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Sterling Environmental Engineering, P.C.

August 13, 2014

Mr. Carl Hoffman, P.E.
Environmental Engineer II
Division of Environmental Remediation
NYSDEC
625 Broadway, 12th Floor
Albany, New York 12233-7013

Subject: 2014 Annual Post-Closure Monitoring Report
Town of Ramapo Landfill
STERLING File #20010 (Task 200)

Dear Mr. Hoffman,

This Annual Post-Closure Monitoring (PCM) Report for the Town of Ramapo Landfill (Landfill) provides a summary of the 2014 Annual PCM event, conducted on March 17 and 18, 2014. The Report provides an overview of work performed, Landfill conditions, air quality, groundwater monitoring, and leachate/groundwater monitoring results. The New York State Department of Environmental Conservation (NYSDEC) approved a variance request on October 27, 2003, reducing the monitoring frequency to once every year with the monitoring event being rotated to the next quarter for each year.

OVERVIEW

The following information was collected in support of the Annual PCM of the Landfill:

- The Annual PCM inspection of the Landfill was performed by Sterling Environmental Engineering, P.C. (STERLING) on March 19, 2014 (Figures 1 and 2). The 2014 Landfill inspection documents the physical integrity and stability of the Landfill cover system and assesses the condition and capability of existing surface water drainage and erosion control features at the Landfill. An inspection checklist and photograph log was prepared to memorialize these observations (Appendix A).

- The 2014 air quality monitoring event was conducted on March 17-19, 2014. Air monitoring locations are shown on Figure 3 and results are summarized on Table B-1 of Appendix B.

- Groundwater samples were collected from monitoring wells 1-OS, 2-OS, 3-OS/I, 4-OS, 5-OS, 7-OS, 8-OS, 8-I, 8-R, 9-OS, 9-I, 9-R, private water supply wells PW-1 and PW-2, and municipal water supply wells SVWC-93, SVWC-94, SVWC-95, and SVWC-96. Well locations are shown on Figure 3. The groundwater samples were analyzed for parameters listed in Table B-2. A summary of field parameters and analytical results for each well is summarized in Tables B-3, B-4, and B-5; analytical reports are provided in Appendix B. In addition, static water level readings were obtained at all of the sampled monitoring wells and at monitoring wells 1-R, 2-R, 3-R, 4-R, 5-R, 6-I, 6-R, 7-I and 7-R.

24 Wade Road ✦ Latham, New York 12110 ✦ Tel: 518-456-4900 ✦ Fax: 518-456-3532
E-mail: sterling@sterlingenvironmental.com ✦ Website: www.sterlingenvironmental.com

- Historical data for selected parameters are provided in Tables C-1 through C-14 (Appendix C).

- Reported discharge volumes pumped from the groundwater/leachate extraction wells, located on the downgradient side of the Landfill, to the Rockland County Sewer District (RCSD) #1 Publicly Owned Treatment Works (POTW) are to be provided to STERLING by the Town of Ramapo. Once received, the information will be embedded into Table D-1 of Appendix D.

- Analytical results from 2013 through the 2014 sampling event for leachate/groundwater pumped to the POTW are provided in Appendix E and summarized in Table E-1 of Appendix E.

SITE INSPECTION

The site inspection was conducted on March 18, 2014 to assess the condition of the following Landfill components: vegetative growth, surface water drainage structures, site fencing and gate/access road, Landfill cover, gas vents, gabion retaining walls, fences and gates, slope stability, and evidence of vector populations (i.e., burrow holes). A completed Inspection Checklist and select photographs from the site inspection are provided in Appendix A, photograph locations are shown on Figure 4. The Landfill is secure, stable, and the Landfill cover is intact with no evidence of stressed vegetation or damage due to erosion, settlement or vectors.

Given that the inspection was performed during the winter, evidence of existing vegetative growth was largely limited to remnants from the previous growing season. Past vegetative growth was present along specific sections of the Landfill's offsite drainage structures, listed as follows:

- Adjacent to the Baler Building in the drainage channel (see Photograph 1) and at the easternmost border of Landfill just northwest of the Baler Building (see Photograph 2).

- A small evergreen tree was observed in the drainage swale along the northern portion of the Landfill (see Photograph 4) and a sapling was identified in the drainage channel along the southeastern border of the Landfill (see Photograph 6).

- Occasional patches of grass or underbrush was discernible in the drainage channel near the southwestern, southern, and southeastern portions of the Landfill (see Photographs 5 through 7).

STERLING recommends that excessive vegetative growth from the following areas be periodically removed, as necessary, to allow storm water runoff to drain properly off and away from the Landfill.

A gas vent on the northern portion of the Landfill (see Photograph 3) and a second vent near the eastern side of the Landfill (see Photograph 8) were disconnected.

Overall, the site access road was observed to be in good condition with the only exception being evidence of erosion remnants (i.e., gravel washout) from the nearby access road being deposited in the drainage channel along the northeast perimeter of the Landfill (see Photographs 9 and 10). STERLING noted that the site access road was adequately repaired in this area but recommends that the Town consider removing the gravel from the drainage channel.

AIR MONITORING

Air quality monitoring consisted of measuring concentrations of explosive gas (measured in % of lower explosive limit (LEL)), Hydrogen Sulfide (H_2S), and Volatile Organic Compounds (VOCs) in the headspace of each monitoring well, leachate manhole A-5, lift stations A-10 and W-20, and ambient breathing space at the Baler Building and the Landfill perimeter at designated locations shown on Figure 3. Air quality monitoring results are summarized in Table B-1. Explosive gas and H_2S measurements were obtained with a QRAE multi-gas monitor while VOC measurements were obtained with a miniRAE 3000 photoionization detector (PID).

The March 2014 air quality monitoring survey for explosive gas, H_2S, and VOCs indicated the Landfill is in full compliance with the requirements set forth in 6 NYCRR 360-2.15(k)(4).

GROUNDWATER MONITORING

Groundwater Flow

Depth to water measurements were collected at or near the Landfill perimeter to determine groundwater elevations in the local overburden and bedrock aquifer systems. Groundwater flow direction in the overburden aquifer is to the northwest and/or west towards Torne Brook (see Figure 5). Groundwater flow direction in the bedrock aquifer is similar (see Figure 6). Groundwater gradients are similar in both aquifer systems and downward vertical gradients are noted throughout the Landfill perimeter, except at monitoring well cluster 8 where it was slightly upward.

Groundwater Analytical Results

All samples were analyzed by TestAmerica Laboratories, Inc. located in Amherst, New York following established USEPA methodologies and protocols. A copy of the analytical reports, prepared in accordance with NYSDEC Analytical Services Protocol (ASP) Category A reporting requirements, are provided as Appendix B.

Static water level and water quality field parameters (temperature, specific conductivity, pH, and oxidation-reduction potential (ORP)) readings were measured in the field and are presented on Table B-3 of Appendix B, "Field Parameter Measurements for 3/17/14 – 3/18/14".

The summary of 2014 PCM groundwater analytical results are provided on Tables B-4 and B-5 of Appendix B, "Post-Closure Monitoring Water Quality Results". A duplicate sample was collected from intermediate monitoring well 9-I and is labeled "Duplicate".

Analytical results for monitoring well samples are compared with the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1), Ambient Water Quality Standards and Guidance Values (June 1998). Analytical results for the private and municipal drinking water supply wells (PW-1, PW-2, SVWC-93, SVWC-94, SVWC-95, and SVWC-96) are compared with the 10 NYCRR Part 5 Maximum Contaminant Levels (MCLs) and the USEPA MCLs for Primary Drinking Water Regulations. No MCL exceedances were noted at any of the private or public water supply wells.

Exceedances were observed at seven (7) overburden monitoring wells, one (1) overburden/intermediate monitoring well, one (1) intermediate monitoring well, and the two (2) downgradientmost bedrock monitoring wells. A summary of reported parameter exceedances is provided below.

Reported concentrations for the following parameters exceed the applicable water quality standard:

Parameter Exceeding TOGS 1.1.1	Onsite Monitoring Well Location
Chromium (0.05mg/L)	1-OS (5.2 mg/L), 2-OS (1.1 mg/L), 3-OS/I (2.8 mg/L), 4-OS (0.54 mg/L), 5-OS (0.096), 7-OS (0.3 mg/L), 8-OS (0.085mg/L) and 9-OS (0.29 mg/L)
Iron (0.3mg/L*)	1-OS (66 mg/L), 2-OS (17.9 mg/L), 3-OS/I (16.6 mg/L), 4-OS (8.9 mg/L), 5-OS (53.5 mg/L), 7-OS (24.5 mg/L), 8-I (14.4 mg/L), 8-OS (0.54 mg/L), 9-OS (3.7 mg/L), and 9-R (6.8 mg/L)
Magnesium (35mg/L**)	8-R (43.3mg/L)
Manganese (0.3mg/L*)	1-OS (16.9 mg/L), 2-OS (1.9 mg/L), 3-OS/I (2.9 mg/L), 4-OS (0.74 mg/L), 5-OS (0.62 mg/L), 7-OS (1.5 mg/L), 8-I (3.3 mg/L), 8-R (1.9 mg/L), and 9-R (3.1 mg/L)
Nickel (0.1 mg/L)	1-OS (0.44 mg/L), 2-OS (0.24 mg/L), and 3-OS/I (0.4 mg/L)
Sodium (20 mg/L**)	1-OS (117 mg/L), 3-OS/I (35.3 mg/L), 4-OS (71.9 mg/L), 8-I (91.8 mg/L), 8-OS (24.5 mg/L), 8-R (37.8 mg/L), and 9-R (37.6 mg/L)

* The sum of iron and manganese should not exceed 0.5mg/L.
**Analytical results for the drinking water supply well samples for the 2014 PCM sampling event indicate there are no reported exceedances of the applicable water quality standards.

CONCENTRATION VERSUS TIME TRENDS

Historical data for selected parameters are summarized in Tables C-1 through C-14 to enable data trend analysis (Appendix C). General trends indicate chromium, iron, magnesium, manganese, nickel, and sodium are increasing for several onsite monitoring wells while antimony concentrations are decreasing with time. Analytical results for the drinking water supply well samples for the 2014 PCM sampling event indicate that there are no reported exceedances of the applicable water quality standards.

The concentration trends over time for parameters with exceedances reported for this event are presented in plots shown in Tables C-1 through C-14 of Appendix C and are summarized below:

Chromium (Table C-7)

The following overburden monitoring wells displayed an increasing trend in chromium concentrations with time: 1-OS, 2-OS, 3-OS/I, 4-OS, 7-OS, and 9-OS.

Iron (Table C-8)

The following wells show a slightly increasing trend over time: 1-OS, 3-OS/I, 7-OS, 9-OS, and 9-R.

The following wells show a decreasing trend over time: 2-OS, 4-OS, and 8-R.

The following wells show no discernible trend over time: 5-OS, 8-OS, and 8-I.

Magnesium (Table C-10)

The Magnesium concentration in well 8-R is increasing over time.

Manganese (Table C-11)

The following wells show an increasing trend over time: 1-OS, 7-OS, 8-I, and 9-R.

The following wells show a decreasing trend over time: 2-OS, 4-OS, and 8-R.

The following well shows no discernible trend over time: 3-OS/I and 5-OS.

Nickel (Table C-12)

Wells 1-OS, 2-OS, and 3-OS/I all show an increasing trend over time.

Sodium (Table C-13)

The following wells show an increasing trend over time: 1-OS, 3-OS/I, 4-OS, 8-OS, 8-I, and 9-R.

The following well shows a decreasing trend over time: 8-R.

The NYSDEC drinking water quality standard for sodium is 20,000µg/L. Sodium is included on the USEPA's Drinking Water Contaminant Candidate List (CCL). The CCL is a list of contaminants which, at the time of publication, are not subject to any proposed or promulgated National Primary Drinking Water Regulation (NPDWR), are known or anticipated to occur in public water systems, and may require regulations under the Safe Drinking Water Act (SDWA). The reported concentrations in PW-1, SVWC-93, SVWC-94, SVWC-95, and SVWC-96 are increasing over time.

EXTRACTION WELL DISCHARGE VOLUMES AND OPERATION PERIODS

Leachate/groundwater volumes pumped from the Landfill to the RCSD #1 POTW from 1995 to 2014 are to be provided by the Town of Ramapo. Once received, the information will be embedded into Table D-1 of Appendix D.

EXTRACTED LEACHATE/GROUNDWATER QUALITY DATA

Until June 2011, leachate and groundwater from the Landfill extraction well network were pumped to the RCSD #1 POTW located at 4 Route 340, Orangeburg, New York. Analytical testing of the Landfill leachate/groundwater occurs on a bi-annual basis from a manhole located upstream of the discharge to the leachate wet well. Analytical results from August 2009 to January 2014 are summarized in Table E-1 of Appendix E. Reported parameter concentrations are compared with maximum concentration limits set by RCSD #1. There are no reported exceedances for any of the listed sampling events.

Starting in June 2011, leachate/groundwater collected by the Landfill extraction wells is pumped to the RCSD #1 Western Ramapo Treatment Plant in Hillburn, New York. Sampling of the discharge from the Landfill continues to be collected from the same location described above on a bi-annual basis.

Leachate/groundwater collected from the Landfill and discharged to the RCSD #1 meets the industrial permit requirements for samples collected from August 2009 to January 23, 2014.

The next annual sampling event is scheduled for the second quarter of 2015. Please contact me should you have any questions or comments.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.

