaa / AA+ AAA	1.44 1.43

Holdings Report

As of 9/30/16

CUSIP	Security Description	Par Value/Units	Purchase Date Book Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody/S&P Fitch	Maturity Duration
AGENCY									
3130A4GJ5	FHLB Note 1.125% Due 4/25/2018	500,000.00	03/03/2015 1.17 %	499,240.00 499,621.99	100.49 0.81 %	502,430.00 2,437.50	2.39 % 2,808.01	Aaa / AA+ AAA	1.57 1.55
3135G0WJ8	FNMA Note 0.875% Due 5/21/2018	600,000.00	Various 1.12 %	592,971.00 597,685.44	100.09 0.82 %	600,532.80 1,895.83	2.86 % 2,847.36	Aaa / AA+ AAA	1.64 1.62
313375K48	FHLB Note 2% Due 9/14/2018	750,000.00	02/07/2014 1.50 %	766,672.50 757,088.55	102.10 0.91 %	765,786.00 708.33	3.64 % 8,697.45	Aaa / AA+ AAA	1.96 1.92
3135G0YT4	FNMA Note 1.625% Due 11/27/2018	800,000.00	Various 1.59 %	801,286.00 800,553.83	101.62 0.87 %	812,923.20 4,477.78	3.88 % 12,369.37	Aaa / AA+ AAA	2.16 2.11
3137EADG1	FHLMC Note 1.75% Due 5/30/2019	1,000,000.00	Various 1.62 %	1,005,690.20 1,003,334.44	102.09 0.95 %	1,020,881.01 5,881.94	4.87 % 17,546.57	Aaa / AA+ AAA	2.66 2.59
3135G0ZG1	FNMA Note 1.75% Due 9/12/2019	500,000.00	Various 1.80 %	498,905.00 499,358.71	102.16 1.00 %	510,807.50 461.80	2.42 % 11,448.79	Aaa / AA+ AAA	2.95 2.87
3135G0A78	FNMA Note 1.625% Due 1/21/2020	500,000.00	02/10/2015 1.67 %	499,040.00 499,358.05	101.80 1.07 %	508,995.50 1,579.86	2.42 % 9,637.45	Aaa / AA+ AAA	3.31 3.21
313383HU8	FHLB Note 1.75% Due 6/12/2020	500,000.00	10/08/2015 1.46 %	506,510.00 505,145.49	102.32 1.11 %	511,579.50 2,649.31	2.44 % 6,434.01	Aaa / AA+ NR	3.70 3.56
3135G0F73	FNMA Note 1.5% Due 11/30/2020	500,000.00	12/04/2015 1.87 %	491,150.00 492,603.93	101.35 1.17 %	506,728.50 2,520.83	2.42 % 14,124.57	Aaa / AA+ AAA	4.17 4.01
3130A7CV5	FHLB Note 1.375% Due 2/18/2021	395,000.00	02/17/2016 1.46 %	393,404.20 393,601.60	100.61 1.23 %	397,397.65 648.73	1.89 % 3,796.05	Aaa / AA+ AAA	4.39 4.24
3135G0J20	FNMA Note 1.375% Due 2/26/2021	250,000.00	04/20/2016 1.36 %	250,147.50 250,133.93	100.66 1.22 %	251,648.75 334.20	1.20 % 1,514.82	Aaa / AA+ AAA	4.41 4.26
3130A8QS5	FHLB Note 1.125% Due 7/14/2021	500,000.00	Various 1.26 %	496,726.25 496,761.80	99.27 1.28 %	496,327.00 1,203.12	2.36 % (434.80)	Aaa / AA+ AAA	4.79 4.63
3137EAEC9	FHLMC Note 1.125% Due 8/12/2021	500,000.00	Various 1.32 %	495,370.00 495,453.91	99.10 1.32 %	495,492.00 765.63	2.35 % 38.09	Aaa / AA+ AAA	4.87 4.71
Total Agency		**10,380,000.00**	**1.38 %**	**10,363,289.00 10,370,617.46**	**0.94 %**	**10,474,699.41 28,859.38**	**49.82 % 104,081.95**	**Aaa / AA+ Aaa**	**2.47 2.41**
COMMERCIAL PAPER									
06538BKS1	Bank of Tokyo Mitsubishi NY Discount CP 0.74% Due 10/26/2016	420,000.00	06/27/2016 0.75 %	418,964.00 418,964.00	99.75 0.75 %	418,964.00 820.17	1.99 % 0.00	P-1 / A-1 F-1	0.07 0.07
Total Commercial Paper		**420,000.00**	**0.75 %**	**418,964.00 418,964.00**	**0.75 %**	**418,964.00 820.17**	**1.99 % 0.00**	**P-1 / A-1 F-1**	**0.07 0.07**

Holdings Report

As of 9/30/16

CUSIP	Security Description	Par Value/Units	Purchase Date Book Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody/S&P Fitch	Maturity Duration
MONEY MARKET FUND FI									
316175603	Fidelity Institutional Government MMKT Fund #657	27,057.33	Various 0.02 %	27,057.33 27,057.33	1.00 0.02 %	27,057.33 0.00	0.13 % 0.00	Aaa / AAA NR	0.00 0.00
Total Money Market Fund FI		**27,057.33**	**0.02 %**	**27,057.33 27,057.33**	**0.02 %**	**27,057.33 0.00**	**0.13 % 0.00**	**Aaa / AAA NR**	**0.00 0.00**
US CORPORATE									
30231GAA0	Exxon Mobil Corp Note 0.921% Due 3/15/2017	360,000.00	03/17/2014 0.92 %	360,000.00 360,000.00	99.98 0.95 %	359,943.84 147.36	1.71 % (56.16)	Aaa / AA+ NR	0.45 0.46
037833AJ9	Apple Inc Note 1% Due 5/3/2018	310,000.00	Various 1.09 %	308,621.60 309,561.09	99.86 1.09 %	309,567.86 1,274.45	1.47 % 6.77	Aa1 / AA+ NR	1.59 1.57
478160BR4	Johnson & Johnson Note 1.125% Due 3/1/2019	470,000.00	02/25/2016 1.13 %	469,943.60 469,954.62	100.34 0.98 %	471,598.00 440.63	2.24 % 1,643.38	Aaa / AAA AAA	2.42 2.38
084670BL1	Berkshire Hathaway Note 2.1% Due 8/14/2019	350,000.00	07/15/2015 2.00 %	351,305.50 350,919.82	102.24 1.30 %	357,827.75 959.58	1.70 % 6,907.93	Aa2 / AA A+	2.87 2.78
594918BG8	Microsoft Callable Note Cont. 10/03/20 2% Due 11/3/2020	300,000.00	Various 2.03 %	299,644.50 299,708.50	102.07 1.47 %	306,219.00 2,466.67	1.46 % 6,510.50	Aaa / AAA AA+	4.10 3.81
166764BG4	Chevron Corp Callable Note Cont 4/15/2021 2.1% Due 5/16/2021	340,000.00	05/20/2016 2.23 %	338,007.60 338,149.05	101.65 1.72 %	345,621.90 2,677.50	1.65 % 7,472.85	Aa2 / AA- NR	4.63 4.29
Total US Corporate		**2,130,000.00**	**1.53 %**	**2,127,522.80 2,128,293.08**	**1.23 %**	**2,150,778.35 7,966.19**	**10.24 % 22,485.27**	**Aa1 / AA+ AA+**	**2.64 2.52**
US TREASURY									
912828G79	US Treasury Note 1% Due 12/15/2017	200,000.00	12/11/2014 1.04 %	199,742.86 199,896.77	100.36 0.70 %	200,711.00 590.16	0.95 % 814.23	Aaa / AA+ AAA	1.21 1.20
912828UZ1	US Treasury Note 0.625% Due 4/30/2018	200,000.00	05/28/2013 0.92 %	197,164.73 199,091.20	99.84 0.73 %	199,671.80 523.10	0.95 % 580.60	Aaa / AA+ AAA	1.58 1.57
912828VQ0	US Treasury Note 1.375% Due 7/31/2018	250,000.00	07/30/2013 1.37 %	250,108.26 250,039.60	101.08 0.78 %	252,705.00 579.14	1.20 % 2,665.40	Aaa / AA+ AAA	1.83 1.81
912828RE2	US Treasury Note 1.5% Due 8/31/2018	200,000.00	02/12/2014 1.40 %	200,867.86 200,365.44	101.35 0.79 %	202,703.20 256.91	0.96 % 2,337.76	Aaa / AA+ AAA	1.92 1.89
912828B33	US Treasury Note 1.5% Due 1/31/2019	275,000.00	02/27/2014 1.47 %	275,419.86 275,198.95	101.54 0.83 %	279,221.80 694.97	1.33 % 4,022.85	Aaa / AA+ AAA	2.34 2.29
912828C24	US Treasury Note 1.5% Due 2/28/2019	800,000.00	Various 1.60 %	796,162.82 798,099.95	101.56 0.85 %	812,500.00 1,027.63	3.86 % 14,400.05	Aaa / AA+ AAA	2.41 2.37
912828D23	US Treasury Note 1.625% Due 4/30/2019	500,000.00	Various 1.55 %	501,838.92 500,963.82	101.94 0.87 %	509,687.50 3,400.14	2.43 % 8,723.68	Aaa / AA+ AAA	2.58 2.51

San Bernardino Municipal Water Department
Account #10183

Holdings Report

As of 9/30/16

CUSIP	Security Description	Par Value/Units	Purchase Date Book Yield	Cost Value Book Value	Mkt Price Mkt YTM	Market Value Accrued Int.	% of Port. Gain/Loss	Moody/S&P Fitch	Maturity Duration
US TREASURY									
912828D80	US Treasury Note 1.625% Due 8/31/2019	250,000.00	09/09/2014 1.76 %	248,409.04 249,067.85	102.11 0.89 %	255,263.75 347.89	1.21 % 6,195.90	Aaa / AA+ AAA	2.92 2.85
912828G61	US Treasury Note 1.5% Due 11/30/2019	575,000.00	Various 1.42 %	576,870.86 576,467.64	101.75 0.94 %	585,084.93 2,898.56	2.79 % 8,617.29	Aaa / AA+ AAA	3.17 3.08
912828J50	US Treasury Note 1.375% Due 2/29/2020	625,000.00	04/23/2015 1.38 %	624,806.78 624,864.14	101.31 0.98 %	633,178.75 735.93	3.01 % 8,314.61	Aaa / AA+ AAA	3.42 3.33
912828K58	US Treasury Note 1.375% Due 4/30/2020	300,000.00	05/06/2015 1.55 %	297,458.04 298,174.54	101.30 1.00 %	303,902.40 1,726.22	1.45 % 5,727.86	Aaa / AA+ AAA	3.58 3.47
912828XE5	US Treasury Note 1.5% Due 5/31/2020	500,000.00	Various 1.68 %	495,802.46 496,906.27	101.71 1.02 %	508,574.00 2,520.50	2.42 % 11,667.73	Aaa / AA+ AAA	3.67 3.55
912828XM7	US Treasury Note 1.625% Due 7/31/2020	625,000.00	Various 1.52 %	628,161.27 627,465.01	102.18 1.04 %	638,598.75 1,711.10	3.04 % 11,133.74	Aaa / AA+ AAA	3.84 3.71
912828L99	US Treasury Note 1.375% Due 10/31/2020	350,000.00	Various 1.68 %	344,923.05 345,794.19	101.17 1.08 %	354,088.00 2,013.93	1.69 % 8,293.81	Aaa / AA+ AAA	4.09 3.94
912828N89	US Treasury Note 1.375% Due 1/31/2021	700,000.00	Various 1.37 %	700,248.43 700,196.83	101.09 1.12 %	707,656.60 1,621.60	3.36 % 7,459.77	Aaa / AA+ AAA	4.34 4.19
Total US Treasury		**6,350,000.00**	**1.48 %**	**6,337,985.24 6,342,592.20**	**0.94 %**	**6,443,547.48 20,647.78**	**30.66 % 100,955.28**	**Aaa / AA+ Aaa**	**3.11 3.02**
TOTAL PORTFOLIO		**20,816,507.16**	**1.39 %**	**20,784,084.34 20,796,867.93**	**0.97 %**	**21,024,729.68 58,931.11**	**100.00 % 227,861.75**	**Aaa / AA+ Aaa**	**2.62 2.44**
TOTAL MARKET VALUE PLUS ACCRUED						**21,083,660.79**			

Transaction Ledger

8/31/16 Thru 9/30/16

Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
ACQUISITIONS										
Purchase	09/01/2016	316175603	2,643.75	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	2,643.75	0.00	2,643.75	0.00
Purchase	09/02/2016	316175603	28.25	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	28.25	0.00	28.25	0.00
Purchase	09/07/2016	316175603	3,390.63	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	3,390.63	0.00	3,390.63	0.00
Purchase	09/08/2016	316175603	2,500.00	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	2,500.00	0.00	2,500.00	0.00
Purchase	09/09/2016	316175603	3,437.50	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	3,437.50	0.00	3,437.50	0.00
Purchase	09/12/2016	316175603	4,375.00	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	4,375.00	0.00	4,375.00	0.00
Purchase	09/14/2016	316175603	7,500.00	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	7,500.00	0.00	7,500.00	0.00
Purchase	09/15/2016	316175603	1,657.80	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	1,657.80	0.00	1,657.80	0.00
Purchase	09/15/2016	316175603	210.00	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	210.00	0.00	210.00	0.00
Purchase	09/15/2016	316175603	135.24	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	135.24	0.00	135.24	0.00
Purchase	09/15/2016	316175603	276.13	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	276.13	0.00	276.13	0.00
Purchase	09/15/2016	316175603	204.00	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	204.00	0.00	204.00	0.00
Purchase	09/15/2016	316175603	2,130.11	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	2,130.11	0.00	2,130.11	0.00
Purchase	09/15/2016	316175603	11,231.58	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	11,231.58	0.00	11,231.58	0.00
Purchase	09/15/2016	316175603	11,753.70	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	11,753.70	0.00	11,753.70	0.00
Purchase	09/15/2016	316175603	13,352.00	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	13,352.00	0.00	13,352.00	0.00
Purchase	09/19/2016	316175603	155.71	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	155.71	0.00	155.71	0.00
Purchase	09/19/2016	316175603	10,772.40	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	10,772.40	0.00	10,772.40	0.00
Purchase	09/21/2016	316175603	1,556.25	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	1,556.25	0.00	1,556.25	0.00
Purchase	09/21/2016	316175603	238.33	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	238.33	0.00	238.33	0.00