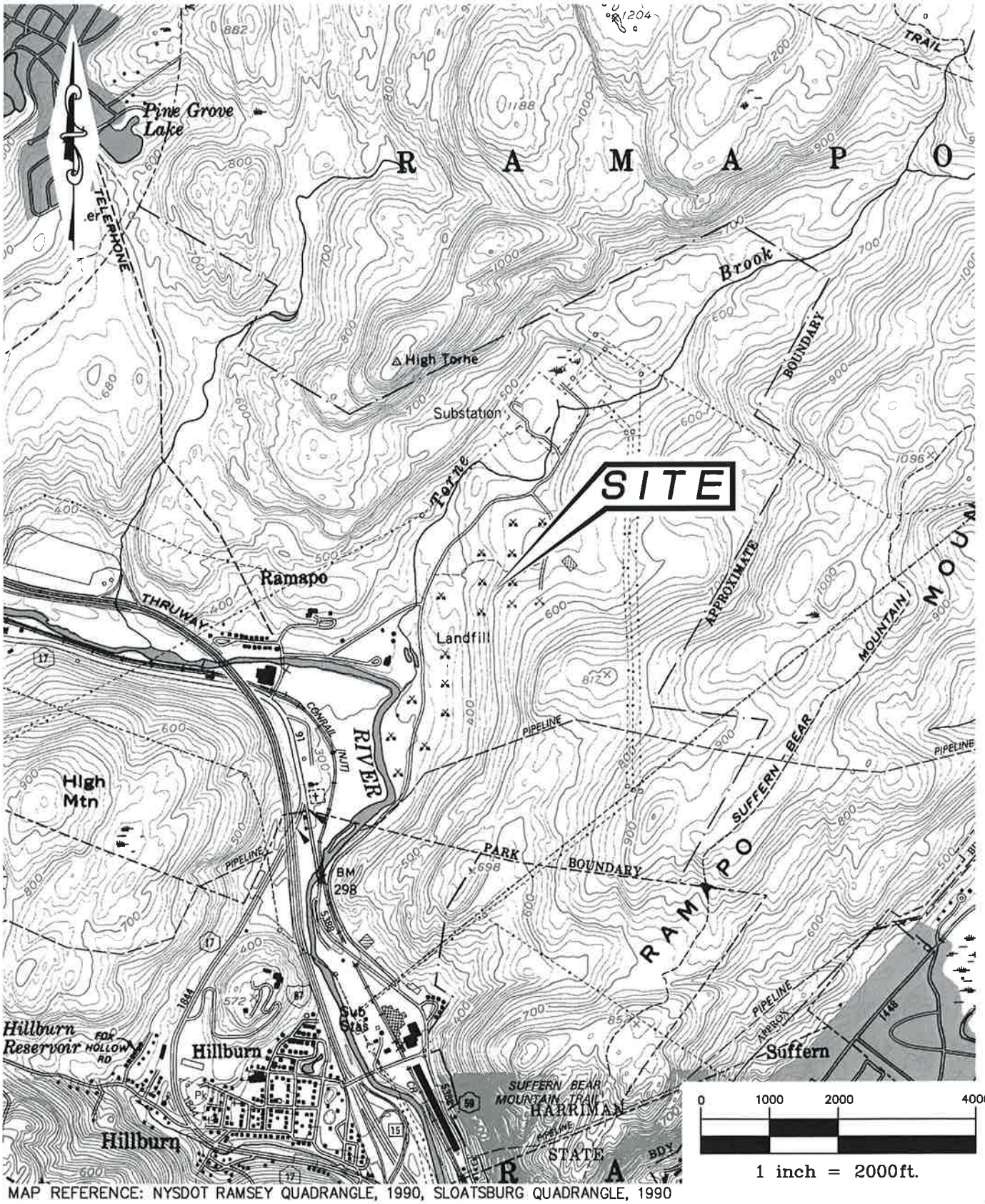
Mark A. Williams, P.G. (Pa)
Associate Geologist
mark.williams@sterlingenvironmental.com

MAW/bc
Email Only (NYSDEC)
Attachments (Figures 1-7 and Appendices A-E)

cc: George Jacob, USEPA
Anthony Perretta, NYSDOH (Email Only) *
John Mace, United Water New York *
Gerry Remsen, United Water New York*
John France, Torne Brook Farm **
Rosie Digianni, 20 Torne Brook Road **
Arlene Lapidos, Ramapo Land Co., Inc. *
Edward Dzurinko, Town of Ramapo
Ed Moran, Town of Ramapo

* letter, figures, and Tables B-1 – B-5 of Appendix B only
** letter and Table B-5 only

FIGURES 1 - 7



MAP REFERENCE: NYSDOT RAMSEY QUADRANGLE, 1990, SLOATSBURG QUADRANGLE, 1990

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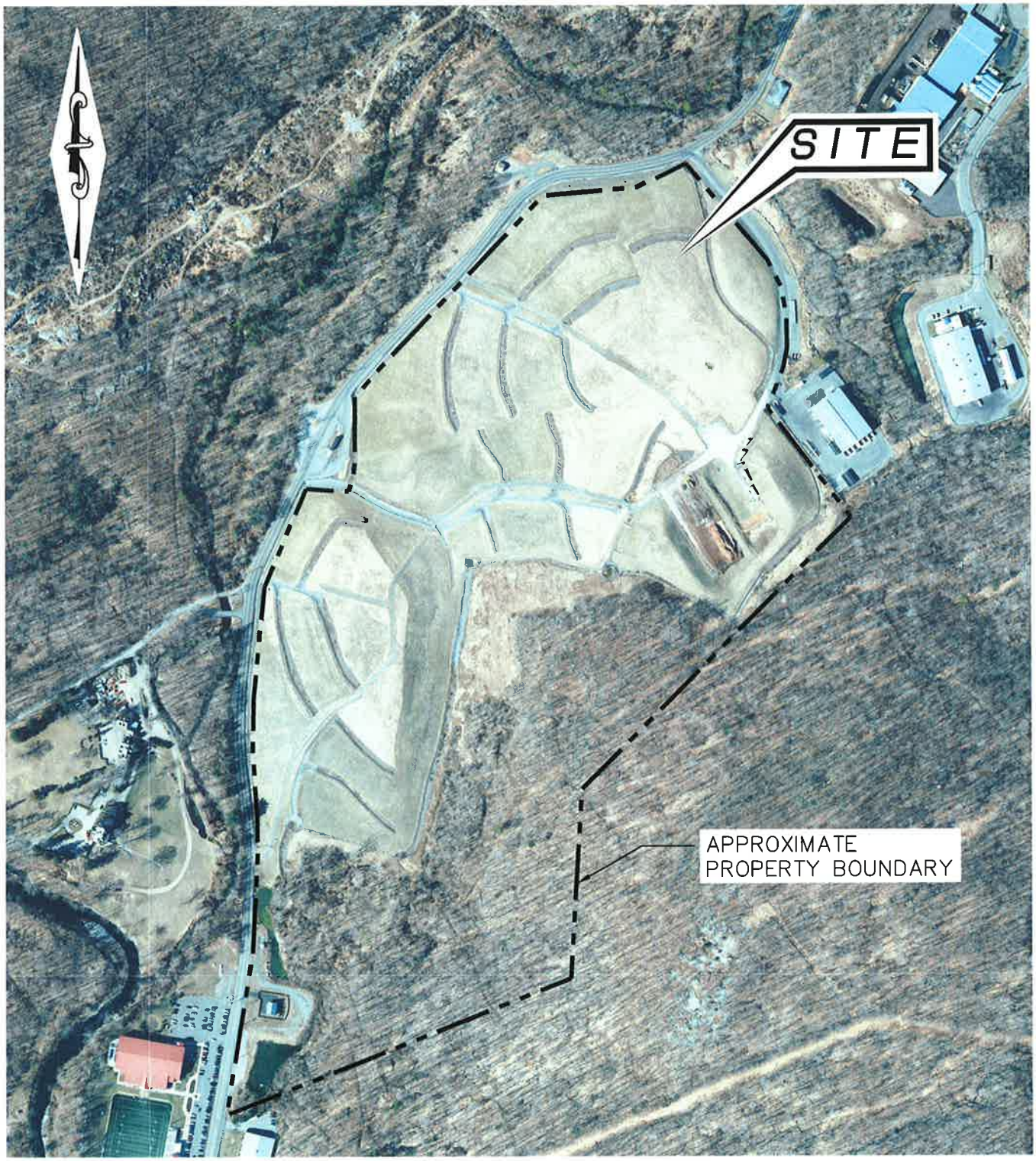
SITE LOCATION

TOWN OF RAMAPO LANDFILL

TOWN OF RAMAPO ROCKLAND CO., N.Y.

PROJ. No.:	20010	DATE:	8/1/14	SCALE:	1" = 2000'	DWG. NO.	20010035	FIGURE	1



LEGEND:

APPROXIMATE PROPERTY BOUNDARY

0 250 500 1000

1 inch = 500 ft.

MAP REFERENCE: NEW YORK STATEWIDE DIGITAL ORTHOIMAGERY PROGRAM, PHOTOGRAPHY CIRCA 2013.

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PROPERTY FEATURES
TOWN OF RAMAPO LANDFILL

TOWN OF RAMAPO ROCKLAND CO., N.Y.

PROJ. No.:	20010	DATE:	8/1/14	SCALE:	1" = 500'	DWG. NO.	20010036	FIGURE	2

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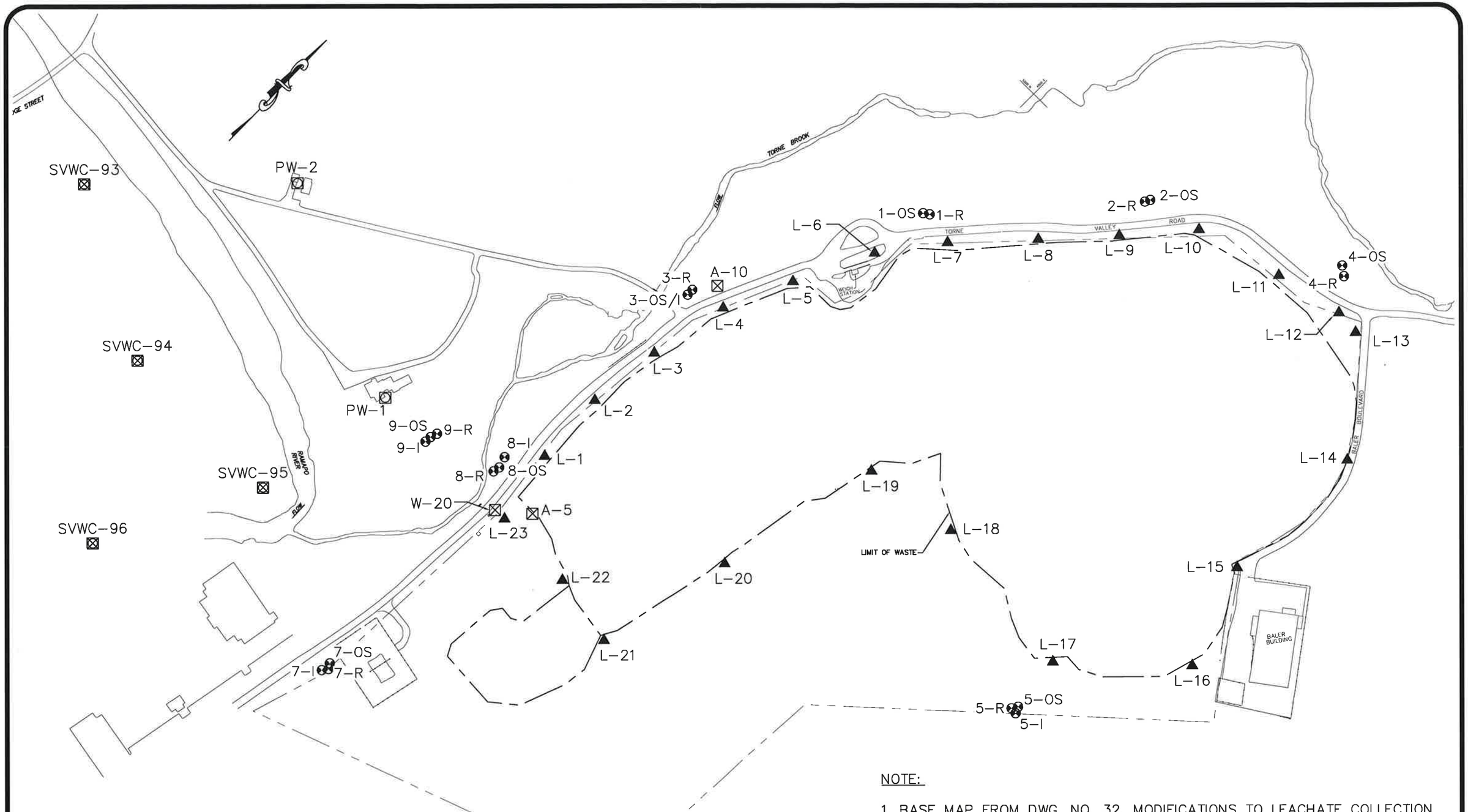

NOTE:

1. BASE MAP FROM DWG. NO. 32, MODIFICATIONS TO LEACHATE COLLECTION SYSTEM PLAN, BY URS CONSULTANTS, INC., BUFFALO, NY, JUNE 1994.

LEGEND:

5-OS	MONITORING WELL
L-1	LANDFILL PERIMETER AIR MONITORING POINT
PW-1	EXISTING PRIVATE WELL
SVWC-93	EXISTING UNITED WATER NEW YORK WELL
A-10	ON-SITE RECEPTOR STRUCTURE

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GROUNDWATER AND AIR QUALITY MONITORING LOCATIONS
TOWN OF RAMAPO LANDFILL
TOWN OF RAMAPO ROCKLAND CO., N.Y.

PROJ. No.:	DATE:	SCALE:	DWG. NO.	FIGURE
20010	8/1/14	N.T.S.	20010037	3

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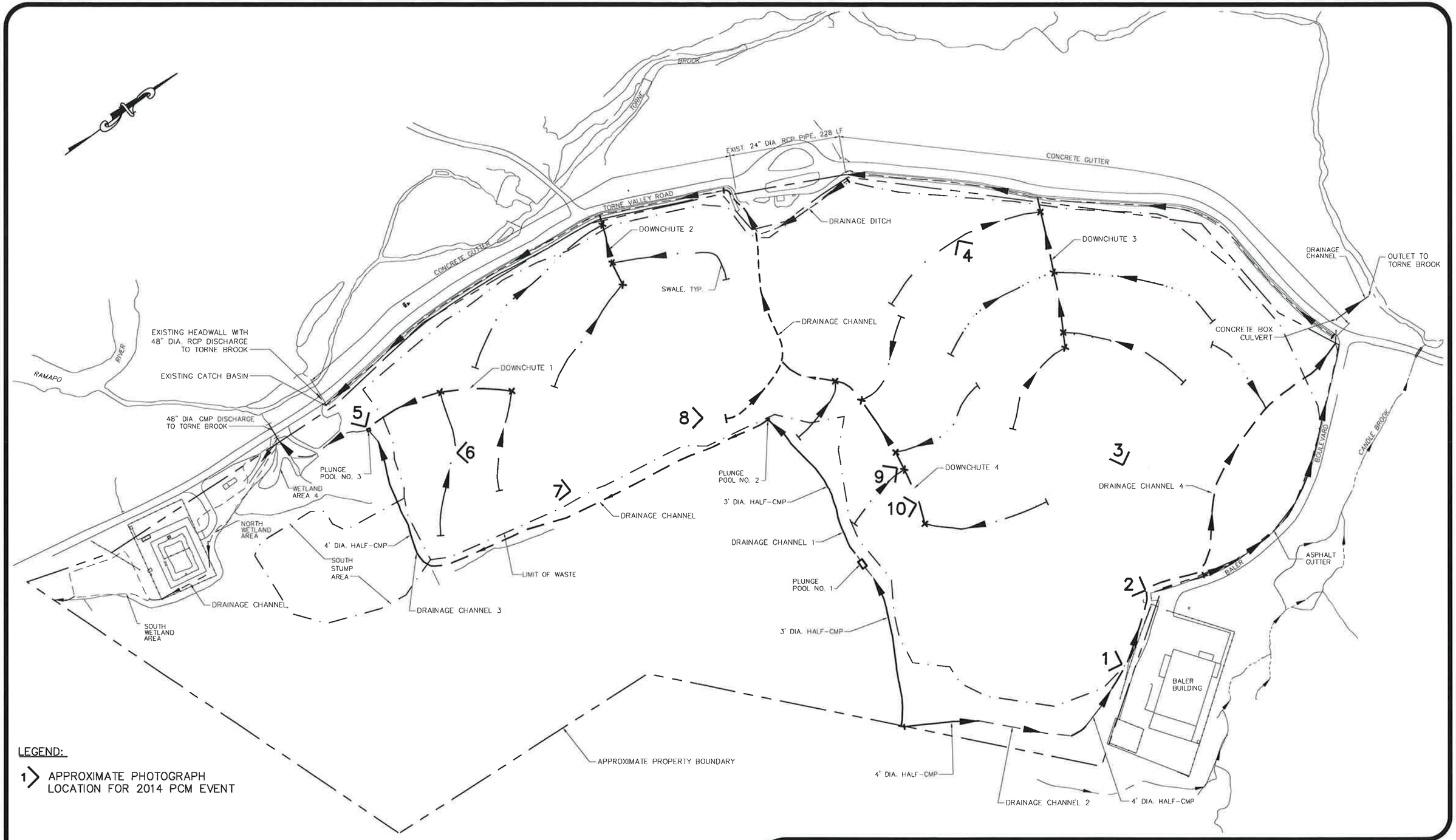

LEGEND:

1> APPROXIMATE PHOTOGRAPH LOCATION FOR 2014 PCM EVENT

NOTES:

1. BASE MAP FROM DWG. NO. 31, SURFACE DRAINAGE PLAN, BY URS CONSULTANTS, INC., BUFFALO, NY, JUNE 1994.
2. INFORMATION SHOWN FOR EXISTING PIPE SIZES ARE AS PROVIDED B A.R. SPARACO, JR., P.L.S., POMONA, NEW YORK

0 125 250 500

1 inch = 250 ft.

S:\Drawings\20010 - Town of Ramapo\20010040_SurfaceWaterAndControlFeatures.dwg 8/12/2014 9:40 AM

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SURFACE WATER DRAINAGE AND EROSION CONTROL FEATURES, WITH PHOTOGRAPH LOCATIONS
TOWN OF RAMAPO LANDFILL
TOWN OF RAMAPO ROCKLAND CO., N.Y.

PROJ. No.:	20010	DATE:	8/1/14	SCALE:	1" = 250'	DWG. NO.	20010040	FIGURE	4

BRIDGE STREET

RAMAPO RIVER

TORNE BROOK

TORNE BROOK ROAD

TORNE VALLEY ROAD

LANDFILL

SVWC-93

SVWC-94

SVWC-95

SVWC-96

PW-1

PW-2

1-OS G.W. EL. = 363.53'

1-R

2-OS G.W. EL. = 410.93'

2-R

3-OS G.W. EL. = 314.15'

3-R

4-OS G.W. EL. = 446.27'

4-R

5-OS G.W. EL. = 576.18'

5-R

5-I

6-R

6-I

7-OS G.W. EL. = 297.17'

7-R

7-I

8-OS G.W. EL. = 305.96'

8-R

8-I

9-OS

9-R

9-I

300'

320'

340'

360'

380'

400'

420'

440'

460'

480'

500'

520'

540'

560'

LEGEND:

GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED

GROUNDWATER FLOW DIRECTION

1-OS G.W. EL. = 363.53' — MONITORING WELL
GROUNDWATER ELEVATION FOR MARCH 2014 MONITORING EVENT

PW-1 — EXISTING PRIVATE WATER SUPPLY WELL

SVWC-93 — EXISTING SUPPLY WELL (UNITED WATER)

APPROXIMATE LANDFILL COVER SYSTEM BOUNDARY

APPROXIMATE LANDFILL PROPERTY BOUNDARY

0 150 300 600

1 inch = 300 ft.

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SHALLOW OVERBURDEN AQUIFER GROUNDWATER ELEVATION CONTOURS – MARCH 2014

TOWN OF RAMAPO LANDFILL

TOWN OF RAMAPO ROCKLAND CO., N.Y.

PROJ. No.:	20010	DATE:	8/1/14	SCALE:	1" = 300'	DWG. NO.	20010038	FIGURE	5

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BRIDGE STREET

RAMAPO RIVER

TORNE BROOK

TORNE BROOK ROAD

TORNE VALLEY RD

LANDFILL

PW-1

PW-2

SVWC-93

SVWC-94

SVWC-95

SVWC-96

1-OS 1-R G.W. EL. = 361.83'

2-R 2-OS G.W. EL. = 405.20'

3-R G.W. EL. = 333.40'

3-OS

4-OS 4-R G.W. EL. = 444.84'

6-R 6-I

9-I 9-R 9-OS

8-I 8-R G.W. EL. = 306.62' 8-OS

7-OS 7-R G.W. EL. = 293.64' 7-I

5-R G.W. EL. = 572.52' 5-OS 5-I

300' 320' 340' 360' 380' 400' 420' 440' 460' 480' 500' 520' 540' 560'

LEGEND:

———	GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED
→ →	GROUNDWATER FLOW DIRECTION
1-R G.W. EL. = 361.83'	MONITORING WELL GROUNDWATER ELEVATION FOR MARCH 2014 MONITORING EVENT
PW-1	EXISTING PRIVATE WATER SUPPLY WELL
SVWC-93	EXISTING SUPPLY WELL (UNITED WATER)
- - - - - - - - - -	APPROXIMATE LANDFILL COVER SYSTEM BOUNDARY
——— - - ———	APPROXIMATE LANDFILL PROPERTY BOUNDARY

0 150 300 600

1 inch = 300 ft.

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BEDROCK AQUIFER GROUNDWATER ELEVATION CONTOURS – MARCH 2014
TOWN OF RAMAPO LANDFILL

TOWN OF RAMAPO ROCKLAND CO., N.Y.

PROJ. No.:	20010	DATE:	8/1/14	SCALE:	1" = 300'	DWG. NO.	20010039	FIGURE	6

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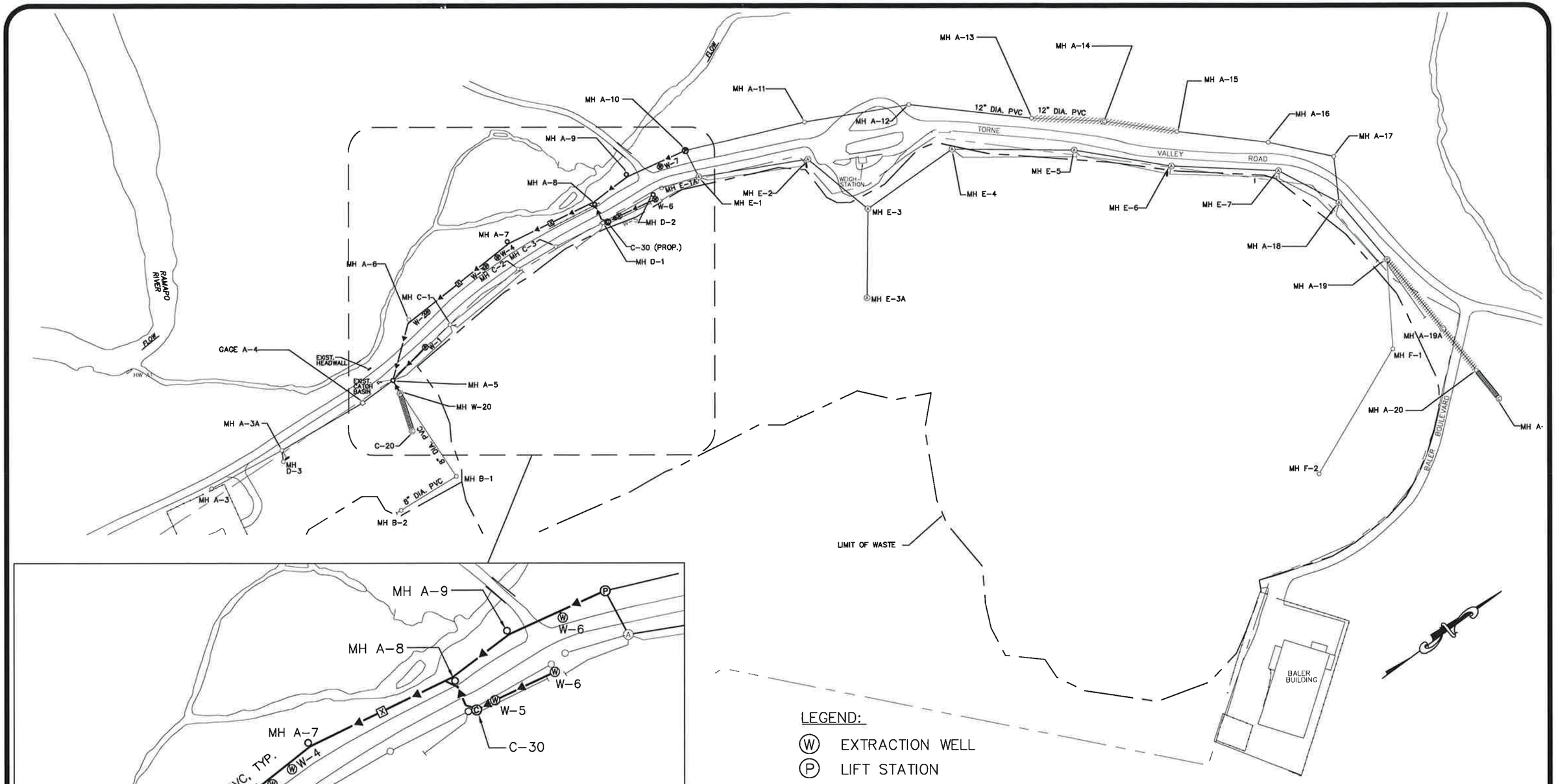

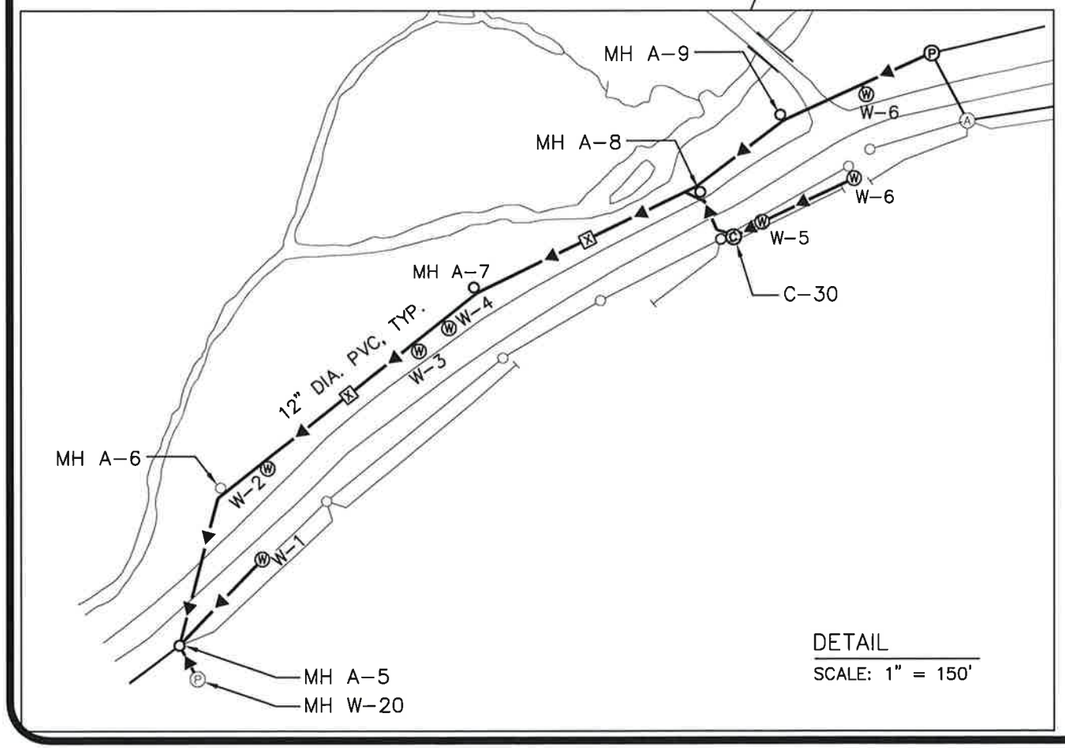

DETAIL
SCALE: 1" = 150'

LEGEND:

- (W) EXTRACTION WELL
- (P) LIFT STATION
- ○ MANHOLE COVER FOR LEACHATE COLLECTION SYSTEM

NOTE:

1. BASE MAP FROM DWG. NO. 32, MODIFICATIONS TO LEACHATE COLLECTION SYSTEM PLAN, BY URS CONSULTANTS, INC., BUFFALO, NY, JUNE 1994.

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EXTRACTION WELLS AND LIFT STATIONS LOCATIONS
TOWN OF RAMAPO LANDFILL
TOWN OF RAMAPO ROCKLAND CO., N.Y.

PROJ. No.:	20010	DATE:	8/1/14	SCALE:	1"=250'	DWG. NO.	20010041	FIGURE	7

APPENDIX A

INSPECTION CHECKLIST & PHOTOGRAPH LOG

TOWN OF RAMAPO LANDFILL
POST-CLOSURE ANNUAL SITE INSPECTION CHECKLIST

Date: 3/19/14
Inspected By: Charlotte Verhoef & Amanda Castignetti – Sterling Environmental Engineering, P.C.