Transaction Ledger

8/31/16 Thru 9/30/16

Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
ACQUISITIONS										
Purchase	09/27/2016	316175603	1,925.00	Fidelity Institutional Government MMKT Fund #657	1.000	0.01 %	1,925.00	0.00	1,925.00	0.00
Purchase	09/30/2016	3130A8QS5	375,000.00	FHLB Note 1.125% Due 7/14/2021	99.374	1.26 %	372,652.50	890.63	373,543.13	0.00
Purchase	09/30/2016	3137EAEC9	150,000.00	FHLMC Note 1.125% Due 8/12/2021	99.158	1.30 %	148,737.00	225.00	148,962.00	0.00
	Subtotal		**604,473.38**				**600,862.88**	**1,115.63**	**601,978.51**	**0.00**
TOTAL ACQUISITIONS			**604,473.38**				**600,862.88**	**1,115.63**	**601,978.51**	**0.00**
DISPOSITIONS										
Sale	09/30/2016	3137EADC0	350,000.00	FHLMC Note 1% Due 3/8/2017	100.232	0.47 %	350,812.00	213.89	351,025.89	1,359.54
Sale	09/30/2016	316175603	171,479.24	Fidelity Institutional Government MMKT Fund #657	1.000	0.02 %	171,479.24	0.00	171,479.24	0.00
	Subtotal		**521,479.24**				**522,291.24**	**213.89**	**522,505.13**	**1,359.54**
Paydown	09/15/2016	477879AC4	2,127.07	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	100.000		2,127.07	3.04	2,130.11	0.00
Paydown	09/15/2016	47787VAC5	11,135.93	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	100.000		11,135.93	95.65	11,231.58	0.00
Paydown	09/15/2016	47788MAC4	0.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	100.000		0.00	204.00	204.00	0.00
Paydown	09/15/2016	47788NAB4	0.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	100.000		0.00	276.13	276.13	0.00
Paydown	09/15/2016	65478WAB1	0.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	100.000		0.00	135.24	135.24	0.00
Paydown	09/15/2016	89231MAC9	11,717.15	Toyota Auto Receivables Owner 2014-A 0.67% Due 12/15/2017	100.000		11,717.15	36.55	11,753.70	0.00
Paydown	09/15/2016	89231TAB6	13,285.23	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	100.000		13,285.23	66.77	13,352.00	0.00
Paydown	09/15/2016	89236WAC2	0.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	100.000		0.00	210.00	210.00	0.00
Paydown	09/19/2016	43814GAC4	10,713.41	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	100.000		10,713.41	58.99	10,772.40	0.00
Paydown	09/19/2016	43814NAB1	0.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	100.000		0.00	155.71	155.71	0.00

Transaction Ledger

8/31/16 Thru 9/30/16

Transaction Type	Settlement Date	CUSIP	Quantity	Security Description	Price	Acq/Disp Yield	Amount	Interest Pur/Sold	Total Amount	Gain/Loss
DISPOSITIONS										
Paydown	09/21/2016	43813NAC0	0.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	100.000		0.00	238.33	238.33	0.00
	Subtotal		**48,978.79**				**48,978.79**	**1,480.41**	**50,459.20**	**0.00**
TOTAL DISPOSITIONS			**570,458.03**				**571,270.03**	**1,694.30**	**572,964.33**	**1,359.54**
OTHER TRANSACTIONS										
Interest	09/01/2016	478160BR4	470,000.00	Johnson & Johnson Note 1.125% Due 3/1/2019	0.000		2,643.75	0.00	2,643.75	0.00
Interest	09/07/2016	3137EADP1	775,000.00	FHLMC Note 0.875% Due 3/7/2018	0.000		3,390.63	0.00	3,390.63	0.00
Interest	09/08/2016	3137EADC0	500,000.00	FHLMC Note 1% Due 3/8/2017	0.000		2,500.00	0.00	2,500.00	0.00
Interest	09/09/2016	313378A43	500,000.00	FHLB Note 1.375% Due 3/9/2018	0.000		3,437.50	0.00	3,437.50	0.00
Interest	09/12/2016	3135G0ZG1	500,000.00	FNMA Note 1.75% Due 9/12/2019	0.000		4,375.00	0.00	4,375.00	0.00
Interest	09/14/2016	313375K48	750,000.00	FHLB Note 2% Due 9/14/2018	0.000		7,500.00	0.00	7,500.00	0.00
Interest	09/15/2016	30231GAA0	360,000.00	Exxon Mobil Corp Note 0.921% Due 3/15/2017	0.000		1,657.80	0.00	1,657.80	0.00
Interest	09/21/2016	3133EAY28	375,000.00	FFCB Note 0.83% Due 9/21/2017	0.000		1,556.25	0.00	1,556.25	0.00
Interest	09/27/2016	3135G0ZL0	385,000.00	FNMA Note 1% Due 9/27/2017	0.000		1,925.00	0.00	1,925.00	0.00
	Subtotal		**4,615,000.00**				**28,985.93**	**0.00**	**28,985.93**	**0.00**
Dividend	09/02/2016	316175603	121,706.94	Fidelity Institutional Government MMKT Fund #657	0.000		28.25	0.00	28.25	0.00
	Subtotal		**121,706.94**				**28.25**	**0.00**	**28.25**	**0.00**
TOTAL OTHER TRANSACTIONS			**4,736,706.94**				**29,014.18**	**0.00**	**29,014.18**	**0.00**

Income Earned

8/31/16 Thru 9/30/16

CUSIP	Security Description	Trade Date Settle Date Units	Book Value: Begin Book Value: Acq Book Value: Disp Book Value: End	Prior Accrued Inc. Received Ending Accrued Total Interest	Accr. Of Discount Amort. Of Premium Net Accret/Amort Income Earned	Unreal G/L Total Income
Fixed Income						
037833AJ9	Apple Inc		309,538.34	1,016.11	22.75	
	Note	Various	0.00	0.00	0.00	
	1% Due 05/03/2018	Various	0.00	1,274.45	22.75	0.00
		310,000.00	309,561.09	258.34	281.09	281.09
084670BL1	Berkshire Hathaway		350,946.18	347.08	0.00	
	Note	07/15/2015	0.00	0.00	26.36	
	2.1% Due 08/14/2019	07/20/2015	0.00	959.58	(26.36)	0.00
		350,000.00	350,919.82	612.50	586.14	586.14
166764BG4	Chevron Corp		338,116.16	2,082.50	32.89	
	Callable Note Cont 4/15/2021	05/20/2016	0.00	0.00	0.00	
	2.1% Due 05/16/2021	05/25/2016	0.00	2,677.50	32.89	0.00
		340,000.00	338,149.05	595.00	627.89	627.89
30231GAA0	Exxon Mobil Corp		360,000.00	1,528.86	0.00	
	Note	03/17/2014	0.00	1,657.80	0.00	
	0.921% Due 03/15/2017	03/20/2014	0.00	147.36	0.00	0.00
		360,000.00	360,000.00	276.30	276.30	276.30
3130A4GJ5	FHLB		499,602.13	1,968.75	19.86	
	Note	03/03/2015	0.00	0.00	0.00	
	1.125% Due 04/25/2018	03/04/2015	0.00	2,437.50	19.86	0.00
		500,000.00	499,621.99	468.75	488.61	488.61
3130A7CV5	FHLB		393,575.40	196.13	26.20	
	Note	02/17/2016	0.00	0.00	0.00	
	1.375% Due 02/18/2021	02/18/2016	0.00	648.73	26.20	0.00
		395,000.00	393,601.60	452.60	478.80	478.80
3130A8QS5	FHLB		124,092.64	183.59	16.66	
	Note	Various	372,652.50	(890.63)	0.00	
	1.125% Due 07/14/2021	Various	0.00	1,203.12	16.66	0.00
		500,000.00	496,761.80	128.90	145.56	145.56
313375K48	FHLB		757,386.80	6,958.33	0.00	
	Note	02/07/2014	0.00	7,500.00	298.25	
	2% Due 09/14/2018	02/10/2014	0.00	708.33	(298.25)	0.00
		750,000.00	757,088.55	1,250.00	951.75	951.75
313378A43	FHLB		499,207.86	3,284.72	42.90	
	Note	08/06/2013	0.00	3,437.50	0.00	
	1.375% Due 03/09/2018	08/07/2013	0.00	420.14	42.90	0.00
		500,000.00	499,250.76	572.92	615.82	615.82
313379FW4	FHLB		499,906.28	1,138.89	10.01	
	Note	06/20/2012	0.00	0.00	0.00	
	1% Due 06/09/2017	06/21/2012	0.00	1,555.56	10.01	0.00
		500,000.00	499,916.29	416.67	426.68	426.68

Income Earned

8/31/16 Thru 9/30/16

CUSIP	Security Description	Trade Date Settle Date Units	Book Value: Begin Book Value: Acq Book Value: Disp Book Value: End	Prior Accrued Inc. Received Ending Accrued Total Interest	Accr. Of Discount Amort. Of Premium Net Accret/Amort Income Earned	Unreal G/L Total Income
313383HU8	FHLB		505,259.84	1,920.14	0.00	
	Note	10/08/2015	0.00	0.00	114.35	
	1.75% Due 06/12/2020	10/09/2015	0.00	2,649.31	(114.35)	0.00
		500,000.00	505,145.49	729.17	614.82	614.82
3133EAY28	FFCB		375,000.00	1,383.33	0.00	
	Note	09/18/2012	0.00	1,556.25	0.00	
	0.83% Due 09/21/2017	09/21/2012	0.00	86.46	0.00	0.00
		375,000.00	375,000.00	259.38	259.38	259.38
3135G0A78	FNMA		499,342.09	902.78	15.96	
	Note	02/10/2015	0.00	0.00	0.00	
	1.625% Due 01/21/2020	02/11/2015	0.00	1,579.86	15.96	0.00
		500,000.00	499,358.05	677.08	693.04	693.04
3135G0F73	FNMA		492,458.05	1,895.83	145.88	
	Note	12/04/2015	0.00	0.00	0.00	
	1.5% Due 11/30/2020	12/07/2015	0.00	2,520.83	145.88	0.00
		500,000.00	492,603.93	625.00	770.88	770.88
3135G0J20	FNMA		250,136.43	47.74	0.00	
	Note	04/20/2016	0.00	0.00	2.50	
	1.375% Due 02/26/2021	04/21/2016	0.00	334.20	(2.50)	0.00
		250,000.00	250,133.93	286.46	283.96	283.96
3135G0WJ8	FNMA		597,569.13	1,458.34	116.31	
	Note	Various	0.00	0.00	0.00	
	0.875% Due 05/21/2018	Various	0.00	1,895.83	116.31	0.00
		600,000.00	597,685.44	437.49	553.80	553.80
3135G0YT4	FNMA		800,574.94	3,394.45	2.03	
	Note	Various	0.00	0.00	23.14	
	1.625% Due 11/27/2018	Various	0.00	4,477.78	(21.11)	0.00
		800,000.00	800,553.83	1,083.33	1,062.22	1,062.22
3135G0ZG1	FNMA		499,340.83	4,107.64	30.28	
	Note	Various	0.00	4,375.00	12.40	
	1.75% Due 09/12/2019	Various	0.00	461.80	17.88	0.00
		500,000.00	499,358.71	729.16	747.04	747.04
3135G0ZL0	FNMA		384,530.79	1,646.95	36.00	
	Note	Various	0.00	1,925.00	0.00	
	1% Due 09/27/2017	Various	0.00	42.78	36.00	0.00
		385,000.00	384,566.79	320.83	356.83	356.83
3137EADC0	FHLMC		499,075.13	2,402.78	144.14	
	Note	03/19/2012	0.00	2,713.89	0.00	
	1% Due 03/08/2017	03/20/2012	349,452.46	95.83	144.14	0.00
		150,000.00	149,766.81	406.94	551.08	551.08
3137EADG1	FHLMC		1,003,437.48	4,423.61	0.00	
	Note	Various	0.00	0.00	103.04	
	1.75% Due 05/30/2019	Various	0.00	5,881.94	(103.04)	0.00
		1,000,000.00	1,003,334.44	1,458.33	1,355.29	1,355.29

Income Earned

8/31/16 Thru 9/30/16

CUSIP	Security Description	Trade Date Settle Date Units	Book Value: Begin Book Value: Acq Book Value: Disp Book Value: End	Prior Accrued Inc. Received Ending Accrued Total Interest	Accr. Of Discount Amort. Of Premium Net Accret/Amort Income Earned	Unreal G/L Total Income
3137EADP1	FHLMC		771,327.67	3,277.61	199.57	
	Note	Various	0.00	3,390.63	0.00	
	0.875% Due 03/07/2018	Various	0.00	452.08	199.57	0.00
		775,000.00	771,527.24	565.10	764.67	764.67
3137EADV8	FHLMC		399,876.14	391.67	11.76	
	Note	06/29/2015	0.00	0.00	0.00	
	0.75% Due 07/14/2017	06/30/2015	0.00	641.67	11.76	0.00
		400,000.00	399,887.90	250.00	261.76	261.76
3137EAEC9	FHLMC		346,660.73	207.81	56.18	
	Note	Various	148,737.00	(225.00)	0.00	
	1.125% Due 08/12/2021	Various	0.00	765.63	56.18	0.00
		500,000.00	495,453.91	332.82	389.00	389.00
43813NAC0	Honda Auto Receivables		274,972.24	79.44	0.92	
	2015-2 A3	05/13/2015	0.00	238.33	0.00	
	1.04% Due 02/21/2019	05/20/2015	0.00	79.44	0.92	0.00
		275,000.00	274,973.16	238.33	239.25	239.25
43814GAC4	Honda Auto Receivables		91,927.51	25.56	0.58	
	2014-2 A3	05/13/2014	0.00	58.99	0.00	
	0.77% Due 03/19/2018	05/21/2014	10,713.41	22.58	0.58	0.00
		81,216.72	81,214.68	56.01	56.59	56.59
43814NAB1	Honda Auto Receivables		184,985.66	67.47	0.66	
	2016-1 A2	02/16/2016	0.00	155.71	0.00	
	1.01% Due 06/18/2018	02/25/2016	0.00	67.47	0.66	0.00
		185,000.00	184,986.32	155.71	156.37	156.37
477879AC4	John Deere Owner Trust		4,192.35	1.62	0.08	
	2013-B A3	08/27/2013	0.00	3.04	0.00	
	0.87% Due 08/15/2017	09/04/2013	2,127.07	0.80	0.08	0.00
		2,065.42	2,065.36	2.22	2.30	2.30
47787VAC5	John Deere Owner Trust		124,751.52	51.01	0.86	
	2014-A A3	04/02/2014	0.00	95.65	0.00	
	0.92% Due 04/16/2018	04/09/2014	11,135.93	46.46	0.86	0.00
		113,619.69	113,616.45	91.10	91.96	91.96
47788MAC4	John Deere Owner Trust		179,975.11	108.80	0.57	
	2016-A A3	02/23/2016	0.00	204.00	0.00	
	1.36% Due 04/15/2020	03/02/2016	0.00	108.80	0.57	0.00
		180,000.00	179,975.68	204.00	204.57	204.57
47788NAB4	John Deere Owner Trust		189,988.86	195.59	0.37	
	2016-B A2	07/19/2016	0.00	276.13	0.00	
	1.09% Due 02/15/2019	07/27/2016	0.00	92.04	0.37	0.00
		190,000.00	189,989.23	172.58	172.95	172.95
478160BR4	Johnson & Johnson		469,953.08	2,643.75	1.54	
	Note	02/25/2016	0.00	2,643.75	0.00	
	1.125% Due 03/01/2019	03/01/2016	0.00	440.63	1.54	0.00
		470,000.00	469,954.62	440.63	442.17	442.17

Income Earned

8/31/16 Thru 9/30/16

CUSIP	Security Description	Trade Date Settle Date Units	Book Value: Begin Book Value: Acq Book Value: Disp Book Value: End	Prior Accrued Inc. Received Ending Accrued Total Interest	Accr. Of Discount Amort. Of Premium Net Accret/Amort Income Earned	Unreal G/L Total Income
594918BG8	Microsoft		299,702.63	1,966.66	5.87	
	Callable Note Cont. 10/03/20	Various	0.00	0.00	0.00	
	2% Due 11/03/2020	Various	0.00	2,466.67	5.87	0.00
		300,000.00	299,708.50	500.01	505.88	505.88
65478WAB1	Nissan Auto Receivables Owner		129,994.99	81.14	0.15	
	2016-C A2A	08/02/2016	0.00	135.24	0.00	
	1.07% Due 05/15/2019	08/10/2016	0.00	61.82	0.15	0.00
		130,000.00	129,995.14	115.92	116.07	116.07
89231MAC9	Toyota Auto Receivables Owner		65,455.10	19.49	0.57	
	2014-A	03/11/2014	0.00	36.55	0.00	
	0.67% Due 12/15/2017	03/19/2014	11,717.15	16.00	0.57	0.00
		53,739.56	53,738.52	33.06	33.63	33.63
89231TAB6	Toyota Auto Receivables Owner		87,089.55	35.61	0.83	
	2015-C	08/18/2015	0.00	66.77	0.00	
	0.92% Due 02/15/2018	08/26/2015	13,285.23	30.18	0.83	0.00
		73,808.44	73,805.15	61.34	62.17	62.17
89236WAC2	Toyota Auto Receivables Owner		224,983.23	112.00	0.94	
	2015-A	02/24/2015	0.00	210.00	0.00	
	1.12% Due 02/15/2019	03/04/2015	0.00	112.00	0.94	0.00
		225,000.00	224,984.17	210.00	210.94	210.94
912828B33	US Treasury		275,205.96	358.70	0.00	
	Note	02/27/2014	0.00	0.00	7.01	
	1.5% Due 01/31/2019	02/28/2014	0.00	694.97	(7.01)	0.00
		275,000.00	275,198.95	336.27	329.26	329.26
912828C24	US Treasury		798,035.18	33.15	64.77	
	Note	Various	0.00	0.00	0.00	
	1.5% Due 02/28/2019	Various	0.00	1,027.63	64.77	0.00
		800,000.00	798,099.95	994.48	1,059.25	1,059.25
912828D23	US Treasury		500,994.55	2,737.77	0.00	
	Note	Various	0.00	0.00	30.73	
	1.625% Due 04/30/2019	Various	0.00	3,400.14	(30.73)	0.00
		500,000.00	500,963.82	662.37	631.64	631.64
912828D80	US Treasury		249,041.57	11.22	26.28	
	Note	09/09/2014	0.00	0.00	0.00	
	1.625% Due 08/31/2019	09/10/2014	0.00	347.89	26.28	0.00
		250,000.00	249,067.85	336.67	362.95	362.95
912828G61	US Treasury		576,505.76	2,191.60	17.78	
	Note	Various	0.00	0.00	55.90	
	1.5% Due 11/30/2019	Various	0.00	2,898.56	(38.12)	0.00
		575,000.00	576,467.64	706.96	668.84	668.84
912828G79	US Treasury		199,889.73	426.23	7.04	
	Note	12/11/2014	0.00	0.00	0.00	
	1% Due 12/15/2017	12/15/2014	0.00	590.16	7.04	0.00
		200,000.00	199,896.77	163.93	170.97	170.97

Income Earned

8/31/16 Thru 9/30/16

CUSIP	Security Description	Trade Date Settle Date Units	Book Value: Begin Book Value: Acq Book Value: Disp Book Value: End	Prior Accrued Inc. Received Ending Accrued Total Interest	Accr. Of Discount Amort. Of Premium Net Accret/Amort Income Earned	Unreal G/L Total Income
912828J50	US Treasury		624,860.86	23.74	3.28	
	Note	04/23/2015	0.00	0.00	0.00	
	1.375% Due 02/29/2020	04/24/2015	0.00	735.93	3.28	0.00
		625,000.00	624,864.14	712.19	715.47	715.47
912828K58	US Treasury		298,132.64	1,389.95	41.90	
	Note	05/06/2015	0.00	0.00	0.00	
	1.375% Due 04/30/2020	05/07/2015	0.00	1,726.22	41.90	0.00
		300,000.00	298,174.54	336.27	378.17	378.17
912828L99	US Treasury		345,709.56	1,621.61	84.63	
	Note	Various	0.00	0.00	0.00	
	1.375% Due 10/31/2020	Various	0.00	2,013.93	84.63	0.00
		350,000.00	345,794.19	392.32	476.95	476.95
912828N89	US Treasury		700,200.56	836.96	32.90	
	Note	Various	0.00	0.00	36.63	
	1.375% Due 01/31/2021	Various	0.00	1,621.60	(3.73)	0.00
		700,000.00	700,196.83	784.64	780.91	780.91
912828RE2	US Treasury		200,381.13	8.29	0.00	
	Note	02/12/2014	0.00	0.00	15.69	
	1.5% Due 08/31/2018	02/13/2014	0.00	256.91	(15.69)	0.00
		200,000.00	200,365.44	248.62	232.93	232.93
912828UZ1	US Treasury		199,043.87	421.20	47.33	
	Note	05/28/2013	0.00	0.00	0.00	
	0.625% Due 04/30/2018	05/29/2013	0.00	523.10	47.33	0.00
		200,000.00	199,091.20	101.90	149.23	149.23
912828VQ0	US Treasury		250,041.38	298.91	0.00	
	Note	07/30/2013	0.00	0.00	1.78	
	1.375% Due 07/31/2018	07/31/2013	0.00	579.14	(1.78)	0.00
		250,000.00	250,039.60	280.23	278.45	278.45
912828XE5	US Treasury		496,836.90	1,905.74	69.37	
	Note	Various	0.00	0.00	0.00	
	1.5% Due 05/31/2020	Various	0.00	2,520.50	69.37	0.00
		500,000.00	496,906.27	614.76	684.13	684.13
912828XM7	US Treasury		627,517.87	883.15	0.00	
	Note	Various	0.00	0.00	52.86	
	1.625% Due 07/31/2020	Various	0.00	1,711.10	(52.86)	0.00
		625,000.00	627,465.01	827.95	775.09	775.09
			20,227,330.39	**64,702.00**	**1,338.60**	
			521,389.50	**29,564.60**	**780.64**	
			398,431.25	**58,110.94**	**557.96**	**0.00**
TOTAL Fixed Income		**20,369,449.83**	**20,350,846.60**	**22,973.54**	**23,531.50**	**23,531.50**

Income Earned

8/31/16 Thru 9/30/16

CUSIP	Security Description	Trade Date Settle Date Units	Book Value: Begin Book Value: Acq Book Value: Disp Book Value: End	Prior Accrued Inc. Received Ending Accrued Total Interest	Accr. Of Discount Amort. Of Premium Net Accret/Amort Income Earned	Unreal G/L Total Income
Cash & Equivalent						
06538BKS1	Bank of Tokyo Mitsubishi NY		418,964.00	561.17	0.00	
	Discount CP	06/27/2016	0.00	0.00	0.00	
	0.74% Due 10/26/2016	06/28/2016	0.00	820.17	0.00	0.00
		420,000.00	418,964.00	259.00	259.00	259.00
316175603	Fidelity Institutional		119,063.19	0.00	0.00	
	Government MMKT Fund #657	03/15/2016	79,473.38	28.25	0.00	
		03/15/2016	171,479.24	0.00	0.00	0.00
		27,057.33	27,057.33	28.25	28.25	28.25
			538,027.19	**561.17**	**0.00**	
			79,473.38	**28.25**	**0.00**	
			171,479.24	**820.17**	**0.00**	**0.00**
TOTAL Cash & Equivalent		**447,057.33**	**446,021.33**	**287.25**	**287.25**	**287.25**
			20,765,357.58	**65,263.17**	**1,338.60**	
			600,862.88	**29,592.85**	**780.64**	
			569,910.49	**58,931.11**	**557.96**	**0.00**
TOTAL PORTFOLIO		**20,816,507.16**	**20,796,867.93**	**23,260.79**	**23,818.75**	**23,818.75**

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
10/15/2016	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	186.87	1.50	188.37
10/15/2016	Paydown	47787VAC5	113,619.69	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	18,145.60	87.11	18,232.71
10/15/2016	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
10/15/2016	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	5,771.70	56.59	5,828.29
10/15/2016	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	16,099.75	210.00	16,309.75
10/15/2016	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	0.00	172.58	172.58
10/15/2016	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,006.62	115.92	4,122.54
10/15/2016	Paydown	89231MAC9	53,739.56	Toyota Auto Receivables Owner 2014-A 0.67% Due 12/15/2017	11,667.97	30.00	11,697.97
10/18/2016	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	11,582.16	52.11	11,634.27
10/18/2016	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,720.29	155.71	8,876.00
10/21/2016	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	12,609.57	238.33	12,847.90
10/25/2016	Interest	3130A4GJ5	500,000.00	FHLB Note 1.125% Due 4/25/2018	0.00	2,812.50	2,812.50
10/26/2016	Maturity	06538BKS1	420,000.00	Bank of Tokyo Mitsubishi NY Discount CP 0.74% Due 10/26/2016	418,964.00	1,036.00	420,000.00
10/31/2016	Interest	912828K58	300,000.00	US Treasury Note 1.375% Due 4/30/2020	0.00	2,062.50	2,062.50
10/31/2016	Interest	912828L99	350,000.00	US Treasury Note 1.375% Due 10/31/2020	0.00	2,406.25	2,406.25
10/31/2016	Interest	912828D23	500,000.00	US Treasury Note 1.625% Due 4/30/2019	0.00	4,062.50	4,062.50
10/31/2016	Interest	912828UZ1	200,000.00	US Treasury Note 0.625% Due 4/30/2018	0.00	625.00	625.00
Oct 2016					**507,754.53**	**14,328.60**	**522,083.13**
11/03/2016	Interest	037833AJ9	310,000.00	Apple Inc Note 1% Due 5/3/2018	0.00	1,550.00	1,550.00
11/03/2016	Interest	594918BG8	300,000.00	Microsoft Callable Note Cont. 10/03/20 2% Due 11/3/2020	0.00	3,000.00	3,000.00
11/15/2016	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	187.05	1.36	188.41

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
11/15/2016	Paydown	47787VAC5	113,619.69	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	17,508.76	73.20	17,581.96
11/15/2016	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
11/15/2016	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	0.00	172.58	172.58
11/15/2016	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,010.20	112.34	4,122.54
11/15/2016	Paydown	89231MAC9	53,739.56	Toyota Auto Receivables Owner 2014-A 0.67% Due 12/15/2017	11,208.47	23.49	11,231.96
11/15/2016	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	5,593.72	52.16	5,645.88
11/15/2016	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	15,743.77	194.97	15,938.74
11/16/2016	Interest	166764BG4	340,000.00	Chevron Corp Callable Note Cont 4/15/2021 2.1% Due 5/16/2021	0.00	3,570.00	3,570.00
11/18/2016	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,729.16	148.37	8,877.53
11/18/2016	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	11,174.36	44.68	11,219.04
11/21/2016	Interest	3135G0WJ8	600,000.00	FNMA Note 0.875% Due 5/21/2018	0.00	2,625.00	2,625.00
11/21/2016	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	12,388.88	227.41	12,616.29
11/27/2016	Interest	3135G0YT4	800,000.00	FNMA Note 1.625% Due 11/27/2018	0.00	6,500.00	6,500.00
11/30/2016	Interest	3135G0F73	500,000.00	FNMA Note 1.5% Due 11/30/2020	0.00	3,750.00	3,750.00
11/30/2016	Interest	3137EADG1	1,000,000.00	FHLMC Note 1.75% Due 5/30/2019	0.00	8,750.00	8,750.00
11/30/2016	Interest	912828G61	575,000.00	US Treasury Note 1.5% Due 11/30/2019	0.00	4,312.50	4,312.50
11/30/2016	Interest	912828XE5	500,000.00	US Treasury Note 1.5% Due 5/31/2020	0.00	3,750.00	3,750.00
Nov 2016					**86,544.37**	**39,062.06**	**125,606.43**
12/09/2016	Interest	313379FW4	500,000.00	FHLB Note 1% Due 6/9/2017	0.00	2,500.00	2,500.00
12/12/2016	Interest	313383HU8	500,000.00	FHLB Note 1.75% Due 6/12/2020	0.00	4,375.00	4,375.00
12/15/2016	Interest	912828G79	200,000.00	US Treasury Note 1% Due 12/15/2017	0.00	1,000.00	1,000.00