Landfill Property Item	Condition: (Check applicable items)			Remarks
	Acceptable	Not Acceptable	Not Present	
1. Vegetative Cover	X			Good Condition – no problems noted
2. Surface Water Drainage Structures (Swales, Downchutes, Channels, Plunge Pools, Outfalls to Torne Brook).		X		Overgrown vegetation is present in many of the drainage channels along the perimeter of the Landfill (see Photographs 1, 2, 5, 6, and 7).
a. Sediment Build-Up in Drainage Structures		X		Gravel present in drainage channel from washout of Access Road on northeast portion of Landfill (see Photographs 9 &10).
b. Pooling or Ponding			X	2 plunge pools between air monitoring locations L-18 and L-19 are part of drainage system and are not on Landfill cover (see Figure 4).
c. Slope Integrity	X			Good Condition – no problems noted
d. Overall Adequacy	X			
e. Concrete Lining	X			
f. Gabion Lining	X			
g. Corrugated Metal Pipe (CMP) Lining	X			
3. Access Road		X		Some washout of gravel was observed into drainage channel on northeast portion of Landfill (see Photographs 9 & 10).
4. Landfill Cover System	X			Good condition – no problems noted
a. Erosion Damage			X	
b. Leachate Seeps			X	
c. Settlement			X	
d. Stone Aprons	X			

Landfill Property Item	Condition: (Check applicable items)			Remarks
	Acceptable	Not Acceptable	Not Present	
5. Gabion Retaining Walls	X			Good condition – no problems noted
a. Structural	X			
b. Drainage Media Behind Wall	X			
6. Fence and Gates	X			Good condition – no problems noted
7. Slope Stability	X			Good condition – no problems noted
a. Landfill	X			
b. Mountain Side	X			
8. Gas Vents		X		One (1) gas vent on north portion of Landfill (see Photograph 3). A second down vent was observed on the eastern bend of the Landfill (see Photograph 8).
a. Are Openings Unobstructed?		X		
b. Pipe Condition		X		
9. Burrow Holes			X	

Other	Yes	No
Obtain Groundwater Extraction Well Operation Period Records and Maintenance Records for Current Year (1)	X	

Miscellaneous Comments:

(1) No monitoring or site inspection was conducted in 2013 per PCM schedule. Records obtained are for the 2014 calendar year.

Photograph 1: Overgrown drainage across from Baler Building.

Photograph 2: Overgrown drainage on the most eastern border of Landfill and directly northwest of Baler Building.

Photograph 3: Down vent on north portion of Landfill.

Photograph 4: Tree present in drainage swale on the northern portion of the Landfill.

Photograph 5: Overgrown drainage channel on southwestern edge of Landfill.

Photograph 6: Drainage channel overgrown on south portion of Landfill.

Photograph 7: Overgrown vegetation and tree present in drainage channel on southeastern border of the Landfill.

Photograph 8: Down vent near the eastern bend of the Landfill.

Photograph 9: View of access road in northeast portion of Landfill in background of photograph. Gravel runoff into the drainage channel.

Photograph 10: Gravel is present in drainage channel from washout of Access Road on northeast portion of Landfill.

APPENDIX B

TABLES B-1 - B-5
&
LABORATORY ANALYTICAL REPORTS

TABLE B-1

TOWN OF RAMAPO LANDFILL
AIR QUALITY MONITORING RESULTS
March 17, 18 and 19, 2014

Monitoring Location (1)	LEL Reading (% LEL)	H_2S Reading (ppm)	PID Reading (ppm)
Monitoring Wells:			
1-OS	0	0	0
1-R	0	0	0
2-OS	0	0	0
2-R	0	0	0.2
3-OS/I	0	0	0
3-R	0	0	0
4-OS	0	0	0
4-R	0	0	0
5-OS	0	0	0
5-R	0	0	0
6-I	0	0	0
6-R	0	0	0
7-OS	0	0	0
7-I	0	0	0
7-R	0	0	0
8-OS	0	0	0
8-I	0	0	0
8-R	0	0	0
9-OS	0	0	0
9-I	0	0	0
9-R	0	0	0
Baler Building (waist high)	0	0	0
Manhole A-5	0	0	0
Lift Station A-10	0	0	0
Lift Station W-20	0	0	0
Landfill Perimeter (Breathing Zone)	0	0	0

NOTES:

LEL = Lower Explosive Limit (for Explosive Gas)
H_2S = Hydrogen Sulfide
PID = Photoionization Detector (measures VOCs)
ppm = parts per million

(1) See Figure 3 for Air Monitoring Locations

Table B-2

TOWN OF RAMAPO LANDFILL
Analytical Parameters and Method References

Parameter	Document/Method No.	Reference
Specific Conductance	120.1	1
Temperature	170.1	1
Static Water Level	---	---
Floaters or Sinkers	---	---
pH	150.1	1
Eh	D1498	2
Field Observations	---	---
TKN	351.3	1
COD	410.1	1
Alkalinity	310.1	1
Hardness as CaCO3	130.1	1
Site Related Volatiles:		
1, 1-Dichloroethane	601	1
Vinyl Chloride	601	1
Benzene	602	1
Chlorobenzene	602	1
TAL Metals	NYSDEC ASP	1

References:

1. New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) 9/89, 12/91 Revisions

2. American Society for Testing & Materials, ASTM, 1989

--- Parameters measured by Field Personnel or Reference is not available

Notes:

(1) Revised in accordance with the NYSDEC's October 27, 2003 post-closure monitoring variance approval

(2) Laboratory reporting limits (RL) must be equal to or less than the applicable water quality standard. Specifically, the RL for Antimony must be 3.0 ug/L or less and for Thallium must be 0.5 ug/L or less.

TABLE B-3
POST - CLOSURE WATER QUALITY MONITORING
FIELD PARAMETER MEASUREMENTS FOR 3/17/14-3/18/14
TOWN OF RAMAPO LANDFILL

Parameter		Static Water Level [1]	Specific Conductivity	Temperature	pH	ORP
Units		feet	mS/cm[c or 3]	degrees C	pH Units	mV
Title 6 Part 703.5 Groundwater Standard		--	--	--	6.5<pH< 8.5	--
Well Sample ID	**Date**					
1-OS	**3/18/2014**	15.68	0.925	9.56	6.64	148.5
1-R	**3/18/2014**	17.76	---	---	---	---
2-OS	**3/18/2014**	11.81	0.654	9.97	7.22	91.3
2-R	**3/18/2014**	16.81	---	---	---	---
3-OS/I	**3/18/2014**	11.62	0.593	8.70	6.94	91.0
3-R	**3/18/2014**	12.11	---	---	---	---
4-OS	**3/18/2014**	6.15	0.570	7.86	6.60	158.0
4-R	**3/18/2014**	8.00	---	---	---	---
5-OS	**3/18/2014**	8.69	0.078	6.80	7.44	145.8
5-R	**3/18/2014**	12.23	---	---	---	---
6-I	**3/18/2014**	17.43	---	---	---	---
6-R	**3/18/2014**	29.42	---	---	---	---
7-OS	**3/17/2014**	12.26	0.402	10.34	6.55	83.7
7-I	**3/17/2014**	13.85	---	---	---	---
7-R	**3/17/2014**	15.71	---	---	---	---
8-OS	**3/18/2014**	14.25	0.268	7.00	7.45	173.4
8-I	**3/18/2014**	15.58	1.239	11.60	6.78	-84.3
8-R	**3/18/2014**	13.90	1.149	12.22	6.94	30.7
9-OS	**3/17/2014**	8.31	0.096	7.59	**6.15**	160.7
9-I	**3/17/2014**	10.00	0.096	11.86	**6.40**	142.7
9-R	**3/17/2014**	11.90	0.560	11.46	6.58	-51.3
PW-1	**3/17/2014**	---	0.209	10.30	**6.40**	160.5
PW-2	**3/18/2014**	---	0.175	11.37	**8.52**	208.1
SVWC-93	**3/17/2014**	---	0.523	9.82	7.34	232.6
SVWC-94	**3/17/2014**	---	0.504	9.98	7.04	196.3
SVWC-95	**3/17/2014**	---	0.511	9.85	7.19	176.9
SVWC-96	**3/17/2014**	---	0.492	9.78	7.13	173.2

NOTES :

[1] Measured from the top of the PVC well casing to water surface.

Value in **BOLD** indicates an exceedance of applicable water quality standard or guidance value.

--- Denotes no standard or not measured.

Table B-4

Summary of Post-Closure Monitoring Water Quality Results - March 17 and 18, 2014
Town of Ramapo Landfill, Ramapo, New York

Analyte	CAS Number	Units	Analytical Method	TOGS 1.1.1 Standards	TOGS 1.1.1 Guidance Values	1-OS 3/18/2014 4:05 PM	2-OS 3/18/2014 1:15 PM	3-OS/I 3/18/2014 11:00 AM	4-OS 3/18/2014 3:40 PM	5-OS 3/18/2014 2:30 PM	7-OS 3/17/2014 4:55 PM	8-OS 3/18/2014 9:45 AM	8-I 3/18/2014 10:25 AM	8-R 3/18/2014 9:50 AM	9-OS 3/17/2014 3:40 PM	9-I 3/17/2014 3:25 PM	Duplicate** 3/17/2014 3:40 PM	9-R 3/17/2014 4:10 PM	TB 3/17/2014 12:00 AM	TB 3/18/2014 12:00 AM
1,1-Dichloroethane	75-34-3	µg/L	Volatile Organic Compounds by GC/MS	5	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alkalinity, Total	NA	mg/L	Alkalinity	---	---	151	302	304	40.1	24.9 B	119	56.7	447	573	10	18.9	19.7	136	---	---
Aluminum	7429-90-5	mg/L	Metals (ICP)	---	---	17.5	3.1	1.7	3	36.3	17.8	ND	0.18 J	ND	1.8	ND	ND	ND	---	---
Antimony	7440-36-0	µg/L	Metals (ICP/MS)	3	---	**4.3**	0.38 J	ND	ND	ND	0.26 J	ND	ND	ND	0.23 J	ND	ND	ND	---	---
Arsenic	7440-38-2	mg/L	Metals (ICP)	0.025	---	0.014	ND	ND	ND	0.0067 J	0.0093 J	ND	0.011	ND	ND	ND	ND	ND	---	---
Barium	7440-39-3	mg/L	Metals (ICP)	1	---	0.33	0.079	0.051	0.049	0.21	0.13	0.0067	0.073	0.013	0.018	0.0061	0.0057	0.022	---	---
Benzene	71-43-2	µg/L	Volatile Organic Compounds by GC/MS	1	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beryllium	7440-41-7	mg/L	Metals (ICP)	---	0.003	0.00048 J	ND	ND	ND	0.0019 J	0.00056 J	ND	ND	ND	ND	ND	ND	ND	---	---
Cadmium	7440-43-9	mg/L	Metals (ICP)	0.005	---	0.00066 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---
Calcium	7440-70-2	mg/L	Metals (ICP)	---	---	60	111	90.6	26.3	14.9	51.1	19.4	100	165	8.1	6.6	6.4	38.2	---	---
Chemical Oxygen Demand	NA	mg/L	COD	---	---	14.8 B	8.5 J B	14.1 B	12.6 B	7.8 J B	8.5 J B	5.0 J B	48.2 B	15.7	ND	ND	ND	11.0 B	---	---
Chlorobenzene	108-90-7	µg/L	Volatile Organic Compounds by GC/MS	5	---	ND	ND	ND	ND	ND	ND	ND	0.93 J	ND	ND	ND	ND	ND	ND	ND
Chromium	7440-47-3	mg/L	Metals (ICP)	0.05	---	**5.2**	**1.1**	**2.8**	**0.54**	**0.096**	**0.3**	**0.085**	0.0037 J	ND	**0.29**	0.011	0.0044	ND	---	---
Cobalt	7440-48-4	mg/L	Metals (ICP)	---	---	0.05	0.026	0.015	0.0075	0.022	0.14	ND	0.0053	0.01	0.00072 J	ND	ND	0.0023 J	---	---
Copper	7440-50-8	mg/L	Metals (ICP)	0.2	---	0.09	0.034	0.028	0.012	0.066	0.039	0.0026 J	0.0024 J	0.0040 J	0.0038 J	ND	ND	ND	---	---
Hardness as calcium carbonate	NA	mg/L	Hardness, Total	---	---	204	348	272	120	72	172	76	348	600	32	28	28	152	---	---
Iron	7439-89-6	mg/L	Metals (ICP)	0.3*	---	**66**	**17.9**	**16.6**	**8.9**	**53.5**	**24.5**	**0.54**	**14.4**	0.21	**3.7**	0.1	0.055	**6.8**	---	---
Lead	7439-92-1	mg/L	Metals (ICP)	0.025	---	0.025	0.0049 J	ND	ND	0.0078	0.0094	ND	ND	ND	0.0035 J	ND	ND	ND	---	---
Magnesium	7439-95-4	mg/L	Metals (ICP)	---	35	17.6	18.1	12.5	12.4	12.7	14	4.6	29.3	**43.3**	2.2	1.6	1.5	10.4	---	---
Manganese	7439-96-5	mg/L	Metals (ICP)	0.3*	---	**16.9 B**	**1.9 B**	**2.9 B**	**0.74 B**	**0.62 B**	**1.5**	0.10 B	**3.3 B**	**1.9 B**	0.051	0.004	0.003	**3.1**	---	---
Mercury	7439-97-6	mg/L	Mercury (CVAA)	0.0007	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---
Nickel	7440-02-0	mg/L	Metals (ICP)	0.1	---	**0.44**	**0.24**	**0.4**	0.042	0.047	0.036	0.0059 J	0.013	0.011	0.015	ND	ND	0.0020 J	---	---
Potassium	7440-09-7	mg/L	Metals (ICP)	---	---	6.5	2.5	3.3	1.6	7.5	6.5	2.5	23.4	3.2	1.1	0.64	0.63	8.5	---	---
Selenium	7782-49-2	mg/L	Metals (ICP)	0.01	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---
Silver	7440-22-4	mg/L	Metals (ICP)	0.05	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---
Sodium	7440-23-5	mg/L	Metals (ICP)	---	20	**117 B**	10.5 B	**35.3**	**71.9**	7	14.9	**24.5 B**	**91.8 B**	**37.8**	5.5	13	13.2	**37.6**	---	---
Thallium	7440-28-0	µg/L	Metals (ICP/MS)	---	0.5	0.098 J	0.043 J	0.024 J	0.040 J	0.39 J	0.25 J	ND	ND	ND	0.022 J	ND	ND	ND	---	---
Total Kjeldahl Nitrogen	NA	mg/L	Nitrogen, Total Kjeldahl	---	---	0.23	0.21	ND	ND	ND	0.34	0.67	14.6	0.42	0.2	ND	2.5	3.7	---	---
Vanadium	7440-62-2	mg/L	Metals (ICP)	---	---	0.062	0.012	0.013	0.0095	0.088	0.034	ND	ND	ND	0.0051	ND	ND	ND	---	---
Vinyl chloride	75-01-4	µg/L	Volatile Organic Compounds by GC/MS	2	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	7440-66-6	mg/L	Metals (ICP)	---	2	0.087 B	0.019 B	0.0096 J	0.015	0.079	0.047 B	0.0027 J B	0.0021 J B	0.0023 J	0.0067 J B	ND	ND	ND	---	---

NOTES:

TOGS 1.1.1 Standards = GA Water Class for Standard Values; Eff. June 1998

TOGS 1.1.1 Guidance Values = GA Water Class for Guidance Values; Eff. June 1998

Bolded value indicates reported concentration exceeds applicable water quality standard.