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
12/15/2016	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	187.22	1.23	188.45
12/15/2016	Paydown	47787VAC5	113,619.69	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	16,871.18	59.77	16,930.95
12/15/2016	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
12/15/2016	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	5,415.59	47.87	5,463.46
12/15/2016	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	15,387.37	180.28	15,567.65
12/15/2016	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	0.00	172.58	172.58
12/15/2016	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,013.77	108.77	4,122.54
12/15/2016	Paydown	89231MAC9	53,739.56	Toyota Auto Receivables Owner 2014-A 0.67% Due 12/15/2017	10,748.45	17.23	10,765.68
12/18/2016	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	10,766.17	37.51	10,803.68
12/18/2016	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,738.04	141.02	8,879.06
12/21/2016	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	12,167.91	216.67	12,384.58
Dec 2016					**84,295.70**	**9,061.93**	**93,357.63**
01/14/2017	Interest	3130A8QS5	500,000.00	FHLB Note 1.125% Due 7/14/2021	0.00	2,812.51	2,812.51
01/14/2017	Interest	3137EADV8	400,000.00	FHLMC Note 0.75% Due 7/14/2017	0.00	1,500.00	1,500.00
01/15/2017	Paydown	47787VAC5	113,619.69	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	16,232.86	46.84	16,279.70
01/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,017.35	105.19	4,122.54
01/15/2017	Paydown	89231MAC9	53,739.56	Toyota Auto Receivables Owner 2014-A 0.67% Due 12/15/2017	10,287.88	11.23	10,299.11
01/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	5,237.30	43.72	5,281.02
01/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	187.41	1.09	188.50
01/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
01/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	0.00	172.58	172.58

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
01/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	15,030.56	165.92	15,196.48
01/17/2017	Paydown	89231MAC9	53,739.56	Toyota Auto Receivables Owner 2014-A 0.67% Due 12/15/2017	9,826.79	0.37	9,827.16
01/18/2017	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	10,357.59	30.60	10,388.19
01/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,746.92	133.67	8,880.59
01/21/2017	Interest	3135G0A78	500,000.00	FNMA Note 1.625% Due 1/21/2020	0.00	4,062.50	4,062.50
01/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	11,946.64	206.12	12,152.76
01/31/2017	Interest	912828B33	275,000.00	US Treasury Note 1.5% Due 1/31/2019	0.00	2,062.50	2,062.50
01/31/2017	Interest	912828N89	700,000.00	US Treasury Note 1.375% Due 1/31/2021	0.00	4,812.50	4,812.50
01/31/2017	Interest	912828VQ0	250,000.00	US Treasury Note 1.375% Due 7/31/2018	0.00	1,718.75	1,718.75
01/31/2017	Interest	912828XM7	625,000.00	US Treasury Note 1.625% Due 7/31/2020	0.00	5,078.13	5,078.13
Jan 2017					**91,871.30**	**23,168.22**	**115,039.52**
02/12/2017	Interest	3137EAEC9	500,000.00	FHLMC Note 1.125% Due 8/12/2021	0.00	2,812.50	2,812.50
02/14/2017	Interest	084670BL1	350,000.00	Berkshire Hathaway Note 2.1% Due 8/14/2019	0.00	3,675.00	3,675.00
02/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	187.59	0.95	188.54
02/15/2017	Paydown	47787VAC5	113,619.69	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	15,593.81	34.39	15,628.20
02/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
02/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	5,058.85	39.71	5,098.56
02/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	14,673.34	151.89	14,825.23
02/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	0.00	172.58	172.58
02/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,020.93	101.61	4,122.54
02/18/2017	Interest	3130A7CV5	395,000.00	FHLB Note 1.375% Due 2/18/2021	0.00	2,715.63	2,715.63

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
02/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,755.81	126.31	8,882.12
02/18/2017	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	9,948.59	23.96	9,972.55
02/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	11,725.07	195.77	11,920.84
02/26/2017	Interest	3135G0J20	250,000.00	FNMA Note 1.375% Due 2/26/2021	0.00	1,718.75	1,718.75
02/28/2017	Interest	912828C24	800,000.00	US Treasury Note 1.5% Due 2/28/2019	0.00	6,000.00	6,000.00
02/28/2017	Interest	912828D80	250,000.00	US Treasury Note 1.625% Due 8/31/2019	0.00	2,031.25	2,031.25
02/28/2017	Interest	912828J50	625,000.00	US Treasury Note 1.375% Due 2/29/2020	0.00	4,296.88	4,296.88
02/28/2017	Interest	912828RE2	200,000.00	US Treasury Note 1.5% Due 8/31/2018	0.00	1,500.00	1,500.00
Feb 2017					**69,963.99**	**25,801.18**	**95,765.17**
03/01/2017	Interest	478160BR4	470,000.00	Johnson & Johnson Note 1.125% Due 3/1/2019	0.00	2,643.75	2,643.75
03/07/2017	Interest	3137EADP1	775,000.00	FHLMC Note 0.875% Due 3/7/2018	0.00	3,390.63	3,390.63
03/08/2017	Maturity	3137EADC0	150,000.00	FHLMC Note 1% Due 3/8/2017	150,000.00	750.00	150,750.00
03/09/2017	Interest	313378A43	500,000.00	FHLB Note 1.375% Due 3/9/2018	0.00	3,437.50	3,437.50
03/12/2017	Interest	3135G0ZG1	500,000.00	FNMA Note 1.75% Due 9/12/2019	0.00	4,375.00	4,375.00
03/14/2017	Interest	313375K48	750,000.00	FHLB Note 2% Due 9/14/2018	0.00	7,500.00	7,500.00
03/15/2017	Maturity	30231GAA0	360,000.00	Exxon Mobil Corp Note 0.921% Due 3/15/2017	360,000.00	1,657.80	361,657.80
03/15/2017	Paydown	47787VAC5	113,619.69	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	14,954.01	22.44	14,976.45
03/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,024.52	98.02	4,122.54
03/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	4,880.25	35.83	4,916.08
03/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	187.76	0.82	188.58
03/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
03/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	0.00	172.58	172.58
03/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	14,315.70	138.19	14,453.89
03/18/2017	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	9,539.21	17.57	9,556.78
03/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,764.71	118.94	8,883.65
03/21/2017	Interest	3133EAY28	375,000.00	FFCB Note 0.83% Due 9/21/2017	0.00	1,556.25	1,556.25
03/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	11,503.21	185.61	11,688.82
03/27/2017	Interest	3135G0ZL0	385,000.00	FNMA Note 1% Due 9/27/2017	0.00	1,925.00	1,925.00
Mar 2017					**578,169.37**	**28,229.93**	**606,399.30**
04/15/2017	Paydown	47787VAC5	113,619.69	John Deere Owner Trust 2014-A A3 0.92% Due 4/16/2018	14,313.47	10.97	14,324.44
04/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
04/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	4,701.50	32.09	4,733.59
04/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	13,957.65	124.83	14,082.48
04/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	187.95	0.68	188.63
04/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	8,102.29	172.58	8,274.87
04/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,028.11	94.43	4,122.54
04/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,773.62	111.56	8,885.18
04/18/2017	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	9,129.42	11.45	9,140.87
04/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	11,281.06	175.64	11,456.70
04/25/2017	Interest	3130A4GJ5	500,000.00	FHLB Note 1.125% Due 4/25/2018	0.00	2,812.50	2,812.50
04/30/2017	Interest	912828UZ1	200,000.00	US Treasury Note 0.625% Due 4/30/2018	0.00	625.00	625.00
04/30/2017	Interest	912828D23	500,000.00	US Treasury Note 1.625% Due 4/30/2019	0.00	4,062.50	4,062.50

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
04/30/2017	Interest	912828K58	300,000.00	US Treasury Note 1.375% Due 4/30/2020	0.00	2,062.50	2,062.50
04/30/2017	Interest	912828L99	350,000.00	US Treasury Note 1.375% Due 10/31/2020	0.00	2,406.25	2,406.25
Apr 2017					**74,475.07**	**12,906.98**	**87,382.05**
05/03/2017	Interest	037833AJ9	310,000.00	Apple Inc Note 1% Due 5/3/2018	0.00	1,550.00	1,550.00
05/03/2017	Interest	594918BG8	300,000.00	Microsoft Callable Note Cont. 10/03/20 2% Due 11/3/2020	0.00	3,000.00	3,000.00
05/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,031.70	90.84	4,122.54
05/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	4,522.60	28.48	4,551.08
05/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	188.12	0.55	188.67
05/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
05/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	8,116.53	165.22	8,281.75
05/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	13,599.17	111.81	13,710.98
05/16/2017	Interest	166764BG4	340,000.00	Chevron Corp Callable Note Cont 4/15/2021 2.1% Due 5/16/2021	0.00	3,570.00	3,570.00
05/18/2017	Paydown	43814GAC4	81,216.72	Honda Auto Receivables 2014-2 A3 0.77% Due 3/19/2018	8,719.24	5.59	8,724.83
05/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,782.55	104.17	8,886.72
05/21/2017	Interest	3135G0WJ8	600,000.00	FNMA Note 0.875% Due 5/21/2018	0.00	2,625.00	2,625.00
05/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	11,058.61	165.86	11,224.47
05/27/2017	Interest	3135G0YT4	800,000.00	FNMA Note 1.625% Due 11/27/2018	0.00	6,500.00	6,500.00
05/30/2017	Interest	3135G0F73	500,000.00	FNMA Note 1.5% Due 11/30/2020	0.00	3,750.00	3,750.00
05/30/2017	Interest	3137EADG1	1,000,000.00	FHLMC Note 1.75% Due 5/30/2019	0.00	8,750.00	8,750.00
05/31/2017	Interest	912828G61	575,000.00	US Treasury Note 1.5% Due 11/30/2019	0.00	4,312.50	4,312.50
05/31/2017	Interest	912828XE5	500,000.00	US Treasury Note 1.5% Due 5/31/2020	0.00	3,750.00	3,750.00

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
May 2017					**59,018.52**	**38,684.02**	**97,702.54**
06/09/2017	Maturity	313379FW4	500,000.00	FHLB Note 1% Due 6/9/2017	500,000.00	2,500.00	502,500.00
06/12/2017	Interest	313383HU8	500,000.00	FHLB Note 1.75% Due 6/12/2020	0.00	4,375.00	4,375.00
06/15/2017	Interest	912828G79	200,000.00	US Treasury Note 1% Due 12/15/2017	0.00	1,000.00	1,000.00
06/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
06/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	4,343.54	25.01	4,368.55
06/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	13,240.29	99.11	13,339.40
06/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	188.30	0.41	188.71
06/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	8,130.79	157.85	8,288.64
06/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,035.29	87.25	4,122.54
06/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,791.47	96.78	8,888.25
06/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	10,835.86	156.28	10,992.14
Jun 2017					**549,565.54**	**8,701.69**	**558,267.23**
07/14/2017	Interest	3130A8QS5	500,000.00	FHLB Note 1.125% Due 7/14/2021	0.00	2,812.51	2,812.51
07/14/2017	Maturity	3137EADV8	400,000.00	FHLMC Note 0.75% Due 7/14/2017	400,000.00	1,500.00	401,500.00
07/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,038.89	83.65	4,122.54
07/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	4,164.32	21.68	4,186.00
07/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	188.49	0.27	188.76
07/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
07/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	8,145.08	150.47	8,295.55
07/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	12,880.98	86.76	12,967.74

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
07/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,800.41	89.38	8,889.79
07/21/2017	Interest	3135G0A78	500,000.00	FNMA Note 1.625% Due 1/21/2020	0.00	4,062.50	4,062.50
07/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	10,612.82	146.89	10,759.71
07/31/2017	Interest	912828B33	275,000.00	US Treasury Note 1.5% Due 1/31/2019	0.00	2,062.50	2,062.50
07/31/2017	Interest	912828N89	700,000.00	US Treasury Note 1.375% Due 1/31/2021	0.00	4,812.50	4,812.50
07/31/2017	Interest	912828VQ0	250,000.00	US Treasury Note 1.375% Due 7/31/2018	0.00	1,718.75	1,718.75
07/31/2017	Interest	912828XM7	625,000.00	US Treasury Note 1.625% Due 7/31/2020	0.00	5,078.13	5,078.13
Jul 2017					**448,830.99**	**22,829.99**	**471,660.98**
08/12/2017	Interest	3137EAEC9	500,000.00	FHLMC Note 1.125% Due 8/12/2021	0.00	2,812.50	2,812.50
08/14/2017	Interest	084670BL1	350,000.00	Berkshire Hathaway Note 2.1% Due 8/14/2019	0.00	3,675.00	3,675.00
08/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	0.00	204.00	204.00
08/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	3,984.95	18.49	4,003.44
08/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	12,521.27	74.73	12,596.00
08/15/2017	Paydown	477879AC4	2,065.42	John Deere Owner Trust 2013-B A3 0.87% Due 8/15/2017	188.66	0.14	188.80
08/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	8,159.39	143.07	8,302.46
08/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,042.49	80.05	4,122.54
08/18/2017	Interest	3130A7CV5	395,000.00	FHLB Note 1.375% Due 2/18/2021	0.00	2,715.63	2,715.63
08/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,809.35	81.98	8,891.33
08/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	10,389.49	137.69	10,527.18
08/26/2017	Interest	3135G0J20	250,000.00	FNMA Note 1.375% Due 2/26/2021	0.00	1,718.75	1,718.75
08/31/2017	Interest	912828D80	250,000.00	US Treasury Note 1.625% Due 8/31/2019	0.00	2,031.25	2,031.25

Cash Flow Report

From 09/30/2016

Payment Date	Transaction Type	CUSIP	Quantity	Security Description	Principal Amount	Income	Total Amount
08/31/2017	Interest	912828J50	625,000.00	US Treasury Note 1.375% Due 2/29/2020	0.00	4,296.88	4,296.88
08/31/2017	Interest	912828RE2	200,000.00	US Treasury Note 1.5% Due 8/31/2018	0.00	1,500.00	1,500.00
08/31/2017	Interest	912828C24	800,000.00	US Treasury Note 1.5% Due 2/28/2019	0.00	6,000.00	6,000.00
Aug 2017					**48,095.60**	**25,490.16**	**73,585.76**
09/01/2017	Interest	478160BR4	470,000.00	Johnson & Johnson Note 1.125% Due 3/1/2019	0.00	2,643.75	2,643.75
09/07/2017	Interest	3137EADP1	775,000.00	FHLMC Note 0.875% Due 3/7/2018	0.00	3,390.63	3,390.63
09/09/2017	Interest	313378A43	500,000.00	FHLB Note 1.375% Due 3/9/2018	0.00	3,437.50	3,437.50
09/12/2017	Interest	3135G0ZG1	500,000.00	FNMA Note 1.75% Due 9/12/2019	0.00	4,375.00	4,375.00
09/14/2017	Interest	313375K48	750,000.00	FHLB Note 2% Due 9/14/2018	0.00	7,500.00	7,500.00
09/15/2017	Paydown	65478WAB1	130,000.00	Nissan Auto Receivables Owner 2016-C A2A 1.07% Due 5/15/2019	4,046.10	76.44	4,122.54
09/15/2017	Paydown	89231TAB6	73,808.44	Toyota Auto Receivables Owner 2015-C 0.92% Due 2/15/2018	3,805.41	15.44	3,820.85
09/15/2017	Paydown	47788MAC4	180,000.00	John Deere Owner Trust 2016-A A3 1.36% Due 4/15/2020	10,599.98	204.00	10,803.98
09/15/2017	Paydown	47788NAB4	190,000.00	John Deere Owner Trust 2016-B A2 1.09% Due 2/15/2019	8,173.73	135.66	8,309.39
09/15/2017	Paydown	89236WAC2	225,000.00	Toyota Auto Receivables Owner 2015-A 1.12% Due 2/15/2019	12,161.13	63.05	12,224.18
09/18/2017	Paydown	43814NAB1	185,000.00	Honda Auto Receivables 2016-1 A2 1.01% Due 6/18/2018	8,818.31	74.56	8,892.87
09/21/2017	Maturity	3133EAY28	375,000.00	FFCB Note 0.83% Due 9/21/2017	375,000.00	1,556.25	376,556.25
09/21/2017	Paydown	43813NAC0	275,000.00	Honda Auto Receivables 2015-2 A3 1.04% Due 2/21/2019	10,165.86	128.68	10,294.54
09/27/2017	Maturity	3135G0ZL0	385,000.00	FNMA Note 1% Due 9/27/2017	385,000.00	1,925.00	386,925.00
Sep 2017					**817,770.52**	**25,525.96**	**843,296.48**
Total					**3,416,355.50**	**273,790.72**	**3,690,146.22**

Managed Account Summary Statement

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Transaction Summary - Managed Account

Opening Market Value	**$22,113,311.04**
Maturities/Calls	(40,753.67)
Principal Dispositions	(1,590,586.81)
Principal Acquisitions	1,610,610.81
Unsettled Trades	0.00
Change in Current Value	10,410.70
Closing Market Value	**$22,102,992.07**

Cash Transactions Summary - Managed Account

Maturities/Calls	0.00
Sale Proceeds	2,127,103.56
Coupon/Interest/Dividend Income	17,033.25
Principal Payments	40,753.67
Security Purchases	(2,209,750.78)
Net Cash Contribution	0.00
Reconciling Transactions	0.00

Earnings Reconciliation (Cash Basis) - Managed Account

Interest/Dividends/Coupons Received	23,884.96
Less Purchased Interest Related to Interest/Coupons	(75.97)
Plus Net Realized Gains/Losses	18,673.48
Total Cash Basis Earnings	**$42,482.47**

Cash Balance

Closing Cash Balance	**$122,249.33**

Earnings Reconciliation (Accrual Basis)

	Total
Ending Amortized Value of Securities	21,944,375.33
Ending Accrued Interest	74,067.83
Plus Proceeds from Sales	1,595,545.97
Plus Proceeds of Maturities/Calls/Principal Payments	40,753.67
Plus Coupons/Dividends Received	17,033.25
Less Cost of New Purchases	(1,610,686.78)
Less Beginning Amortized Value of Securities	(21,957,957.15)
Less Beginning Accrued Interest	(65,167.99)
Total Accrual Basis Earnings	**$37,964.13**

2016 OCT 10: 35

Portfolio Summary and Statistics

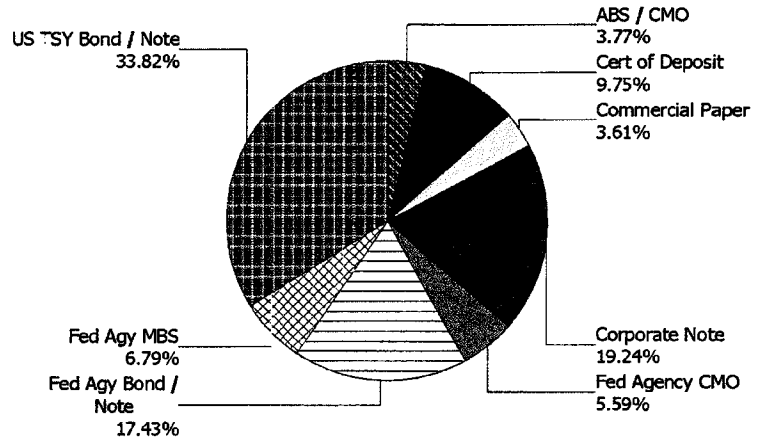
For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

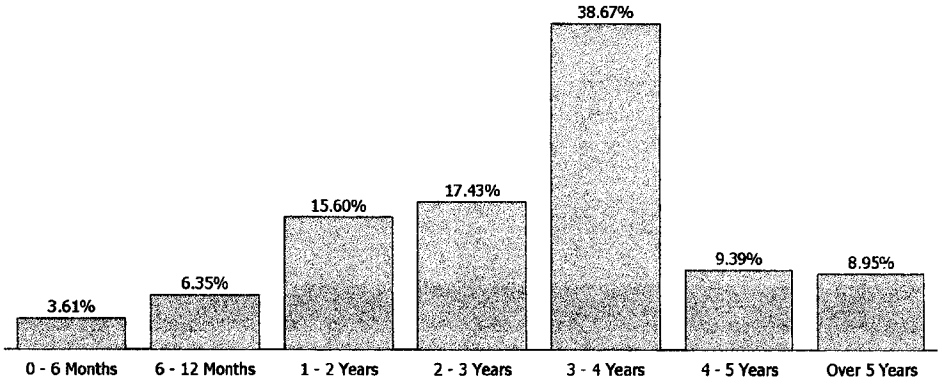
Account Summary

Description	Par Value	Market Value	Percent
U.S. Treasury Bond / Note	7,325,000.00	7,474,765.66	33.82
Federal Agency Mortgage-Backed Security	1,396,679.63	1,500,830.58	6.79
Federal Agency Collateralized Mortgage Obligation	1,191,437.51	1,236,504.18	5.59
Federal Agency Bond / Note	3,840,000.00	3,852,517.77	17.43
Corporate Note	4,165,000.00	4,252,115.42	19.24
Commercial Paper	800,000.00	798,413.20	3.61
Certificate of Deposit	2,150,000.00	2,154,374.70	9.75
Asset-Backed Security / Collateralized Mortgage Obligation	830,000.00	833,470.56	3.77
Managed Account Sub-Total	**21,698,117.14**	**22,102,992.07**	**100.00%**
Accrued Interest		74,067.83	
Total Portfolio	**21,698,117.14**	**22,177,059.90**	
Unsettled Trades	**0.00**	**0.00**	

Sector Allocation



Maturity Distribution



Characteristics

Yield to Maturity at Cost	1.50%
Yield to Maturity at Market	1.17%
Duration to Worst	2.85
Weighted Average Days to Maturity	1510

Managed Account Issuer Summary

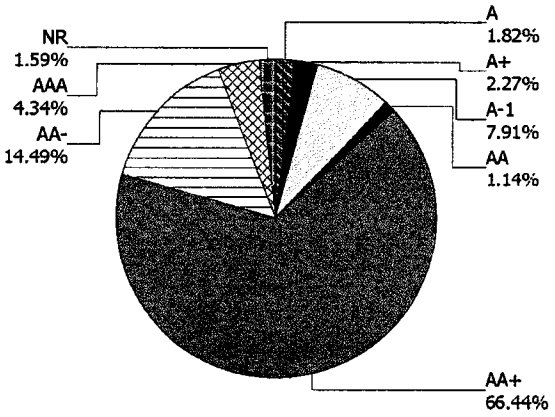
For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Issuer Summary

Issuer	Market Value of Holdings	Percent
APPLE INC	219,693.32	0.99
BANK OF AMERICA CREDIT CARD TRUST	401,621.72	1.82
BANK OF NEW YORK CO INC	402,384.80	1.82
BERKSHIRE HATHAWAY INC	251,449.75	1.14
BNP PARIBAS	399,069.20	1.81
CHEVRON CORP	495,669.73	2.24
CISCO SYSTEMS INC	414,173.20	1.87
EXXON MOBIL CORP	401,210.40	1.82
FANNIE MAE	3,448,541.82	15.60
FEDERAL HOME LOAN BANKS	1,197,256.80	5.42
FREDDIE MAC	1,567,813.12	7.09
GENERAL ELECTRIC CO	440,663.73	1.99
HYUNDAI AUTO RECEIVABLES	80,555.20	0.36
IBM CORP	245,295.47	1.11
JP MORGAN CHASE & CO	399,344.00	1.81
MICROSOFT CORP	477,232.82	2.16
NISSAN AUTO RECEIVABLES	351,293.64	1.59
RABOBANK NEDERLAND	499,746.50	2.26
ROYAL BANK OF CANADA	401,890.00	1.82
SKANDINAVISKA ENSKIDA BANKEN AB	450,675.00	2.04
TENNESSEE VALLEY AUTHORITY NOTES	376,240.79	1.70
TORONTO-DOMINION BANK	400,664.00	1.81
TOYOTA MOTOR CORP	402,886.20	1.82
UNITED STATES TREASURY	7,474,765.66	33.83
US BANCORP	902,855.20	4.08
Total	**$22,102,992.07**	**100.00%**

Credit Quality (S&P Ratings)



2016 OCT 10: 35

PFM

Managed Account Detail of Securities Held

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
U.S. Treasury Bond / Note											
US TREASURY NOTES DTD 10/31/2014 1.500% 10/31/2019	912828F62	175,000.00	AA+	Aaa	05/28/15	05/29/15	175,710.94	1.40	1,098.51	175,500.54	178,076.15
US TREASURY NOTES DTD 10/31/2014 1.500% 10/31/2019	912828F62	650,000.00	AA+	Aaa	09/03/15	09/04/15	653,351.56	1.37	4,080.16	652,506.35	661,425.70
US TREASURY NOTES DTD 02/28/2013 1.250% 02/29/2020	912828UQ1	275,000.00	AA+	Aaa	11/05/15	11/09/15	271,379.88	1.57	294.37	272,112.24	277,481.33
US TREASURY NOTES DTD 02/28/2013 1.250% 02/29/2020	912828UQ1	350,000.00	AA+	Aaa	10/08/15	10/09/15	349,042.97	1.31	374.65	349,252.40	353,158.05
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	300,000.00	AA+	Aaa	03/30/16	03/31/16	309,761.72	1.23	1,010.87	308,655.08	310,581.90
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	325,000.00	AA+	Aaa	03/02/16	03/04/16	334,458.01	1.32	1,095.11	333,250.18	336,463.73
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	400,000.00	AA+	Aaa	05/03/16	05/06/16	413,687.50	1.17	1,347.83	412,410.39	414,109.20
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	500,000.00	AA+	Aaa	02/01/16	02/03/16	514,140.63	1.35	1,684.78	512,114.35	517,636.50
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	600,000.00	AA+	Aaa	12/28/15	12/30/15	607,570.31	1.71	2,021.74	606,366.25	621,163.80
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	500,000.00	AA+	Aaa	06/28/16	06/29/16	509,140.63	0.93	588.74	508,589.28	506,133.00
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	750,000.00	AA+	Aaa	07/07/16	07/12/16	764,853.52	0.89	883.11	764,073.29	759,199.50
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	900,000.00	AA+	Aaa	05/25/16	05/31/16	901,300.78	1.34	1,059.74	901,205.42	911,039.40
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	1,000,000.00	AA+	Aaa	09/01/16	09/02/16	1,011,132.81	1.09	1,177.49	1,010,913.79	1,012,266.00
US TREASURY N/B DTD 12/31/2015 1.750% 12/31/2020	912828N48	600,000.00	AA+	Aaa	08/02/16	08/05/16	618,867.19	1.02	2,653.53	618,217.48	616,031.40

Managed Account Detail of Securities Held

For the Month Ending **September 30, 2016**

RECEIVED ACCOUNTING 2016 OCT 12 10:35

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Security Type Sub-Total		**7,325,000.00**					**7,434,398.45**	**1.23**	**19,370.63**	**7,425,167.04**	**7,474,765.66**
Federal Agency Mortgage-Backed Security											
FNMA POOL #AB5396 DTD 05/01/2012 3.000% 06/01/2022	31417B7J0	109,405.28	AA+	Aaa	08/15/12	08/20/12	115,388.38	1.84	273.51	112,938.66	114,988.03
FNMA POOL #AS4197 DTD 12/01/2014 3.500% 01/01/2030	3138WDUX7	328,773.56	AA+	Aaa	07/10/15	07/16/15	348,089.01	2.62	958.92	345,760.29	349,140.63
FNMA POOL #AB5434 DTD 05/01/2012 3.000% 06/01/2032	31417CBC8	230,539.02	AA+	Aaa	07/17/12	07/20/12	241,237.46	2.48	576.35	239,515.98	242,491.62
FNMA POOL #MA1084 DTD 05/01/2012 3.500% 06/01/2032	31418AF29	259,997.69	AA+	Aaa	07/17/12	07/20/12	277,100.68	2.76	758.33	273,662.72	277,217.06
FHLMC POOL #A86315 DTD 05/01/2009 4.500% 05/01/2039	312933AQ7	41,216.78	AA+	Aaa	10/11/11	10/13/11	43,280.83	4.05	154.56	43,258.62	45,306.47
FNMA POOL #AC1637 DTD 08/01/2009 5.000% 09/01/2039	31417KZB6	199,676.04	AA+	Aaa	12/15/14	12/18/14	222,139.56	3.92	831.98	222,139.59	221,939.35
FNMA POOL #AB3033 DTD 04/01/2011 4.500% 05/01/2041	31416YLP1	227,071.26	AA+	Aaa	10/06/11	10/13/11	240,518.14	3.99	851.52	238,691.34	249,747.42
Security Type Sub-Total		**1,396,679.63**					**1,487,754.06**	**3.03**	**4,405.17**	**1,475,967.20**	**1,500,830.58**
Federal Agency Collateralized Mortgage Obligation											
FNMA SERIES 2015-M1 ASQ2 DTD 01/15/2015 1.626% 02/01/2018	3136AMKW8	136,268.76	AA+	Aaa	01/15/15	01/30/15	137,630.44	1.26	184.64	136,752.59	136,757.80
FHLMC SERIES K717 A1 DTD 12/01/2014 2.342% 02/01/2021	3137BFDP3	131,059.09	AA+	Aaa	11/19/14	12/09/14	133,675.68	1.67	255.78	132,792.01	133,951.92
FHLMC SERIES K718 A1 DTD 05/01/2015 2.375% 09/01/2021	3137BHXX0	471,527.17	AA+	Aaa	05/13/15	05/27/15	480,943.57	1.68	933.23	478,623.01	488,179.01
FNMA SERIES 2015-MA AV1 DTD 03/01/2015 2.013% 07/01/2022	3136AMM30	172,499.61	AA+	Aaa	03/12/15	03/31/15	174,221.47	1.71	289.37	173,814.28	175,145.13
FREDDIE MAC SERIES 3842 DTD 04/01/2011 4.000% 04/01/2041	3137A9QP4	280,082.88	AA+	Aaa	05/05/15	05/08/15	300,454.54	3.35	933.61	300,454.53	302,470.32