B = Compound was found in the blank and sample.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

* = The sum of iron and manganese should not exceed 0.5 mg/L.

** Duplicate groundwater sample collected from intermediate monitoring well 9-I.

NA = Not Available

ND = Not Detected

--- Denotes no standard or not measured.

Table B-5
Town of Ramapo Landfill Downgradient Drinking Supply Wells
Post-Closure Monitoring Water Quality Results
March 17 &18, 2014

Analyte	CAS Number	Units	Specific Method	Reports To	Basis	Reg 1	Reg 2	PW-1 3/17/2014 2:20 PM	PW-2 3/18/2014 8:40 AM	SVWC-93 3/17/2014 10:40 AM	SVWC-94 3/17/2014 11:05 AM	SVWC-95 3/17/2014 11:30 AM	SVWC-96 3/17/2014 11:50 AM	TB 3/17/2014 12:00 AM
1,1,1,2-Tetrachloroethane	630-20-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	71-55-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	200	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	79-34-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	79-00-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	75-34-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	75-35-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	7	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	563-58-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	87-61-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	96-18-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	70	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	95-63-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	96-12-8	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	0.2*	0.2*	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	106-93-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	0.05*	0.05*	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	95-50-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	600	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	107-06-2	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	78-87-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	108-67-8	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	541-73-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	142-28-9	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	106-46-7	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	75	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	594-20-7	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	78-93-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	95-49-8	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	591-78-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	106-43-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	99-87-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	108-10-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	1.1 J
Acetone	67-64-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	107-13-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Alkalinity, Total	N/A	mg/L	Alkalinity	MRL	Total	---	---	24	44	43.4	41.5	60	51.2	---
Allyl chloride	107-05-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Aluminum	7429-90-5	mg/L	Metals (ICP)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	---
Antimony	7440-36-0	ug/L	Metals (ICP/MS)	MDL	Total	6	6	ND	ND	ND	ND	ND	ND	---
Arsenic	7440-38-2	mg/L	Metals (ICP)	MDL	Total	0.01	0.01	ND	ND	ND	ND	ND	ND	---
Barium	7440-39-3	mg/L	Metals (ICP)	MRL	Total	2	2	0.0084	0.0038	0.012	0.017	0.015	0.012	---
Benzene	71-43-2	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	5	ND	ND	ND	ND	ND	ND	ND
Beryllium	7440-41-7	mg/L	Metals (ICP)	MDL	Total	0.004	0.004	ND	ND	ND	ND	ND	ND	---
Bromobenzene	108-86-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	74-97-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Bromoform	75-25-2	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Bromomethane	74-83-9	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND *	ND	ND *	ND *	ND *	ND *	ND *
Cadmium	7440-43-9	mg/L	Metals (ICP)	MDL	Total	0.005	0.005	ND	ND	ND	ND	ND	ND	---
Calcium	7440-70-2	mg/L	Metals (ICP)	MRL	Total	---	---	8.6	20.5	28.5	29.7	30.1	27.3	---
Carbon disulfide	75-15-0	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	56-23-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	5	ND *	ND	ND *	ND *	ND *	ND *	ND *
Chemical Oxygen Demand	N/A	mg/L	COD	MRL	Total	---	---	7.2 J B	ND *	10.3 B	6.6 J B	ND	9.7 J B	---
Chlorobenzene	108-90-7	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	100	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	124-48-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Chloroethane	75-00-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Chloroform	67-66-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Chloromethane	74-87-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Chromium	7440-47-3	mg/L	Metals (ICP)	MDL	Total	0.1	0.1	ND	ND	ND	ND	ND	ND	---
cis-1,2-Dichloroethene	156-59-2	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	70	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	10061-01-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Cobalt	7440-48-4	mg/L	Metals (ICP)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	---
Copper	7440-50-8	mg/L	Metals (ICP)	MRL	Total	---	1.3	0.16	0.063	0.0079 J	0.0080 J	0.011	0.0081 J	---
Dibromomethane	74-95-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Dichlorobromomethane	75-27-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	75-71-8	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Dichlorofluoromethane	75-43-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Ethyl ether	60-29-7	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	100-41-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	700	ND	ND	ND	ND	ND	ND	ND
Hardness as calcium carbonate	N/A	mg/L	Hardness, Total	MRL	Total	---	---	40	80	100	100	104	100	---
Hexachlorobutadiene	87-68-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Iodomethane	74-88-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Iron	7439-89-6	mg/L	Metals (ICP)	MRL	Total	0.3*	---	0.034 J	0.11	ND	ND	ND	ND	---
Isopropylbenzene	98-82-8	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Lead	7439-92-1	mg/L	Metals (ICP)	MDL	Total	---	0.015	ND	ND	ND	ND	ND	ND	---
Magnesium	7439-95-4	mg/L	Metals (ICP)	MRL	Total	---	---	2.3	2.5	7.5	8	8.2	7.3	---
Manganese	7439-96-5	mg/L	Metals (ICP)	MRL	Total	0.3*	---	0.0016 J	0.041	ND	ND	0.13	ND	---
Mercury	7439-97-6	mg/L	Mercury (CVAA)	MDL	Total	0.002	0.002	ND	ND	ND	ND	ND	ND	---
Methyl tert-butyl ether	1634-04-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	10	---	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	75-09-2	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	5	ND	ND	ND	ND	ND	ND	ND
m-Xylene & p-Xylene	179601-23-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Naphthalene	91-20-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	104-51-8	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Nickel	7440-02-0	mg/L	Metals (ICP)	MDL	Total	---	---	ND	ND	ND	ND	ND	0.0067 J	---
N-Propylbenzene	103-65-1	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
o-Xylene	95-47-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Potassium	9/7/7440	mg/L	Metals (ICP)	MRL	Total	---	---	1.3	1.2	1.8	1.8	1.9	1.7	---
sec-Butylbenzene	135-98-8	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Selenium	7782-49-2	mg/L	Metals (ICP)	MDL	Total	0.05	0.05	ND	ND	ND	ND	ND	ND	---
Silver	7440-22-4	mg/L	Metals (ICP)	MDL	Total	0.1	---	ND	ND	ND	ND	ND	ND	---
Sodium	7440-23-5	mg/L	Metals (ICP)	MRL	Total	---	---	25.6 B (3)	7.2	54.1 B (3)	50.1 B (3)	48.6 B (3)	56.1 B (3)	---
Styrene	100-42-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	100	ND	ND	ND	ND	ND	ND	ND
t-Butanol	75-65-0	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	98-06-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	127-18-4	ug/L	Volatile Organic Compounds (GC/MS)	MRL	Total	5	5	0.19 J	ND	ND	ND	ND	ND	---
Thallium	7440-28-0	ug/L	Metals (ICP/MS)	MDL	Total	2	2	ND	ND	ND	ND	ND	ND	---
Toluene	108-88-3	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	1000	ND	ND	ND	ND	ND	ND	ND
Total Kjeldahl Nitrogen	N/A	mg/L	Nitrogen, Total Kjeldahl	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	---
trans-1,2-Dichloroethene	156-60-5	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	100	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	10061-02-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	110-57-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	79-01-6	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	5	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	75-69-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	5	---	ND *	ND	ND *	ND *	ND *	ND *	ND *
Trihalomethanes, Total	N/A	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	80	80	ND	ND	ND	ND	ND	ND	ND
Vanadium	7440-62-2	mg/L	Metals (ICP)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	---
Vinyl acetate	108-05-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	---	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	75-01-4	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	2	2	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	1330-20-7	ug/L	Volatile Organic Compounds (GC/MS)	MDL	Total	---	10000	ND	ND	ND	ND	ND	ND	ND
Zinc	7440-66-6	mg/L	Metals (ICP)	MRL	Total	5	---	0.077	0.038	0.0046 J	0.0061 J	0.021	0.025	---

Column Name	Description
(1) Reg 1	NY DOH Part 5-SubPart5-1 Public Water Supply Stds.: MCLs Tables 1-7; Eff. 1 October 2007.
(2) Reg 2	USEPA - Primary Drinking Water Standards

(3) While there is no Maximum Contaminant Level (MCL) for Sodium, people on severly restricted Sodium diets should consult with the County Health Department for guidance if reported Sodium concentration is higher than 20 mg/L.

Bold = Value indicates reported concentration exceeds applicable water quality standard.
a = The sample specific detection limit does not support the regulatory requirement.
b = The sample matrix and/or units is incompatible with the selected regulatory limit - comparison cannot be made.
B = Compound was found in the blank and sample.
d = The limit is not a number - please review results against regulatory document manually.
H = Sample was prepared or analyzed beyond the specified holding time.
J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
* = If Iron and Manganese are present, the total concentration of both should not exceed 0.5 mg/L.
--- Denotes no standard or not measured.
ND = Not Detected

LABORATORY ANALYTICAL REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-56183-1
Client Project/Site: Ramapo Landfill
Sampling Event: Groundwater Wells

For:
Sterling Environmental Engineering PC
24 Wade Road
Latham, New York 12110

Attn: Charlotte Verhoef

Lisa Shaffer

Authorized for release by:
4/3/2014 7:54:15 AM

Lisa Shaffer, Project Manager II
(716)504-9816
lisa.shaffer@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-56183-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-56183-1

Comments
No additional comments.

Receipt
The samples were received on 3/18/2014 9:00 AM and 3/19/2014 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.0° C, 3.9° C and 4.3° C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 6010C: The Method Blank for batch 480-170961/1contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples 1-OS (480-56251-2), 2-OS (480-56251-1), 8-I (480-56251-3), 8-OS (480-56251-4) was not performed.

Method(s) 6010C: The Method Blank for batch 480-170964/1/1contained total manganese above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples 3-OS/I (480-56251-7), 4-OS (480-56251-8), 5-OS (480-56251-9), 8-R (480-56251-5) was not performed.

Method(s) 6010C: The Method Blank for batch 480-170727/1 contained total zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples 7-OS (480-56183-1), 9-OS (480-56183-3) was not performed.

Method(s) 6010C: The recovery of Post Spike, (480-56251-5 PDS), in batch 480-170964 exhibited a result outside the quality control limits for total manganese. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary

No other analytical or quality issues were noted.

General Chemistry
Method(s) 310.2: The method blank for batch 172385 contained alkove the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.5-OS (480-56251-9)

Method(s) 410.4: The method blank for batch 170702 was above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.7-OS (480-56183-1), 9-R (480-56183-4)

Method(s) 410.4: The method blank for batch 170903 contained was above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.1-OS (480-56251-2), 2-OS (480-56251-1), 8-I (480-56251-3), 8-OS (480-56251-4)

Method(s) 410.4: The method blank for batch 171626 was above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.3-OS/I (480-56251-7), 4-OS (480-56251-8), 5-OS (480-56251-9)

No other analytical or quality issues were noted.

Detection Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56183-1

Client Sample ID: 7-OS — Lab Sample ID: 480-56183-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	17.8		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.0093	J	0.010	0.0056	mg/L	1		6010C	Total/NA
Barium	0.13		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.00056	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Calcium	51.1		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.30		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.14		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.039		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	24.5		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0094		0.0050	0.0030	mg/L	1		6010C	Total/NA
Magnesium	14.0		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.5		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.036		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	6.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	14.9		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.034		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.047	B	0.010	0.0015	mg/L	1		6010C	Total/NA
Antimony	0.26	J	3.0	0.15	ug/L	1		6020	Total/NA
Thallium	0.25	J	0.50	0.0080	ug/L	1		6020	Total/NA
Alkalinity, Total	119		20.0	8.0	mg/L	2		310.2	Total/NA
Total Kjeldahl Nitrogen	0.34		0.20	0.15	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	8.5	J B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	172		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 9-I — Lab Sample ID: 480-56183-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0061		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	6.6		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.011		0.0040	0.0010	mg/L	1		6010C	Total/NA
Iron	0.10		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	1.6		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.0040		0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	0.64		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	13.0		1.0	0.32	mg/L	1		6010C	Total/NA
Alkalinity, Total	18.9		10.0	4.0	mg/L	1		310.2	Total/NA
Hardness as calcium carbonate	28.0		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 9-OS — Lab Sample ID: 480-56183-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.8		0.20	0.060	mg/L	1		6010C	Total/NA
Barium	0.018		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	8.1		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.29		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.00072	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.0038	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	3.7		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0035	J	0.0050	0.0030	mg/L	1		6010C	Total/NA
Magnesium	2.2		0.20	0.043	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 9-OS (Continued)

Lab Sample ID: 480-56183-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.051		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.015		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	1.1		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	5.5		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.0051		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.0067	J B	0.010	0.0015	mg/L	1		6010C	Total/NA
Antimony	0.23	J	3.0	0.15	ug/L	1		6020	Total/NA
Thallium	0.022	J	0.50	0.0080	ug/L	1		6020	Total/NA
Alkalinity, Total	10		10.0	4.0	mg/L	1		310.2	Total/NA
Total Kjeldahl Nitrogen	0.20		0.20	0.15	mg/L	1		351.2	Total/NA
Hardness as calcium carbonate	32.0		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 9-R

Lab Sample ID: 480-56183-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.022		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	38.2		0.50	0.10	mg/L	1		6010C	Total/NA
Cobalt	0.0023	J	0.0040	0.00063	mg/L	1		6010C	Total/NA
Iron	6.8		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	10.4		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	3.1		0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0020	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	8.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	37.6		1.0	0.32	mg/L	1		6010C	Total/NA
Alkalinity, Total	136		50.0	20.0	mg/L	5		310.2	Total/NA
Total Kjeldahl Nitrogen	3.7		0.20	0.15	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	11.0	B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	152		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 480-56183-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0057		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	6.4		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0044		0.0040	0.0010	mg/L	1		6010C	Total/NA
Iron	0.055		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	1.5		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.0030		0.0030	0.00040	mg/L	1		6010C	Total/NA
Potassium	0.63		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	13.2		1.0	0.32	mg/L	1		6010C	Total/NA
Alkalinity, Total	19.7		10.0	4.0	mg/L	1		310.2	Total/NA
Total Kjeldahl Nitrogen	2.5		0.20	0.15	mg/L	1		351.2	Total/NA
Hardness as calcium carbonate	28.0		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: TB

Lab Sample ID: 480-56183-6

No Detections.