Managed Account Detail of Securities Held

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Security Type Sub-Total		**1,191,437.51**					**1,226,925.70**	**2.04**	**2,596.63**	**1,222,436.42**	**1,236,504.18**
Federal Agency Bond / Note											
TENNESSEE VALLEY AUTHORITY NOTES DTD 09/27/2013 1.750% 10/15/2018	880591EQ1	370,000.00	AA+	Aaa	09/24/13	09/27/13	368,238.80	1.85	2,985.69	369,268.67	376,240.79
FANNIE MAE GLOBAL NOTES DTD 10/01/2013 1.625% 11/27/2018	3135G0YT4	300,000.00	AA+	Aaa	06/16/14	06/19/14	300,009.00	1.62	1,679.17	300,004.97	304,846.20
FANNIE MAE GLOBAL NOTES DTD 10/01/2013 1.625% 11/27/2018	3135G0YT4	370,000.00	AA+	Aaa	10/22/14	10/23/14	373,515.00	1.39	2,070.97	371,875.79	375,976.98
FNMA BENCHMARK NOTE DTD 02/23/2016 1.000% 02/26/2019	3135G0J53	400,000.00	AA+	Aaa	02/19/16	02/23/16	399,056.00	1.08	388.89	399,243.56	400,567.60
FHLMC REFERENCE NOTE DTD 07/20/2016 0.875% 07/19/2019	3137EAEB1	600,000.00	AA+	Aaa	07/19/16	07/20/16	598,548.00	0.96	1,035.42	598,642.40	597,905.40
FHLB GLOBAL NOTE DTD 08/04/2016 0.875% 08/05/2019	3130A8Y72	600,000.00	AA+	Aaa	08/03/16	08/04/16	598,848.00	0.94	831.25	598,908.04	597,782.40
FNMA NOTES DTD 09/02/2016 1.000% 08/28/2019	3135G0P49	600,000.00	AA+	Aaa	08/31/16	09/02/16	599,064.00	1.05	483.33	599,088.88	599,724.00
FHLB GLOBAL NOTES DTD 09/09/2016 1.000% 09/26/2019	3130A9EP2	600,000.00	AA+	Aaa	09/08/16	09/09/16	599,478.00	1.03	83.33	599,487.67	599,474.40
Security Type Sub-Total		**3,840,000.00**					**3,836,756.80**	**1.18**	**9,558.05**	**3,836,519.98**	**3,852,517.77**
Corporate Note											
US BANCORP (CALLABLE) DTD 05/08/2012 1.650% 05/15/2017	91159HHD5	500,000.00	A+	A1	07/25/12	07/30/12	510,680.00	1.19	3,116.67	501,252.92	501,456.00
TOYOTA MOTOR CREDIT CORP NOTE DTD 01/12/2015 1.450% 01/12/2018	89236TCA1	100,000.00	AA-	Aa3	01/07/15	01/12/15	99,863.00	1.50	318.19	99,940.79	100,374.90
IBM CORP GLOBAL NOTES DTD 02/08/2013 1.250% 02/08/2018	459200HK0	245,000.00	AA-	Aa3	02/05/13	02/08/13	243,877.90	1.35	450.87	244,689.03	245,295.47
BERKSHIRE HATHAWAY GLOBAL NOTE DTD 02/11/2013 1.550% 02/09/2018	084670BH0	250,000.00	AA	Aa2	01/29/13	02/11/13	249,652.50	1.58	559.72	249,902.98	251,449.75

RECEIVED ACCOUNTING
2016 OCT 10: 35

Managed Account Detail of Securities Held

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Corporate Note											
EXXON MOBIL CORP NOTES DTD 03/06/2015 1.305% 03/06/2018	30231GAL6	400,000.00	AA+	Aaa	03/04/15	03/06/15	400,000.00	1.31	362.50	400,000.00	401,210.40
MICROSOFT CORP GLOBAL NOTES DTD 05/02/2013 1.000% 05/01/2018	594918AS3	120,000.00	AAA	Aaa	04/25/13	05/02/13	119,924.40	1.01	500.00	119,975.63	119,977.32
APPLE INC GLOBAL NOTES DTD 05/03/2013 1.000% 05/03/2018	037833AJ9	220,000.00	AA+	Aa1	04/30/13	05/03/13	219,188.20	1.08	904.44	219,737.32	219,693.32
BANK OF NEW YORK MELLON CORP (CALLABLE) DTD 05/29/2015 1.600% 05/22/2018	06406HDB2	400,000.00	A	A1	05/22/15	05/29/15	399,964.00	1.60	2,293.33	399,979.70	402,384.80
CHEVRON CORP GLOBAL NOTES DTD 06/24/2013 1.718% 06/24/2018	166764AE0	315,000.00	AA-	Aa2	06/17/13	06/24/13	315,000.00	1.72	1,458.15	315,000.00	317,776.10
GENERAL ELECTRIC CAP CORP NOTES DTD 01/08/2010 5.500% 01/08/2020	36962G4J0	390,000.00	AA-	A1	03/20/15	03/25/15	450,968.70	2.05	4,945.42	432,290.91	440,663.73
CISCO SYSTEMS INC CORP NOTES DTD 06/17/2015 2.450% 06/15/2020	17275RAX0	400,000.00	AA-	A1	06/10/15	06/17/15	399,460.00	2.48	2,885.56	399,592.89	414,173.20
MICROSOFT CORP NOTES DTD 11/03/2015 2.000% 11/03/2020	594918BG8	350,000.00	AAA	Aaa	10/29/15	11/03/15	349,720.00	2.02	2,877.78	349,768.97	357,255.50
TOYOTA MOTOR CREDIT CORP DTD 04/08/2016 1.900% 04/08/2021	89236TCZ6	300,000.00	AA-	Aa3	04/05/16	04/08/16	299,445.00	1.94	2,739.17	299,496.06	302,511.30
CHEVRON CORP NOTES DTD 05/16/2016 2.100% 05/16/2021	166764BG4	175,000.00	AA-	Aa2	05/09/16	05/16/16	175,000.00	2.10	1,378.13	175,000.00	177,893.63
Security Type Sub-Total		**4,165,000.00**					**4,232,743.70**	**1.68**	**24,789.93**	**4,206,627.20**	**4,252,115.42**
Commercial Paper											
JP MORGAN SECURITIES LLC COMM PAPER -- 0.000% 12/27/2016	46640PMT7	400,000.00	A-1	P-1	04/01/16	04/04/16	396,944.33	1.04	0.00	399,004.33	399,344.00
BNP PARIBAS NY BRANCH COMM PAPER -- 0.000% 01/03/2017	09659BN30	400,000.00	A-1	P-1	04/08/16	04/08/16	396,910.00	1.04	0.00	398,924.22	399,069.20

Managed Account Detail of Securities Held

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	S&P Rating	Moody's Rating	Trade Date	Settle Date	Original Cost	YTM at Cost	Accrued Interest	Amortized Cost	Market Value
Security Type Sub-Total		**800,000.00**					**793,854.33**	**1.04**	**0.00**	**797,928.55**	**798,413.20**
Certificate of Deposit											
RABOBANK NEDERLAND NV CERT DEPOS DTD 04/27/2015 1.070% 04/21/2017	21684BXH2	500,000.00	A-1	P-1	04/22/15	04/27/15	500,000.00	1.07	2,377.78	500,000.00	499,746.50
US BANK NA CINCINNATI (CALLABLE) CD DTD 09/11/2014 1.375% 09/11/2017	90333VPF1	400,000.00	AA-	Aa1	09/09/14	09/11/14	399,356.00	1.41	305.56	399,797.28	401,399.20
SKANDINAVISKA ENSKILDA BANKEN NY CD DTD 11/17/2015 1.480% 11/16/2017	83050FBG5	450,000.00	A-1	P-1	11/16/15	11/17/15	450,000.00	1.48	5,901.50	450,000.00	450,675.00
ROYAL BANK OF CANADA NY CD DTD 03/15/2016 1.700% 03/09/2018	78009NZZ2	400,000.00	AA-	Aa3	03/11/16	03/15/16	400,000.00	1.69	415.56	400,000.00	401,890.00
TORONTO DOMINION BANK NY CD DTD 03/14/2016 1.720% 03/14/2018	89113E5E2	400,000.00	AA-	Aa1	03/14/16	03/16/16	400,000.00	1.72	3,841.33	400,000.00	400,664.00
Security Type Sub-Total		**2,150,000.00**					**2,149,356.00**	**1.45**	**12,841.73**	**2,149,797.28**	**2,154,374.70**
Asset-Backed Security / Collateralized Mortgage Obligation											
NISSAN ABS 2015-B A3 DTD 07/22/2015 1.340% 03/15/2020	65475WAD0	350,000.00	NR	Aaa	07/15/15	07/22/15	349,972.18	1.34	208.44	349,980.45	351,293.64
HYUNDAI ABS 2016-A A3 DTD 03/30/2016 1.560% 09/15/2020	44930UAD8	80,000.00	AAA	Aaa	03/22/16	03/30/16	79,984.48	1.57	55.47	79,986.41	80,555.20
BANK OF AMER CREDIT CARD TR 2015-A2 DTD 04/29/2015 1.360% 09/15/2020	05522RCU0	400,000.00	AAA	Aaa	04/22/15	04/29/15	399,952.02	1.36	241.78	399,964.80	401,621.72
Security Type Sub-Total		**830,000.00**					**829,908.68**	**1.38**	**505.69**	**829,931.66**	**833,470.56**
Managed Account Sub-Total		**21,698,117.14**					**21,991,697.72**	**1.50**	**74,067.83**	**21,944,375.33**	**22,102,992.07**
Securities Sub-Total		**$21,698,117.14**					**$21,991,697.72**	**1.50%**	**$74,067.83**	**$21,944,375.33**	**$22,102,992.07**
Accrued Interest											**$74,067.83**
Total Investments											**$22,177,059.90**

Managed Account Fair Market Value & Analytics

For the Month Ending **September 30, 2016**

RECEIVED ACCOUNTING 2016 OCT 14 AM 10:35

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst	YTM at Mkt
U.S. Treasury Bond / Note											
US TREASURY NOTES DTD 10/31/2014 1.500% 10/31/2019	912828F62	175,000.00	CITIGRP		101.76	178,076.15	2,365.21	2,575.61	2.99	2.99	0.92
US TREASURY NOTES DTD 10/31/2014 1.500% 10/31/2019	912828F62	650,000.00	CITIGRP		101.76	661,425.70	8,074.14	8,919.35	2.99	2.99	0.92
US TREASURY NOTES DTD 02/28/2013 1.250% 02/29/2020	912828UQ1	275,000.00	MERRILL		100.90	277,481.33	6,101.45	5,369.09	3.34	3.34	0.98
US TREASURY NOTES DTD 02/28/2013 1.250% 02/29/2020	912828UQ1	350,000.00	BARCLAYS		100.90	353,158.05	4,115.08	3,905.65	3.34	3.34	0.98
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	300,000.00	MORGANST		103.53	310,581.90	820.18	1,926.82	3.68	3.68	1.06
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	325,000.00	MORGANST		103.53	336,463.73	2,005.72	3,213.55	3.68	3.68	1.06
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	400,000.00	MORGANST		103.53	414,109.20	421.70	1,698.81	3.68	3.68	1.06
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	500,000.00	HSBC		103.53	517,636.50	3,495.87	5,522.15	3.68	3.68	1.06
US TREASURY NOTES DTD 07/31/2013 2.000% 07/31/2020	912828VP2	600,000.00	CSFB		103.53	621,163.80	13,593.49	14,797.55	3.68	3.68	1.06
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	500,000.00	CITIGRP		101.23	506,133.00	(3,007.63)	(2,456.28)	3.80	3.80	1.05
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	750,000.00	MERRILL		101.23	759,199.50	(5,654.02)	(4,873.79)	3.80	3.80	1.05
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	900,000.00	MERRILL		101.23	911,039.40	9,738.62	9,833.98	3.80	3.80	1.05
US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	1,000,000.00	MERRILL		101.23	1,012,266.00	1,133.19	1,352.21	3.80	3.80	1.05
US TREASURY N/B DTD 12/31/2015 1.750% 12/31/2020	912828N48	600,000.00	MORGANST		102.67	616,031.40	(2,835.79)	(2,186.08)	4.08	4.08	1.10
Security Type Sub-Total		**7,325,000.00**				**7,474,765.66**	**40,367.21**	**49,598.62**	**3.66**	**3.66**	**1.04**
Federal Agency Mortgage-Backed Security											
FNMA POOL #AB5396 DTD 05/01/2012 3.000% 06/01/2022	31417B7J0	109,405.28	NOMURA		105.10	114,988.03	(400.35)	2,049.37	2.08	2.75	1.10

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst	YTM at Mkt
Federal Agency Mortgage-Backed Security											
FNMA POOL #AS4197 DTD 12/01/2014 3.500% 01/01/2030	3138WDUX7	328,773.56	JPMCHASE		106.19	349,140.63	1,051.62	3,380.34	3.00	4.52	2.09
FNMA POOL #AB5434 DTD 05/01/2012 3.000% 06/01/2032	31417CBC8	230,539.02	JPMCHASE		105.18	242,491.62	1,254.16	2,975.64	3.00	5.54	2.04
FNMA POOL #MA1084 DTD 05/01/2012 3.500% 06/01/2032	31418AF29	259,997.69	GOLDMAN		106.62	277,217.06	116.38	3,554.34	4.03	5.34	2.23
FHLMC POOL #A86315 DTD 05/01/2009 4.500% 05/01/2039	312933AQ7	41,216.78	DEUTSCHE		109.92	45,306.47	2,025.64	2,047.85	3.82	4.40	2.21
FNMA POOL #AC1637 DTD 08/01/2009 5.000% 09/01/2039	31417KZB6	199,676.04	CITIGRP		111.15	221,939.35	(200.21)	(200.24)	2.60	4.21	2.28
FNMA POOL #AB3033 DTD 04/01/2011 4.500% 05/01/2041	31416YLP1	227,071.26	BARCLAYS		109.99	249,747.42	9,229.28	11,056.08	2.40	4.35	2.14
Security Type Sub-Total		**1,396,679.63**				**1,500,830.58**	**13,076.52**	**24,863.38**	**2.99**	**4.62**	**2.07**
Federal Agency Collateralized Mortgage Obligation											
FNMA SERIES 2015-M1 ASQ2 DTD 01/15/2015 1.626% 02/01/2018	3136AMKW8	136,268.76	MERRILL		100.36	136,757.80	(872.64)	5.21	1.12	1.16	1.22
FHLMC SERIES K717 A1 DTD 12/01/2014 2.342% 02/01/2021	3137BFDP3	131,059.09	BARCLAYS		102.21	133,951.92	276.24	1,159.91	2.34	3.59	1.69
FHLMC SERIES K718 A1 DTD 05/01/2015 2.375% 09/01/2021	3137BHXX0	471,527.17	MERRILL		103.53	488,179.01	7,235.44	9,556.00	3.46	4.07	1.48
FNMA SERIES 2015-MA AV1 DTD 03/01/2015 2.013% 07/01/2022	3136AMM30	172,499.61	MORGANST		101.53	175,145.13	923.66	1,330.85	2.59	5.07	1.69
FREDDIE MAC SERIES 3842 DTD 04/01/2011 4.000% 04/01/2041	3137A9QP4	280,082.88	NOMURA		107.99	302,470.32	2,015.78	2,015.79	3.38	4.18	2.06
Security Type Sub-Total		**1,191,437.51**				**1,236,504.18**	**9,578.48**	**14,067.76**	**2.94**	**3.87**	**1.65**
Federal Agency Bond / Note											
TENNESSEE VALLEY AUTHORITY NOTES DTD 09/27/2013 1.750% 10/15/2018	880591EQ1	370,000.00	MORGANST		101.69	376,240.79	8,001.99	6,972.12	1.99	1.99	0.91
FANNIE MAE GLOBAL NOTES DTD 10/01/2013 1.625% 11/27/2018	3135G0YT4	300,000.00	HSBC		101.62	304,846.20	4,837.20	4,841.23	2.11	2.11	0.87

RECEIVED ACCOUNTING
2016 OCT 1 10:36

Managed Account Fair Market Value & Analytics

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst	YTM at Mkt
Federal Agency Bond / Note											
FANNIE MAE GLOBAL NOTES DTD 10/01/2013 1.625% 11/27/2018	3135G0YT4	370,000.00	GOLDMAN		101.62	375,976.98	2,461.98	4,101.19	2.11	2.11	0.87
FNMA BENCHMARK NOTE DTD 02/23/2016 1.000% 02/26/2019	3135G0J53	400,000.00	JPMCHASE		100.14	400,567.60	1,511.60	1,324.04	2.37	2.37	0.94
FHLMC REFERENCE NOTE DTD 07/20/2016 0.875% 07/19/2019	3137EAEB1	600,000.00	TD SEC U		99.65	597,905.40	(642.60)	(737.00)	2.76	2.76	1.00
FHLB GLOBAL NOTE DTD 08/04/2016 0.875% 08/05/2019	3130A8Y72	600,000.00	WELLSFAR		99.63	597,782.40	(1,065.60)	(1,125.64)	2.80	2.80	1.01
FNMA NOTES DTD 09/02/2016 1.000% 08/28/2019	3135G0P49	600,000.00	GOLDMAN		99.95	599,724.00	660.00	635.12	2.86	2.86	1.02
FHLB GLOBAL NOTES DTD 09/09/2016 1.000% 09/26/2019	3130A9EP2	600,000.00	BARCLAYS		99.91	599,474.40	(3.60)	(13.27)	2.94	2.94	1.03
Security Type Sub-Total		**3,840,000.00**				**3,852,517.77**	**15,760.97**	**15,997.79**	**2.58**	**2.58**	**0.97**
Corporate Note											
US BANCORP (CALLABLE) DTD 05/08/2012 1.650% 05/15/2017	91159HHD5	500,000.00	BARCLAYS	04/15/17	100.29	501,456.00	(9,224.00)	203.08	0.48	0.54	1.18
TOYOTA MOTOR CREDIT CORP NOTE DTD 01/12/2015 1.450% 01/12/2018	89236TCA1	100,000.00	MERRILL		100.37	100,374.90	511.90	434.11	1.27	1.27	1.15
IBM CORP GLOBAL NOTES DTD 02/08/2013 1.250% 02/08/2018	459200HK0	245,000.00	HSBC		100.12	245,295.47	1,417.57	606.44	1.34	1.34	1.16
BERKSHIRE HATHAWAY GLOBAL NOTE DTD 02/11/2013 1.550% 02/09/2018	084670BH0	250,000.00	GOLDMAN		100.58	251,449.75	1,797.25	1,546.77	1.34	1.34	1.12
EXXON MOBIL CORP NOTES DTD 03/06/2015 1.305% 03/06/2018	30231GAL6	400,000.00	JPMCHASE		100.30	401,210.40	1,210.40	1,210.40	1.42	1.42	1.09
MICROSOFT CORP GLOBAL NOTES DTD 05/02/2013 1.000% 05/01/2018	594918AS3	120,000.00	MERRILL		99.98	119,977.32	52.92	1.69	1.56	1.56	1.01
APPLE INC GLOBAL NOTES DTD 05/03/2013 1.000% 05/03/2018	037833AJ9	220,000.00	GOLDMAN		99.86	219,693.32	505.12	(44.00)	1.57	1.57	1.09
BANK OF NEW YORK MELLON CORP (CALLABLE) DTD 05/29/2015 1.600% 05/22/2018	06406HDB2	400,000.00	GOLDMAN	04/22/18	100.60	402,384.80	2,420.80	2,405.10	1.56	1.53	1.23

PFM

Managed Account Fair Market Value & Analytics

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst	YTM at Mkt
Corporate Note											
CHEVRON CORP GLOBAL NOTES DTD 06/24/2013 1.718% 06/24/2018	166764AE0	315,000.00	BARCLAYS		100.88	317,776.10	2,776.10	2,776.10	1.70	1.70	1.20
GENERAL ELECTRIC CAP CORP NOTES DTD 01/08/2010 5.500% 01/08/2020	36962G4J0	390,000.00	GOLDMAN		112.99	440,663.73	(10,304.97)	8,372.82	3.00	3.00	1.42
CISCO SYSTEMS INC CORP NOTES DTD 06/17/2015 2.450% 06/15/2020	17275RAX0	400,000.00	MORGANST		103.54	414,173.20	14,713.20	14,580.31	3.52	3.52	1.46
MICROSOFT CORP NOTES DTD 11/03/2015 2.000% 11/03/2020	594918BG8	350,000.00	JPMCHASE		102.07	357,255.50	7,535.50	7,486.53	3.89	3.89	1.48
TOYOTA MOTOR CREDIT CORP DTD 04/08/2016 1.900% 04/08/2021	89236TCZ6	300,000.00	JPMCHASE		100.84	302,511.30	3,066.30	3,015.24	4.28	4.28	1.71
CHEVRON CORP NOTES DTD 05/16/2016 2.100% 05/16/2021	166764BG4	175,000.00	MERRILL		101.65	177,893.63	2,893.63	2,893.63	4.37	4.37	1.73
Security Type Sub-Total		**4,165,000.00**				**4,252,115.42**	**19,371.72**	**45,488.22**	**2.24**	**2.25**	**1.30**
Commercial Paper											
JP MORGAN SECURITIES LLC COMM PAPER -- 0.000% 12/27/2016	46640PMT7	400,000.00	JPMCHASE		99.84	399,344.00	2,399.67	339.67	0.24	0.24	0.67
BNP PARIBAS NY BRANCH COMM PAPER -- 0.000% 01/03/2017	09659BN30	400,000.00	BNP PARI		99.77	399,069.20	2,159.20	144.98	0.26	0.26	0.88
Security Type Sub-Total		**800,000.00**				**798,413.20**	**4,558.87**	**484.65**	**0.25**	**0.25**	**0.78**
Certificate of Deposit											
RABOBANK NEDERLAND NV CERT DEPOS DTD 04/27/2015 1.070% 04/21/2017	21684BXH2	500,000.00	GOLDMAN		99.95	499,746.50	(253.50)	(253.50)	0.55	0.55	1.14
US BANK NA CINCINNATI (CALLABLE) CD DTD 09/11/2014 1.375% 09/11/2017	90333VPF1	400,000.00	US BANK	08/11/17	100.35	401,399.20	2,043.20	1,601.92	0.86	0.86	0.97
SKANDINAVISKA ENSKILDA BANKEN NY CD DTD 11/17/2015 1.480% 11/16/2017	83050FBG5	450,000.00	GOLDMAN		100.15	450,675.00	675.00	675.00	1.13	1.13	0.04
ROYAL BANK OF CANADA NY CD DTD 03/15/2016 1.700% 03/09/2018	78009NZZ2	400,000.00	RBC CAP		100.47	401,890.00	1,890.00	1,890.00	1.43	1.43	1.34
TORONTO DOMINION BANK NY CD DTD 03/14/2016 1.720% 03/14/2018	89113E5E2	400,000.00	TD SEC U		100.17	400,664.00	664.00	664.00	1.44	1.44	1.60

Managed Account Fair Market Value & Analytics

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Security Type/Description Dated Date/Coupon/Maturity	CUSIP	Par	Broker	Next Call Date	Market Price	Market Value	Unreal G/L On Cost	Unreal G/L Amort Cost	Effective Duration	Duration to Worst	YTM at Mkt
Security Type Sub-Total		**2,150,000.00**				**2,154,374.70**	**5,018.70**	**4,577.42**	**1.06**	**1.06**	**1.00**
Asset-Backed Security / Collateralized Mortgage Obligation											
NISSAN ABS 2015-B A3 DTD 07/22/2015 1.340% 03/15/2020	65475WAD0	350,000.00	CITIGRP		100.37	351,293.64	1,321.46	1,313.19	1.38	2.55	1.20
HYUNDAI ABS 2016-A A3 DTD 03/30/2016 1.560% 09/15/2020	44930UAD8	80,000.00	MERRILL		100.69	80,555.20	570.72	568.79	2.00	3.38	1.36
BANK OF AMER CREDIT CARD TR 2015-A2 DTD 04/29/2015 1.360% 09/15/2020	05522RCU0	400,000.00	MERRILL		100.41	401,621.72	1,669.70	1,656.92	1.50	1.96	1.15
Security Type Sub-Total		**830,000.00**				**833,470.56**	**3,561.88**	**3,538.90**	**1.50**	**2.34**	**1.19**
Managed Account Sub-Total		**21,698,117.14**				**22,102,992.07**	**111,294.35**	**158,616.74**	**2.65**	**2.85**	**1.17**
Securities Sub-Total		**$21,698,117.14**				**$22,102,992.07**	**$111,294.35**	**$158,616.74**	**2.65**	**2.85**	**1.17%**
Accrued Interest						**$74,067.83**					
Total Investments						**$22,177,059.90**					

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Transaction Type Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
BUY										
08/31/16	09/02/16	FNMA NOTES DTD 09/02/2016 1.000% 08/28/2019	3135G0P49	600,000.00	(599,064.00)	0.00	(599,064.00)			
09/01/16	09/02/16	US TREASURY NOTES DTD 08/31/2015 1.375% 08/31/2020	912828L32	1,000,000.00	(1,011,132.81)	(75.97)	(1,011,208.78)			
09/08/16	09/09/16	FHLB GLOBAL NOTES DTD 09/09/2016 1.000% 09/26/2019	3130A9EP2	600,000.00	(599,478.00)	0.00	(599,478.00)			
Transaction Type Sub-Total				**2,200,000.00**	**(2,209,674.81)**	**(75.97)**	**(2,209,750.78)**			
INTEREST										
09/01/16	09/15/16	FHLMC POOL #A86315 DTD 05/01/2009 4.500% 05/01/2039	312933AQ7	42,177.50	0.00	158.17	158.17			
09/01/16	09/15/16	FREDDIE MAC SERIES 3842 DTD 04/01/2011 4.000% 04/01/2041	3137A9QP4	285,935.81	0.00	953.12	953.12			
09/01/16	09/25/16	FHLMC SERIES K718 A1 DTD 05/01/2015 2.375% 09/01/2021	3137BHXX0	473,481.32	0.00	937.10	937.10			
09/01/16	09/25/16	FNMA SERIES 2015-MA AV1 DTD 03/01/2015 2.013% 07/01/2022	3136AMM30	174,106.78	0.00	292.06	292.06			
09/01/16	09/25/16	FNMA POOL #AB3033 DTD 04/01/2011 4.500% 05/01/2041	31416YLP1	229,391.29	0.00	860.22	860.22			
09/01/16	09/25/16	FHLMC SERIES K717 A1 DTD 12/01/2014 2.342% 02/01/2021	3137BFDP3	132,557.77	0.00	258.71	258.71			
09/01/16	09/25/16	FNMA POOL #AB5396 DTD 05/01/2012 3.000% 06/01/2022	31417B7J0	113,230.01	0.00	283.08	283.08			
09/01/16	09/25/16	FNMA POOL #AB5434 DTD 05/01/2012 3.000% 06/01/2032	31417CBC8	231,564.15	0.00	578.91	578.91			
09/01/16	09/25/16	FNMA POOL #AS4197 DTD 12/01/2014 3.500% 01/01/2030	3138WDUX7	332,452.90	0.00	969.65	969.65			
09/01/16	09/25/16	FNMA POOL #AC1637 DTD 08/01/2009 5.000% 09/01/2039	31417KZB6	208,477.22	0.00	868.66	868.66			
09/01/16	09/25/16	FNMA POOL #MA1084 DTD 05/01/2012 3.500% 06/01/2032	31418AF29	266,755.00	0.00	778.04	778.04			
09/01/16	09/25/16	FNMA SERIES 2015-M1 ASQ2 DTD 01/15/2015 1.626% 02/01/2018	3136AMKW8	138,741.06	0.00	216.54	216.54			
09/02/16	09/02/16	MONEY MARKET FUND	MONEY0002	0.00	0.00	0.83	0.83			