Client Sample ID: 2-OS

Lab Sample ID: 480-56251-1

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2-OS (Continued)

Lab Sample ID: 480-56251-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	3.1		0.20	0.060	mg/L	1		6010C	Total/NA
Barium	0.079		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	111		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	1.1		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.026		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.034		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	17.9		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0049	J	0.0050	0.0030	mg/L	1		6010C	Total/NA
Magnesium	18.1		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.9	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.24		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	2.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	10.5	B	1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.012		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.019	B	0.010	0.0015	mg/L	1		6010C	Total/NA
Antimony	0.38	J	3.0	0.15	ug/L	1		6020	Total/NA
Thallium	0.043	J	0.50	0.0080	ug/L	1		6020	Total/NA
Alkalinity, Total	302		100	40.0	mg/L	10		310.2	Total/NA
Total Kjeldahl Nitrogen	0.21		0.20	0.15	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	8.5	J B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	348		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 1-OS

Lab Sample ID: 480-56251-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	17.5		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.014		0.010	0.0056	mg/L	1		6010C	Total/NA
Barium	0.33		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.00048	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Cadmium	0.00066	J	0.0010	0.00050	mg/L	1		6010C	Total/NA
Calcium	60.0		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	5.2		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.050		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.090		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	66.0		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.025		0.0050	0.0030	mg/L	1		6010C	Total/NA
Magnesium	17.6		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	16.9	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.44		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	6.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	117	B	1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.062		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.087	B	0.010	0.0015	mg/L	1		6010C	Total/NA
Antimony	4.3		3.0	0.15	ug/L	1		6020	Total/NA
Thallium	0.098	J	0.50	0.0080	ug/L	1		6020	Total/NA
Alkalinity, Total	151		20.0	8.0	mg/L	2		310.2	Total/NA
Total Kjeldahl Nitrogen	0.23		0.20	0.15	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	14.8	B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	204		4.0	1.1	mg/L	1		SM 2340C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56183-1

Client Sample ID: 8-I — Lab Sample ID: 480-56251-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.93	J	1.0	0.75	ug/L	1		8260C	Total/NA
Aluminum	0.18	J	0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.011		0.010	0.0056	mg/L	1		6010C	Total/NA
Barium	0.073		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	100		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.0037	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.0053		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.0024	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	14.4		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	29.3		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	3.3	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.013		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	23.4		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	91.8	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0021	J B	0.010	0.0015	mg/L	1		6010C	Total/NA
Alkalinity, Total	447		50.0	20.0	mg/L	5		310.2	Total/NA
Total Kjeldahl Nitrogen	14.6		2.0	1.5	mg/L	10		351.2	Total/NA
Chemical Oxygen Demand	48.2	B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	348		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 8-OS — Lab Sample ID: 480-56251-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0067		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	19.4		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.085		0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.0026	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	0.54		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	4.6		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.10	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.0059	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	2.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	24.5	B	1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0027	J B	0.010	0.0015	mg/L	1		6010C	Total/NA
Alkalinity, Total	56.7		10.0	4.0	mg/L	1		310.2	Total/NA
Total Kjeldahl Nitrogen	0.67		0.20	0.15	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	5.0	J B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	76.0		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 8-R — Lab Sample ID: 480-56251-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.013		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	165		0.50	0.10	mg/L	1		6010C	Total/NA
Cobalt	0.010		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.0040	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	0.21		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	43.3		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	1.9	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.011		0.010	0.0013	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 8-R (Continued)

Lab Sample ID: 480-56251-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	3.2		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	37.8		1.0	0.32	mg/L	1		6010C	Total/NA
Zinc	0.0023	J	0.010	0.0015	mg/L	1		6010C	Total/NA
Alkalinity, Total	573		100	40.0	mg/L	10		310.2	Total/NA
Total Kjeldahl Nitrogen	0.42		0.20	0.15	mg/L	1		351.2	Total/NA
Chemical Oxygen Demand	15.7		10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	600		10.0	2.6	mg/L	1		SM 2340C	Total/NA

Client Sample ID: TB

Lab Sample ID: 480-56251-6

No Detections.

Client Sample ID: 3-OS/I

Lab Sample ID: 480-56251-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.7		0.20	0.060	mg/L	1		6010C	Total/NA
Barium	0.051		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	90.6		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	2.8		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.015		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.028		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	16.6		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	12.5		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	2.9	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.40		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	3.3		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	35.3		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.013		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.0096	J	0.010	0.0015	mg/L	1		6010C	Total/NA
Thallium	0.024	J	0.50	0.0080	ug/L	1		6020	Total/NA
Alkalinity, Total	304		50.0	20.0	mg/L	5		310.2	Total/NA
Chemical Oxygen Demand	14.1	B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	272		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 4-OS

Lab Sample ID: 480-56251-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	3.0		0.20	0.060	mg/L	1		6010C	Total/NA
Barium	0.049		0.0020	0.00070	mg/L	1		6010C	Total/NA
Calcium	26.3		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.54		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.0075		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.012		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	8.9		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	12.4		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.74	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.042		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	1.6		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	71.9		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.0095		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.015		0.010	0.0015	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 4-OS (Continued)

Lab Sample ID: 480-56251-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.040	J	0.50	0.0080	ug/L	1		6020	Total/NA
Alkalinity, Total	40.1		10.0	4.0	mg/L	1		310.2	Total/NA
Chemical Oxygen Demand	12.6	B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	120		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: 5-OS

Lab Sample ID: 480-56251-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	36.3		0.20	0.060	mg/L	1		6010C	Total/NA
Arsenic	0.0067	J	0.010	0.0056	mg/L	1		6010C	Total/NA
Barium	0.21		0.0020	0.00070	mg/L	1		6010C	Total/NA
Beryllium	0.0019	J	0.0020	0.00030	mg/L	1		6010C	Total/NA
Calcium	14.9		0.50	0.10	mg/L	1		6010C	Total/NA
Chromium	0.096		0.0040	0.0010	mg/L	1		6010C	Total/NA
Cobalt	0.022		0.0040	0.00063	mg/L	1		6010C	Total/NA
Copper	0.066		0.010	0.0016	mg/L	1		6010C	Total/NA
Iron	53.5		0.050	0.019	mg/L	1		6010C	Total/NA
Lead	0.0078		0.0050	0.0030	mg/L	1		6010C	Total/NA
Magnesium	12.7		0.20	0.043	mg/L	1		6010C	Total/NA
Manganese	0.62	B	0.0030	0.00040	mg/L	1		6010C	Total/NA
Nickel	0.047		0.010	0.0013	mg/L	1		6010C	Total/NA
Potassium	7.5		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	7.0		1.0	0.32	mg/L	1		6010C	Total/NA
Vanadium	0.088		0.0050	0.0015	mg/L	1		6010C	Total/NA
Zinc	0.079		0.010	0.0015	mg/L	1		6010C	Total/NA
Thallium	0.39	J	0.50	0.0080	ug/L	1		6020	Total/NA
Alkalinity, Total	24.9	B	10.0	4.0	mg/L	1		310.2	Total/NA
Chemical Oxygen Demand	7.8	J B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	72.0		4.0	1.1	mg/L	1		SM 2340C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 7-OS
Date Collected: 03/17/14 16:55
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/18/14 23:53	1
Benzene	ND		1.0	0.41	ug/L			03/18/14 23:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/18/14 23:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/18/14 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*03/18/14 23:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*66 - 137*		*03/18/14 23:53*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*03/18/14 23:53*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*03/18/14 23:53*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17.8**		0.20	0.060	mg/L		03/19/14 09:45	03/24/14 21:00	1
Arsenic	**0.0093**	**J**	0.010	0.0056	mg/L		03/19/14 09:45	03/24/14 21:00	1
Barium	**0.13**		0.0020	0.00070	mg/L		03/19/14 09:45	03/24/14 21:00	1
Beryllium	**0.00056**	**J**	0.0020	0.00030	mg/L		03/19/14 09:45	03/24/14 21:00	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/24/14 21:00	1
Calcium	**51.1**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:00	1
Chromium	**0.30**		0.0040	0.0010	mg/L		03/19/14 09:45	03/24/14 21:00	1
Cobalt	**0.14**		0.0040	0.00063	mg/L		03/19/14 09:45	03/24/14 21:00	1
Copper	**0.039**		0.010	0.0016	mg/L		03/19/14 09:45	03/24/14 21:00	1
Iron	**24.5**		0.050	0.019	mg/L		03/19/14 09:45	03/24/14 21:00	1
Lead	**0.0094**		0.0050	0.0030	mg/L		03/19/14 09:45	03/24/14 21:00	1
Magnesium	**14.0**		0.20	0.043	mg/L		03/19/14 09:45	03/24/14 21:00	1
Manganese	**1.5**		0.0030	0.00040	mg/L		03/19/14 09:45	03/24/14 21:00	1
Nickel	**0.036**		0.010	0.0013	mg/L		03/19/14 09:45	03/24/14 21:00	1
Potassium	**6.5**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:00	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/24/14 21:00	1
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/24/14 21:00	1
Sodium	**14.9**		1.0	0.32	mg/L		03/19/14 09:45	03/24/14 21:00	1
Vanadium	**0.034**		0.0050	0.0015	mg/L		03/19/14 09:45	03/24/14 21:00	1
Zinc	**0.047**	**B**	0.010	0.0015	mg/L		03/19/14 09:45	03/24/14 21:00	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.26**	**J**	3.0	0.15	ug/L		03/25/14 08:50	03/28/14 05:43	1
Thallium	**0.25**	**J**	0.50	0.0080	ug/L		03/25/14 08:50	03/28/14 05:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**119**		20.0	8.0	mg/L			03/19/14 15:34	2
Total Kjeldahl Nitrogen	**0.34**		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 09:11	1
Chemical Oxygen Demand	**8.5**	**J B**	10.0	5.0	mg/L			03/18/14 21:50	1
Hardness as calcium carbonate	**172**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: 9-I
Date Collected: 03/17/14 15:25
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-2
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/19/14 00:14	1
Benzene	ND		1.0	0.41	ug/L			03/19/14 00:14	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/19/14 00:14	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/19/14 00:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*60 - 140*		*03/19/14 00:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/19/14 00:14*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*03/19/14 00:14*	*1*
Toluene-d8 (Surr)	*100*		*71 - 126*		*03/19/14 00:14*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/24/14 21:03	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/24/14 21:03	1
Barium	**0.0061**		0.0020	0.00070	mg/L		03/19/14 09:45	03/24/14 21:03	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/24/14 21:03	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/24/14 21:03	1
Calcium	**6.6**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:03	1
Chromium	**0.011**		0.0040	0.0010	mg/L		03/19/14 09:45	03/24/14 21:03	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/24/14 21:03	1
Copper	ND		0.010	0.0016	mg/L		03/19/14 09:45	03/24/14 21:03	1
Iron	**0.10**		0.050	0.019	mg/L		03/19/14 09:45	03/24/14 21:03	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/24/14 21:03	1
Magnesium	**1.6**		0.20	0.043	mg/L		03/19/14 09:45	03/24/14 21:03	1
Manganese	**0.0040**		0.0030	0.00040	mg/L		03/19/14 09:45	03/24/14 21:03	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/24/14 21:03	1
Potassium	**0.64**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:03	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/24/14 21:03	1
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/24/14 21:03	1
Sodium	**13.0**		1.0	0.32	mg/L		03/19/14 09:45	03/24/14 21:03	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/24/14 21:03	1
Zinc	ND		0.010	0.0015	mg/L		03/19/14 09:45	03/24/14 21:03	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/28/14 05:48	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/28/14 05:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**18.9**		10.0	4.0	mg/L			03/19/14 15:32	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:31	03/22/14 09:11	1
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/18/14 21:50	1
Hardness as calcium carbonate	**28.0**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: 9-OS
Date Collected: 03/17/14 15:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-3
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/19/14 00:35	1
Benzene	ND		1.0	0.41	ug/L			03/19/14 00:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/19/14 00:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/19/14 00:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*03/19/14 00:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*03/19/14 00:35*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*03/19/14 00:35*	*1*
Toluene-d8 (Surr)	*98*		*71 - 126*		*03/19/14 00:35*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.8**		0.20	0.060	mg/L		03/19/14 09:45	03/24/14 21:16	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/24/14 21:16	1
Barium	**0.018**		0.0020	0.00070	mg/L		03/19/14 09:45	03/24/14 21:16	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/24/14 21:16	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/24/14 21:16	1
Calcium	**8.1**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:16	1
Chromium	**0.29**		0.0040	0.0010	mg/L		03/19/14 09:45	03/24/14 21:16	1
Cobalt	**0.00072**	J	0.0040	0.00063	mg/L		03/19/14 09:45	03/24/14 21:16	1
Copper	**0.0038**	J	0.010	0.0016	mg/L		03/19/14 09:45	03/24/14 21:16	1
Iron	**3.7**		0.050	0.019	mg/L		03/19/14 09:45	03/24/14 21:16	1
Lead	**0.0035**	J	0.0050	0.0030	mg/L		03/19/14 09:45	03/24/14 21:16	1
Magnesium	**2.2**		0.20	0.043	mg/L		03/19/14 09:45	03/24/14 21:16	1
Manganese	**0.051**		0.0030	0.00040	mg/L		03/19/14 09:45	03/24/14 21:16	1
Nickel	**0.015**		0.010	0.0013	mg/L		03/19/14 09:45	03/24/14 21:16	1
Potassium	**1.1**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:16	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/24/14 21:16	1
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/24/14 21:16	1
Sodium	**5.5**		1.0	0.32	mg/L		03/19/14 09:45	03/24/14 21:16	1
Vanadium	**0.0051**		0.0050	0.0015	mg/L		03/19/14 09:45	03/24/14 21:16	1
Zinc	**0.0067**	J B	0.010	0.0015	mg/L		03/19/14 09:45	03/24/14 21:16	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.23**	J	3.0	0.15	ug/L		03/25/14 08:50	03/28/14 06:34	1
Thallium	**0.022**	J	0.50	0.0080	ug/L		03/25/14 08:50	03/28/14 06:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**10**		10.0	4.0	mg/L			03/20/14 07:37	1
Total Kjeldahl Nitrogen	**0.20**		0.20	0.15	mg/L		03/22/14 00:31	03/22/14 09:20	1
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/18/14 21:50	1
Hardness as calcium carbonate	**32.0**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: 9-R
Date Collected: 03/17/14 16:10
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-4
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/19/14 00:56	1
Benzene	ND		1.0	0.41	ug/L			03/19/14 00:56	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/19/14 00:56	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/19/14 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*03/19/14 00:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*03/19/14 00:56*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*03/19/14 00:56*	*1*
Toluene-d8 (Surr)	*98*		*71 - 126*		*03/19/14 00:56*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/24/14 21:27	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/24/14 21:27	1
Barium	**0.022**		0.0020	0.00070	mg/L		03/19/14 09:45	03/24/14 21:27	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/24/14 21:27	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/24/14 21:27	1
Calcium	**38.2**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:27	1
Chromium	ND		0.0040	0.0010	mg/L		03/19/14 09:45	03/24/14 21:27	1
Cobalt	**0.0023**	J	0.0040	0.00063	mg/L		03/19/14 09:45	03/24/14 21:27	1
Copper	ND		0.010	0.0016	mg/L		03/19/14 09:45	03/24/14 21:27	1
Iron	**6.8**		0.050	0.019	mg/L		03/19/14 09:45	03/24/14 21:27	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/24/14 21:27	1
Magnesium	**10.4**		0.20	0.043	mg/L		03/19/14 09:45	03/24/14 21:27	1
Manganese	**3.1**		0.0030	0.00040	mg/L		03/19/14 09:45	03/24/14 21:27	1
Nickel	**0.0020**	J	0.010	0.0013	mg/L		03/19/14 09:45	03/24/14 21:27	1
Potassium	**8.5**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:27	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/24/14 21:27	1
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/24/14 21:27	1
Sodium	**37.6**		1.0	0.32	mg/L		03/19/14 09:45	03/24/14 21:27	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/24/14 21:27	1
Zinc	ND		0.010	0.0015	mg/L		03/19/14 09:45	03/24/14 21:27	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/28/14 06:39	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/28/14 06:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**136**		50.0	20.0	mg/L			03/19/14 15:34	5
Total Kjeldahl Nitrogen	**3.7**		0.20	0.15	mg/L		03/26/14 11:52	03/27/14 13:03	1
Chemical Oxygen Demand	**11.0**	B	10.0	5.0	mg/L			03/18/14 21:50	1
Hardness as calcium carbonate	**152**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: Duplicate
Date Collected: 03/17/14 15:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/19/14 01:17	1
Benzene	ND		1.0	0.41	ug/L			03/19/14 01:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/19/14 01:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/19/14 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*60 - 140*		*03/19/14 01:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/19/14 01:17*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*03/19/14 01:17*	*1*
Toluene-d8 (Surr)	*98*		*71 - 126*		*03/19/14 01:17*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/24/14 21:30	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/24/14 21:30	1
Barium	**0.0057**		0.0020	0.00070	mg/L		03/19/14 09:45	03/24/14 21:30	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/24/14 21:30	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/24/14 21:30	1
Calcium	**6.4**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:30	1
Chromium	**0.0044**		0.0040	0.0010	mg/L		03/19/14 09:45	03/24/14 21:30	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/24/14 21:30	1
Copper	ND		0.010	0.0016	mg/L		03/19/14 09:45	03/24/14 21:30	1
Iron	**0.055**		0.050	0.019	mg/L		03/19/14 09:45	03/24/14 21:30	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/24/14 21:30	1
Magnesium	**1.5**		0.20	0.043	mg/L		03/19/14 09:45	03/24/14 21:30	1
Manganese	**0.0030**		0.0030	0.00040	mg/L		03/19/14 09:45	03/24/14 21:30	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/24/14 21:30	1
Potassium	**0.63**		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 21:30	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/24/14 21:30	1
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/24/14 21:30	1
Sodium	**13.2**		1.0	0.32	mg/L		03/19/14 09:45	03/24/14 21:30	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/24/14 21:30	1
Zinc	ND		0.010	0.0015	mg/L		03/19/14 09:45	03/24/14 21:30	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/28/14 06:45	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/28/14 06:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**19.7**		10.0	4.0	mg/L			03/19/14 15:54	1
Total Kjeldahl Nitrogen	**2.5**		0.20	0.15	mg/L		03/20/14 06:59	03/21/14 11:34	1
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/18/14 21:50	1
Hardness as calcium carbonate	**28.0**		4.0	1.1	mg/L			03/19/14 07:50	1