Managed Account Security Transactions & Interest

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Transaction Type Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
INTEREST										
09/06/16	09/06/16	EXXON MOBIL CORP NOTES DTD 03/06/2015 1.305% 03/06/2018	30231GAL6	400,000.00	0.00	2,610.00	2,610.00			
09/09/16	09/09/16	ROYAL BANK OF CANADA NY CD DTD 03/15/2016 1.700% 03/09/2018	78009NZZ2	400,000.00	0.00	3,286.67	3,286.67			
09/11/16	09/11/16	US BANK NA CINCINNATI (CALLABLE) CD DTD 09/11/2014 1.375% 09/11/2017	90333VPF1	400,000.00	0.00	2,750.00	2,750.00			
09/15/16	09/15/16	HYUNDAI ABS 2016-A A3 DTD 03/30/2016 1.560% 09/15/2020	44930UAD8	80,000.00	0.00	104.00	104.00			
09/15/16	09/15/16	NISSAN ABS 2015-B A3 DTD 07/22/2015 1.340% 03/15/2020	65475WAD0	350,000.00	0.00	390.83	390.83			
09/15/16	09/15/16	BANK OF AMER CREDIT CARD TR 2015-A2 DTD 04/29/2015 1.360% 09/15/2020	05522RCU0	400,000.00	0.00	453.33	453.33			
09/26/16	09/26/16	FHLB GLOBAL NOTES DTD 09/09/2016 1.000% 09/26/2019	3130A9EP2	600,000.00	0.00	283.33	283.33			
Transaction Type Sub-Total				**5,258,870.81**	**0.00**	**17,033.25**	**17,033.25**			
PAYDOWNS										
09/01/16	09/15/16	FHLMC POOL #A86315 DTD 05/01/2009 4.500% 05/01/2039	312933AQ7	960.72	960.72	0.00	960.72	(48.11)	0.00	
09/01/16	09/15/16	FREDDIE MAC SERIES 3842 DTD 04/01/2011 4.000% 04/01/2041	3137A9QP4	5,852.93	5,852.93	0.00	5,852.93	(425.71)	0.00	
09/01/16	09/25/16	FNMA POOL #AB3033 DTD 04/01/2011 4.500% 05/01/2041	31416YLP1	2,320.03	2,320.03	0.00	2,320.03	(137.39)	0.00	
09/01/16	09/25/16	FNMA SERIES 2015-MA AV1 DTD 03/01/2015 2.013% 07/01/2022	3136AMM30	1,607.17	1,607.17	0.00	1,607.17	(16.04)	0.00	
09/01/16	09/25/16	FNMA POOL #AB5434 DTD 05/01/2012 3.000% 06/01/2032	31417CBC8	1,025.13	1,025.13	0.00	1,025.13	(47.57)	0.00	
09/01/16	09/25/16	FNMA POOL #AS4197 DTD 12/01/2014 3.500% 01/01/2030	3138WDUX7	3,679.34	3,679.34	0.00	3,679.34	(216.16)	0.00	
09/01/16	09/25/16	FNMA SERIES 2015-M1 ASQ2 DTD 01/15/2015 1.626% 02/01/2018	3136AMKW8	2,472.30	2,472.30	0.00	2,472.30	(24.70)	0.00	

Managed Account Security Transactions & Interest

For the Month Ending **September 30, 2016**

SAN BERNARDINO MUNI. WATER DEPARTMENT - 76991000

Transaction Type Trade	Settle	Security Description	CUSIP	Par	Principal Proceeds	Accrued Interest	Total	Realized G/L Cost	Realized G/L Amort Cost	Sale Method
PAYDOWNS										
09/01/16	09/25/16	FNMA POOL #AB5396 DTD 05/01/2012 3.000% 06/01/2022	31417B7J0	3,824.73	3,824.73	0.00	3,824.73	(209.17)	0.00	
09/01/16	09/25/16	FHLMC SERIES K717 A1 DTD 12/01/2014 2.342% 02/01/2021	3137BFDP3	1,498.68	1,498.68	0.00	1,498.68	(29.92)	0.00	
09/01/16	09/25/16	FHLMC SERIES K718 A1 DTD 05/01/2015 2.375% 09/01/2021	3137BHXX0	1,954.15	1,954.15	0.00	1,954.15	(39.02)	0.00	
09/01/16	09/25/16	FNMA POOL #AC1637 DTD 08/01/2009 5.000% 09/01/2039	31417KZB6	8,801.18	8,801.18	0.00	8,801.18	(990.13)	0.00	
09/01/16	09/25/16	FNMA POOL #MA1084 DTD 05/01/2012 3.500% 06/01/2032	31418AF29	6,757.31	6,757.31	0.00	6,757.31	(444.50)	0.00	
Transaction Type Sub-Total				**40,753.67**	**40,753.67**	**0.00**	**40,753.67**	**(2,628.42)**	**0.00**	
SELL										
08/31/16	09/02/16	US TREASURY NOTES DTD 12/02/2013 1.250% 11/30/2018	912828A34	325,000.00	327,907.23	1,043.37	328,950.60	5,179.69	4,059.74	SPEC LOT
08/31/16	09/02/16	US TREASURY NOTES DTD 10/31/2013 1.250% 10/31/2018	912828WD8	200,000.00	201,757.81	849.18	202,606.99	2,437.50	2,130.05	SPEC LOT
09/01/16	09/02/16	FHLB GLOBAL NOTE DTD 08/26/2016 0.875% 10/01/2018	3130A9AE1	450,000.00	449,698.50	65.62	449,764.12	4.50	2.20	SPEC LOT
09/01/16	09/02/16	FANNIE MAE GLOBAL NOTES DTD 04/15/2013 0.875% 05/21/2018	3135G0WJ8	125,000.00	125,021.25	306.86	125,328.11	1,915.00	688.63	SPEC LOT
09/01/16	09/02/16	FANNIE MAE GLOBAL NOTES DTD 10/01/2013 1.625% 11/27/2018	3135G0YT4	400,000.00	406,328.00	1,715.28	408,043.28	6,316.00	6,321.13	SPEC LOT
09/08/16	09/09/16	US TREASURY NOTES DTD 11/30/2011 1.375% 11/30/2018	912828RT9	225,000.00	227,830.03	853.74	228,683.82	263.67	624.82	SPEC LOT
09/08/16	09/09/16	US TREASURY NOTES DTD 10/31/2014 1.500% 10/31/2019	912828F62	375,000.00	381,708.93	2,017.66	383,726.64	5,185.54	5,616.09	SPEC LOT
Transaction Type Sub-Total				**2,100,000.00**	**2,120,251.85**	**6,851.71**	**2,127,103.56**	**21,301.90**	**19,442.66**	
Managed Account Sub-Total					**(48,669.29)**	**23,808.99**	**(24,860.30)**	**18,673.48**	**19,442.66**	
Total Security Transactions					**($48,669.29)**	**$23,808.99**	**($24,860.30)**	**$18,673.48**	**$19,442.66**	

Customer Service
PO Box 11813
Harrisburg, PA 17108-1813

ACCOUNT STATEMENT

SAN BERNARDINO MUNI WATER DEPARTMENT

For the Month Ending
September 30, 2016

Client Management Team

Ellen Clark
Senior Managing Consultant
50 California Street, Suite 2300
San Francisco, CA 94111
415-982-5544
clarke@pfm.com

Contents

Cover/Disclosures
Summary Statement
Individual Accounts

Accounts included in Statement

76991000	SAN BERNARDINO MUNI. WATER DEPARTMENT

2016 OCT 10: 35

SAN BERNARDINO MUNI WATER DEPARTMENT
TERRI WILLOUGHBY
300 NORTH D STREET, FIFTH FLOOR
SAN BERNARDINO, CA 92418

Online Access www.pfm.com **Customer Service** 1-717-232-2723

Important Disclosures

Important Disclosures

This statement is for general information purposes only and is not intended to provide specific advice or recommendations. PFM Asset Management LLC ("PFM") is an investment advisor registered with the Securities and Exchange Commission, and is required to maintain a written disclosure statement of our background and business experience. If you would like to receive a copy of our current disclosure statement, please contact Service Operations at the address below.

Proxy Voting PFM does not normally receive proxies to vote on behalf of its clients. However, it does on occasion receive consent requests. In the event a consent request is received the portfolio manager contacts the client and then proceeds according to their instructions. PFM's Proxy Voting Policy is available upon request by contacting Service Operations at the address below.

Questions About an Account PFM's monthly statement is intended to detail our investment advisory activity as well as the activity of any accounts held by clients in pools that are managed by PFM. The custodian bank maintains the control of assets and executes (i.e., settles) all investment transactions. The custodian statement is the official record of security and cash holdings and transactions. PFM recognizes that clients may use these reports to facilitate record keeping and that the custodian bank statement and the PFM statement should be reconciled and differences resolved. Many custodians use a settlement date basis which may result in the need to reconcile due to a timing difference.

Account Control PFM does not have the authority to withdraw funds from or deposit funds to the custodian. Our clients retain responsibility for their internal accounting policies; implementing and enforcing internal controls and generating ledger entries or otherwise recording transactions.

Market Value Generally, PFM's market prices are derived from closing bid prices as of the last business day of the month as supplied by Interactive Data, Bloomberg or Telerate. Where prices are not available from generally recognized sources the securities are priced using a yield-based matrix system to arrive at an estimated market value. Prices that fall between data points are interpolated. Non-negotiable FDIC-insured bank certificates of deposit are priced at par. Although PFM believes the prices to be reliable, the values of the securities do not always represent the prices at which the securities could have been bought or sold. Explanation of the valuation methods for money market and TERM funds is contained in the appropriate fund information statement.

Amortized Cost The original cost of the principal of the security is adjusted for the amount of the periodic reduction of any discount or premium from the purchase date until the date of the report. Discount or premium with respect to short term securities (those with less than one year to maturity at time of issuance) is amortized on a straightline basis. Such discount or premium with respect to longer term securities is amortized using the constant yield basis.

Tax Reporting Cost data and realized gains / losses are provided for informational purposes only. Please review for accuracy and consult your tax advisor to determine the tax consequences of your security transactions. PFM does not report such information to the IRS or other taxing authorities and is not responsible for the accuracy of such information that may be required to be reported to federal, state or other taxing authorities.

Financial Situation In order to better serve you, PFM should be promptly notified of any material change in your investment objective or financial situation.

Callable Securities Securities subject to redemption prior to maturity may be redeemed in whole or in part before maturity, which could affect the yield represented.

Portfolio The securities in this portfolio, including shares of mutual funds, are not guaranteed or otherwise protected by PFM, the FDIC (except for certain non-negotiable certificates of deposit) or any government agency. Investment in securities involves risks, including the possible loss of the amount invested.

Rating Information provided for ratings is based upon a good faith inquiry of selected sources, but its accuracy and completeness cannot be guaranteed. Shares of some money market and TERM funds are marketed through representatives of PFM's wholly owned subsidiary, PFM Fund Distributors, Inc. PFM Fund Distributors, Inc. is registered with the SEC as a broker/dealer and is a member of the Financial Industry Regulatory Authority ("FINRA") and the Municipal Securities Rulemaking Board ("MSRB"). You may reach the FINRA by calling the FINRA Regulator Public Disclosure Hotline at 1-888-289-9999 or at the FINRA Regulation Internet website address www.nasd.com. A brochure describing the FINRA Regulation Public Disclosure Program is also available from the FINRA upon request.

Key Terms and Definitions

Dividends on money market funds consist of interest earned, plus any discount ratably amortized to the date of maturity, plus all realized gains and losses on the sale of securities prior to maturity, less ratable amortization of any premium and all accrued expenses to the fund. Dividends are accrued daily and may be paid either monthly or quarterly. The monthly earnings on this statement represent the estimated dividend accrued for the month for any program that distributes earnings on a quarterly basis. There is no guarantee that the estimated amount will be paid on the actual distribution date.

Current Yield is the net change, exclusive of capital changes and income other than investment income, in the value of a hypothetical fund account with a balance of one share over the seven-day base period including the statement date, expressed as a percentage of the value of one share (normally $1.00 per share) at the beginning of the seven-day period. This resulting net change in account value is then annualized by multiplying it by 365 and dividing the result by 7. The yields quoted should not be considered a representation of the yield of the fund in the future, since the yield is not fixed.

Average maturity represents the average maturity of all securities and investments of a portfolio, determined by multiplying the par or principal value of each security or investment by its maturity (days or years), summing the products, and dividing the sum by the total principal value of the portfolio. The stated maturity date of mortgage backed or callable securities are used in this statement. However the actual maturity of these securities could vary depending on the level or prepayments on the underlying mortgages or whether a callable security has or is still able to be called.

Monthly distribution yield represents the net change in the value of one share (normally $1.00 per share) resulting from all dividends declared during the month by a fund expressed as a percentage of the value of one share at the beginning of the month. This resulting net change is then annualized by multiplying it by 365 and dividing it by the number of calendar days in the month.

YTM at Cost The yield to maturity at cost is the expected rate of return, based on the original cost, the annual interest receipts, maturity value and the time period from purchase date to maturity, stated as a percentage, on an annualized basis.

YTM at Market The yield to maturity at market is the rate of return, based on the current market value, the annual interest receipts, maturity value and the time period remaining until maturity, stated as a percentage, on an annualized basis.

Managed Account A portfolio of investments managed discretely by PFM according to the client's specific investment policy and requirements. The investments are directly owned by the client and held by the client's custodian.

Unsettled Trade A trade which has been executed however the final consummation of the security transaction and payment has not yet taken place.

Please review the detail pages of this statement carefully. If you think your statement is wrong, missing account information, or if you need more information about a transaction, please contact PFM within 60 days of receipt. If you have other concerns or questions regarding your account you should contact a member of your client management team or PFM Service Operations at the address below.

PFM Asset Management LLC
Attn: Service Operations
One Keystone Plaza, Suite 300
N. Front & Market Sts
Harrisburg, PA 17101