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56183-1

Client Sample ID: TB
Date Collected: 03/17/14 00:00
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/19/14 01:38	1
Benzene	ND		1.0	0.41	ug/L			03/19/14 01:38	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/19/14 01:38	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/19/14 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*60 - 140*		*03/19/14 01:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*66 - 137*		*03/19/14 01:38*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*03/19/14 01:38*	*1*
Toluene-d8 (Surr)	*100*		*71 - 126*		*03/19/14 01:38*	*1*

Client Sample ID: 2-OS
Date Collected: 03/18/14 13:15
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 06:18	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 06:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/14 06:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 06:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*03/20/14 06:18*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*03/20/14 06:18*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*03/20/14 06:18*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*		*03/20/14 06:18*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3.1**		0.20	0.060	mg/L		03/20/14 09:40	03/21/14 22:34	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/21/14 22:34	1
Barium	**0.079**		0.0020	0.00070	mg/L		03/20/14 09:40	03/21/14 22:34	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/21/14 22:34	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/21/14 22:34	1
Calcium	**111**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:34	1
Chromium	**1.1**		0.0040	0.0010	mg/L		03/20/14 09:40	03/21/14 22:34	1
Cobalt	**0.026**		0.0040	0.00063	mg/L		03/20/14 09:40	03/21/14 22:34	1
Copper	**0.034**		0.010	0.0016	mg/L		03/20/14 09:40	03/21/14 22:34	1
Iron	**17.9**		0.050	0.019	mg/L		03/20/14 09:40	03/21/14 22:34	1
Lead	**0.0049**	J	0.0050	0.0030	mg/L		03/20/14 09:40	03/21/14 22:34	1
Magnesium	**18.1**		0.20	0.043	mg/L		03/20/14 09:40	03/21/14 22:34	1
Manganese	**1.9**	B	0.0030	0.00040	mg/L		03/20/14 09:40	03/21/14 22:34	1
Nickel	**0.24**		0.010	0.0013	mg/L		03/20/14 09:40	03/21/14 22:34	1
Potassium	**2.5**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:34	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/21/14 22:34	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/21/14 22:34	1
Sodium	**10.5**	B	1.0	0.32	mg/L		03/20/14 09:40	03/21/14 22:34	1
Vanadium	**0.012**		0.0050	0.0015	mg/L		03/20/14 09:40	03/21/14 22:34	1
Zinc	**0.019**	B	0.010	0.0015	mg/L		03/20/14 09:40	03/21/14 22:34	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.38**	J	3.0	0.15	ug/L		03/25/14 08:50	03/31/14 10:27	1
Thallium	**0.043**	J	0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 10:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**302**		100	40.0	mg/L			03/24/14 08:18	10
Total Kjeldahl Nitrogen	**0.21**		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 09:02	1
Chemical Oxygen Demand	**8.5**	J B	10.0	5.0	mg/L			03/19/14 21:44	1
Hardness as calcium carbonate	**348**		4.0	1.1	mg/L			03/20/14 08:00	1

Client Sample ID: 1-OS
Date Collected: 03/18/14 16:05
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-2
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 06:42	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 06:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/14 06:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*03/20/14 06:42*	*1*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*03/20/14 06:42*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*03/20/14 06:42*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*03/20/14 06:42*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17.5**		0.20	0.060	mg/L		03/20/14 09:40	03/21/14 22:37	1
Arsenic	**0.014**		0.010	0.0056	mg/L		03/20/14 09:40	03/21/14 22:37	1
Barium	**0.33**		0.0020	0.00070	mg/L		03/20/14 09:40	03/21/14 22:37	1
Beryllium	**0.00048**	**J**	0.0020	0.00030	mg/L		03/20/14 09:40	03/21/14 22:37	1
Cadmium	**0.00066**	**J**	0.0010	0.00050	mg/L		03/20/14 09:40	03/21/14 22:37	1
Calcium	**60.0**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:37	1
Chromium	**5.2**		0.0040	0.0010	mg/L		03/20/14 09:40	03/21/14 22:37	1
Cobalt	**0.050**		0.0040	0.00063	mg/L		03/20/14 09:40	03/21/14 22:37	1
Copper	**0.090**		0.010	0.0016	mg/L		03/20/14 09:40	03/21/14 22:37	1
Iron	**66.0**		0.050	0.019	mg/L		03/20/14 09:40	03/21/14 22:37	1
Lead	**0.025**		0.0050	0.0030	mg/L		03/20/14 09:40	03/21/14 22:37	1
Magnesium	**17.6**		0.20	0.043	mg/L		03/20/14 09:40	03/21/14 22:37	1
Manganese	**16.9**	**B**	0.0030	0.00040	mg/L		03/20/14 09:40	03/21/14 22:37	1
Nickel	**0.44**		0.010	0.0013	mg/L		03/20/14 09:40	03/21/14 22:37	1
Potassium	**6.5**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:37	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/21/14 22:37	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/21/14 22:37	1
Sodium	**117**	**B**	1.0	0.32	mg/L		03/20/14 09:40	03/21/14 22:37	1
Vanadium	**0.062**		0.0050	0.0015	mg/L		03/20/14 09:40	03/21/14 22:37	1
Zinc	**0.087**	**B**	0.010	0.0015	mg/L		03/20/14 09:40	03/21/14 22:37	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**4.3**		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 10:33	1
Thallium	**0.098**	**J**	0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 10:33	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**151**		20.0	8.0	mg/L			03/25/14 01:39	2
Total Kjeldahl Nitrogen	**0.23**		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 09:02	1
Chemical Oxygen Demand	**14.8**	**B**	10.0	5.0	mg/L			03/19/14 21:44	1
Hardness as calcium carbonate	**204**		4.0	1.1	mg/L			03/20/14 08:00	1

Client Sample ID: 8-I
Date Collected: 03/18/14 10:25
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-3
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 07:06	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 07:06	1
Chlorobenzene	**0.93**	**J**	1.0	0.75	ug/L			03/20/14 07:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 07:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*03/20/14 07:06*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*03/20/14 07:06*	*1*
Toluene-d8 (Surr)	*93*		*71 - 126*		*03/20/14 07:06*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*03/20/14 07:06*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.18**	**J**	0.20	0.060	mg/L		03/20/14 09:40	03/21/14 22:40	1
Arsenic	**0.011**		0.010	0.0056	mg/L		03/20/14 09:40	03/21/14 22:40	1
Barium	**0.073**		0.0020	0.00070	mg/L		03/20/14 09:40	03/21/14 22:40	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/21/14 22:40	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/21/14 22:40	1
Calcium	**100**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:40	1
Chromium	**0.0037**	**J**	0.0040	0.0010	mg/L		03/20/14 09:40	03/21/14 22:40	1
Cobalt	**0.0053**		0.0040	0.00063	mg/L		03/20/14 09:40	03/21/14 22:40	1
Copper	**0.0024**	**J**	0.010	0.0016	mg/L		03/20/14 09:40	03/21/14 22:40	1
Iron	**14.4**		0.050	0.019	mg/L		03/20/14 09:40	03/21/14 22:40	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/21/14 22:40	1
Magnesium	**29.3**		0.20	0.043	mg/L		03/20/14 09:40	03/21/14 22:40	1
Manganese	**3.3**	**B**	0.0030	0.00040	mg/L		03/20/14 09:40	03/21/14 22:40	1
Nickel	**0.013**		0.010	0.0013	mg/L		03/20/14 09:40	03/21/14 22:40	1
Potassium	**23.4**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:40	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/21/14 22:40	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/21/14 22:40	1
Sodium	**91.8**	**B**	1.0	0.32	mg/L		03/20/14 09:40	03/21/14 22:40	1
Vanadium	ND		0.0050	0.0015	mg/L		03/20/14 09:40	03/21/14 22:40	1
Zinc	**0.0021**	**J B**	0.010	0.0015	mg/L		03/20/14 09:40	03/21/14 22:40	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 10:56	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 10:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**447**		50.0	20.0	mg/L			03/21/14 10:41	5
Total Kjeldahl Nitrogen	**14.6**		2.0	1.5	mg/L		03/22/14 00:24	03/22/14 09:37	10
Chemical Oxygen Demand	**48.2**	**B**	10.0	5.0	mg/L			03/19/14 21:44	1
Hardness as calcium carbonate	**348**		4.0	1.1	mg/L			03/20/14 08:00	1

Client Sample ID: 8-OS
Date Collected: 03/18/14 09:45
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-4
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 07:30	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 07:30	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/14 07:30	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*66 - 137*		*03/20/14 07:30*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*03/20/14 07:30*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*03/20/14 07:30*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*03/20/14 07:30*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/20/14 09:40	03/21/14 22:43	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/21/14 22:43	1
Barium	**0.0067**		0.0020	0.00070	mg/L		03/20/14 09:40	03/21/14 22:43	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/21/14 22:43	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/21/14 22:43	1
Calcium	**19.4**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:43	1
Chromium	**0.085**		0.0040	0.0010	mg/L		03/20/14 09:40	03/21/14 22:43	1
Cobalt	ND		0.0040	0.00063	mg/L		03/20/14 09:40	03/21/14 22:43	1
Copper	**0.0026**	J	0.010	0.0016	mg/L		03/20/14 09:40	03/21/14 22:43	1
Iron	**0.54**		0.050	0.019	mg/L		03/20/14 09:40	03/21/14 22:43	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/21/14 22:43	1
Magnesium	**4.6**		0.20	0.043	mg/L		03/20/14 09:40	03/21/14 22:43	1
Manganese	**0.10**	B	0.0030	0.00040	mg/L		03/20/14 09:40	03/21/14 22:43	1
Nickel	**0.0059**	J	0.010	0.0013	mg/L		03/20/14 09:40	03/21/14 22:43	1
Potassium	**2.5**		0.50	0.10	mg/L		03/20/14 09:40	03/21/14 22:43	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/21/14 22:43	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/21/14 22:43	1
Sodium	**24.5**	B	1.0	0.32	mg/L		03/20/14 09:40	03/21/14 22:43	1
Vanadium	ND		0.0050	0.0015	mg/L		03/20/14 09:40	03/21/14 22:43	1
Zinc	**0.0027**	J B	0.010	0.0015	mg/L		03/20/14 09:40	03/21/14 22:43	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 11:02	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 11:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**56.7**		10.0	4.0	mg/L			03/21/14 10:30	1
Total Kjeldahl Nitrogen	**0.67**		0.20	0.15	mg/L		03/25/14 08:32	03/25/14 17:10	1
Chemical Oxygen Demand	**5.0**	J B	10.0	5.0	mg/L			03/19/14 21:44	1
Hardness as calcium carbonate	**76.0**		4.0	1.1	mg/L			03/20/14 08:00	1

Client Sample ID: 8-R
Date Collected: 03/18/14 09:50
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-5
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 07:54	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 07:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/14 07:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 07:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*66 - 137*		*03/20/14 07:54*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*03/20/14 07:54*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*03/20/14 07:54*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*		*03/20/14 07:54*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/20/14 09:40	03/29/14 02:41	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/29/14 02:41	1
Barium	**0.013**		0.0020	0.00070	mg/L		03/20/14 09:40	03/29/14 02:41	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/29/14 02:41	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/29/14 02:41	1
Calcium	**165**		0.50	0.10	mg/L		03/20/14 09:40	03/29/14 02:41	1
Chromium	ND		0.0040	0.0010	mg/L		03/20/14 09:40	03/29/14 02:41	1
Cobalt	**0.010**		0.0040	0.00063	mg/L		03/20/14 09:40	03/29/14 02:41	1
Copper	**0.0040**	J	0.010	0.0016	mg/L		03/20/14 09:40	03/29/14 02:41	1
Iron	**0.21**		0.050	0.019	mg/L		03/20/14 09:40	03/29/14 02:41	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/29/14 02:41	1
Magnesium	**43.3**		0.20	0.043	mg/L		03/20/14 09:40	03/29/14 02:41	1
Manganese	**1.9**	B	0.0030	0.00040	mg/L		03/20/14 09:40	03/29/14 02:41	1
Nickel	**0.011**		0.010	0.0013	mg/L		03/20/14 09:40	03/29/14 02:41	1
Potassium	**3.2**		0.50	0.10	mg/L		03/20/14 09:40	03/29/14 02:41	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/29/14 02:41	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/29/14 02:41	1
Sodium	**37.8**		1.0	0.32	mg/L		03/20/14 09:40	03/29/14 02:41	1
Vanadium	ND		0.0050	0.0015	mg/L		03/20/14 09:40	03/29/14 02:41	1
Zinc	**0.0023**	J	0.010	0.0015	mg/L		03/20/14 09:40	03/29/14 02:41	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 11:08	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 11:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**573**		100	40.0	mg/L			03/21/14 10:41	10
Total Kjeldahl Nitrogen	**0.42**		0.20	0.15	mg/L		04/01/14 16:31	04/02/14 12:56	1
Chemical Oxygen Demand	**15.7**		10.0	5.0	mg/L			03/26/14 12:15	1
Hardness as calcium carbonate	**600**		10.0	2.6	mg/L			03/20/14 08:00	1

Client Sample ID: TB
Date Collected: 03/18/14 00:00
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 08:17	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 08:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/14 08:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 08:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*66 - 137*		*03/20/14 08:17*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*03/20/14 08:17*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*03/20/14 08:17*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*		*03/20/14 08:17*	*1*

Client Sample ID: 3-OS/I
Date Collected: 03/18/14 11:00
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-7
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/21/14 02:35	1
Benzene	ND		1.0	0.41	ug/L			03/21/14 02:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/21/14 02:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/21/14 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*03/21/14 02:35*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*03/21/14 02:35*	*1*
Toluene-d8 (Surr)	*100*		*71 - 126*		*03/21/14 02:35*	*1*
Dibromofluoromethane (Surr)	*87*		*60 - 140*		*03/21/14 02:35*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1.7**		0.20	0.060	mg/L		03/20/14 09:40	03/27/14 04:13	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/27/14 04:13	1
Barium	**0.051**		0.0020	0.00070	mg/L		03/20/14 09:40	03/27/14 04:13	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/27/14 04:13	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/27/14 04:13	1
Calcium	**90.6**		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 04:13	1
Chromium	**2.8**		0.0040	0.0010	mg/L		03/20/14 09:40	03/27/14 04:13	1
Cobalt	**0.015**		0.0040	0.00063	mg/L		03/20/14 09:40	03/27/14 04:13	1
Copper	**0.028**		0.010	0.0016	mg/L		03/20/14 09:40	03/27/14 04:13	1
Iron	**16.6**		0.050	0.019	mg/L		03/20/14 09:40	03/27/14 04:13	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/27/14 04:13	1
Magnesium	**12.5**		0.20	0.043	mg/L		03/20/14 09:40	03/27/14 04:13	1
Manganese	**2.9**	**B**	0.0030	0.00040	mg/L		03/20/14 09:40	03/27/14 04:13	1
Nickel	**0.40**		0.010	0.0013	mg/L		03/20/14 09:40	03/27/14 04:13	1
Potassium	**3.3**		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 04:13	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/27/14 04:13	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/27/14 04:13	1
Sodium	**35.3**		1.0	0.32	mg/L		03/20/14 09:40	03/27/14 04:13	1
Vanadium	**0.013**		0.0050	0.0015	mg/L		03/20/14 09:40	03/27/14 04:13	1
Zinc	**0.0096**	**J**	0.010	0.0015	mg/L		03/20/14 09:40	03/27/14 04:13	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 11:13	1
Thallium	**0.024**	**J**	0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 11:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**304**		50.0	20.0	mg/L			03/21/14 09:54	5
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 09:11	1
Chemical Oxygen Demand	**14.1**	**B**	10.0	5.0	mg/L			03/24/14 18:30	1
Hardness as calcium carbonate	**272**		4.0	1.1	mg/L			03/20/14 08:00	1

Client Sample ID: 4-OS
Date Collected: 03/18/14 15:40
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-8
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/21/14 02:59	1
Benzene	ND		1.0	0.41	ug/L			03/21/14 02:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/21/14 02:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/21/14 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*66 - 137*		*03/21/14 02:59*	*1*
4-Bromofluorobenzene (Surr)	*109*		*73 - 120*		*03/21/14 02:59*	*1*
Toluene-d8 (Surr)	*101*		*71 - 126*		*03/21/14 02:59*	*1*
Dibromofluoromethane (Surr)	*90*		*60 - 140*		*03/21/14 02:59*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**3.0**		0.20	0.060	mg/L		03/20/14 09:40	03/27/14 04:16	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/27/14 04:16	1
Barium	**0.049**		0.0020	0.00070	mg/L		03/20/14 09:40	03/27/14 04:16	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/27/14 04:16	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/27/14 04:16	1
Calcium	**26.3**		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 04:16	1
Chromium	**0.54**		0.0040	0.0010	mg/L		03/20/14 09:40	03/27/14 04:16	1
Cobalt	**0.0075**		0.0040	0.00063	mg/L		03/20/14 09:40	03/27/14 04:16	1
Copper	**0.012**		0.010	0.0016	mg/L		03/20/14 09:40	03/27/14 04:16	1
Iron	**8.9**		0.050	0.019	mg/L		03/20/14 09:40	03/27/14 04:16	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/27/14 04:16	1
Magnesium	**12.4**		0.20	0.043	mg/L		03/20/14 09:40	03/27/14 04:16	1
Manganese	**0.74**	**B**	0.0030	0.00040	mg/L		03/20/14 09:40	03/27/14 04:16	1
Nickel	**0.042**		0.010	0.0013	mg/L		03/20/14 09:40	03/27/14 04:16	1
Potassium	**1.6**		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 04:16	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/27/14 04:16	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/27/14 04:16	1
Sodium	**71.9**		1.0	0.32	mg/L		03/20/14 09:40	03/27/14 04:16	1
Vanadium	**0.0095**		0.0050	0.0015	mg/L		03/20/14 09:40	03/27/14 04:16	1
Zinc	**0.015**		0.010	0.0015	mg/L		03/20/14 09:40	03/27/14 04:16	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 11:18	1
Thallium	**0.040**	**J**	0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 11:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**40.1**		10.0	4.0	mg/L			03/24/14 07:58	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 09:11	1
Chemical Oxygen Demand	**12.6**	**B**	10.0	5.0	mg/L			03/24/14 18:30	1
Hardness as calcium carbonate	**120**		4.0	1.1	mg/L			03/20/14 08:00	1

Client Sample ID: 5-OS
Date Collected: 03/18/14 14:30
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-9
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/21/14 03:23	1
Benzene	ND		1.0	0.41	ug/L			03/21/14 03:23	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/21/14 03:23	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/21/14 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*66 - 137*		*03/21/14 03:23*	*1*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*		*03/21/14 03:23*	*1*
Toluene-d8 (Surr)	*99*		*71 - 126*		*03/21/14 03:23*	*1*
Dibromofluoromethane (Surr)	*89*		*60 - 140*		*03/21/14 03:23*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**36.3**		0.20	0.060	mg/L		03/20/14 09:40	03/27/14 04:19	1
Arsenic	**0.0067**	J	0.010	0.0056	mg/L		03/20/14 09:40	03/27/14 04:19	1
Barium	**0.21**		0.0020	0.00070	mg/L		03/20/14 09:40	03/27/14 04:19	1
Beryllium	**0.0019**	J	0.0020	0.00030	mg/L		03/20/14 09:40	03/27/14 04:19	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/27/14 04:19	1
Calcium	**14.9**		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 04:19	1
Chromium	**0.096**		0.0040	0.0010	mg/L		03/20/14 09:40	03/27/14 04:19	1
Cobalt	**0.022**		0.0040	0.00063	mg/L		03/20/14 09:40	03/27/14 04:19	1
Copper	**0.066**		0.010	0.0016	mg/L		03/20/14 09:40	03/27/14 04:19	1
Iron	**53.5**		0.050	0.019	mg/L		03/20/14 09:40	03/27/14 04:19	1
Lead	**0.0078**		0.0050	0.0030	mg/L		03/20/14 09:40	03/27/14 04:19	1
Magnesium	**12.7**		0.20	0.043	mg/L		03/20/14 09:40	03/27/14 04:19	1
Manganese	**0.62**	B	0.0030	0.00040	mg/L		03/20/14 09:40	03/27/14 04:19	1
Nickel	**0.047**		0.010	0.0013	mg/L		03/20/14 09:40	03/27/14 04:19	1
Potassium	**7.5**		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 04:19	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/27/14 04:19	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/27/14 04:19	1
Sodium	**7.0**		1.0	0.32	mg/L		03/20/14 09:40	03/27/14 04:19	1
Vanadium	**0.088**		0.0050	0.0015	mg/L		03/20/14 09:40	03/27/14 04:19	1
Zinc	**0.079**		0.010	0.0015	mg/L		03/20/14 09:40	03/27/14 04:19	1

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 11:24	1
Thallium	**0.39**	J	0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 11:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 09:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**24.9**	B	10.0	4.0	mg/L			03/27/14 11:47	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 09:11	1
Chemical Oxygen Demand	**7.8**	J B	10.0	5.0	mg/L			03/24/14 18:30	1
Hardness as calcium carbonate	**72.0**		4.0	1.1	mg/L			03/20/14 08:00	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DBFM (60-140)	12DCE (66-137)	BFB (73-120)	TOL (71-126)
480-56183-1	7-OS	101	100	95	95
480-56183-2	9-I	105	103	99	100
480-56183-2 MS	9-I	100	101	94	96
480-56183-2 MSD	9-I	96	98	91	96
480-56183-3	9-OS	103	102	98	98
480-56183-4	9-R	103	102	98	98
480-56251-1	2-OS	104	87	103	96
480-56251-2	1-OS	100	87	98	94
480-56251-3	8-I	102	87	100	93
480-56251-4	8-OS	103	89	102	94
480-56251-5	8-R	100	88	101	94
480-56251-7	3-OS/I	87	87	105	100
480-56251-8	4-OS	90	90	109	101
480-56251-9	5-OS	89	89	105	99

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DBFM (60-140)	12DCE (66-137)	BFB (73-120)	TOL (71-126)
480-56183-5	Duplicate	104	103	99	98
480-56183-6	TB	105	103	100	100
480-56251-6	TB	101	86	100	95
LCS 480-170672/5	Lab Control Sample	99	102	95	99
LCS 480-170899/5	Lab Control Sample	100	88	105	95
LCS 480-171118/4	Lab Control Sample	92	91	104	96
LCSD 480-170899/6	Lab Control Sample Dup	101	86	103	95
MB 480-170672/7	Method Blank	103	102	97	97
MB 480-170899/8	Method Blank	97	87	103	95
MB 480-171118/6	Method Blank	87	87	107	100

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-170672/7
Matrix: Water
Analysis Batch: 170672

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/18/14 21:06	1
Benzene	ND		1.0	0.41	ug/L			03/18/14 21:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/18/14 21:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/18/14 21:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*03/18/14 21:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*		*03/18/14 21:06*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*03/18/14 21:06*	*1*
Toluene-d8 (Surr)	*97*		*71 - 126*		*03/18/14 21:06*	*1*

Lab Sample ID: LCS 480-170672/5
Matrix: Water
Analysis Batch: 170672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	22.6		ug/L		90	71 - 129
Benzene	25.0	23.6		ug/L		95	71 - 124
Chlorobenzene	25.0	23.8		ug/L		95	72 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*60 - 140*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*
Toluene-d8 (Surr)	*99*		*71 - 126*

Lab Sample ID: 480-56183-2 MS
Matrix: Ground Water
Analysis Batch: 170672

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	ND		25.0	25.2		ug/L		101	71 - 129
Benzene	ND		25.0	25.7		ug/L		103	71 - 124
Chlorobenzene	ND		25.0	24.8		ug/L		99	72 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
1,2-Dichloroethane-d4 (Surr)	*101*		*66 - 137*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 170672

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		25.0	24.4		ug/L		97	71 - 129	3	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 170672

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	25.4		ug/L		102	71 - 124	1	13
Chlorobenzene	ND		25.0	24.9		ug/L		99	72 - 120	0	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*60 - 140*
1,2-Dichloroethane-d4 (Surr)	*98*		*66 - 137*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*

Lab Sample ID: MB 480-170899/8
Matrix: Water
Analysis Batch: 170899

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 00:22	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 00:22	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/14 00:22	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 00:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*60 - 140*		*03/20/14 00:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*03/20/14 00:22*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*03/20/14 00:22*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*03/20/14 00:22*	*1*

Lab Sample ID: LCS 480-170899/5
Matrix: Water
Analysis Batch: 170899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	23.0		ug/L		92	71 - 129
Benzene	25.0	23.8		ug/L		95	71 - 124
Chlorobenzene	25.0	24.5		ug/L		98	72 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*60 - 140*
1,2-Dichloroethane-d4 (Surr)	*88*		*66 - 137*
4-Bromofluorobenzene (Surr)	*105*		*73 - 120*
Toluene-d8 (Surr)	*95*		*71 - 126*

Lab Sample ID: LCSD 480-170899/6
Matrix: Water
Analysis Batch: 170899

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	25.0	23.5		ug/L		94	71 - 129	2	20
Benzene	25.0	24.0		ug/L		96	71 - 124	1	13

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 480-170899/6
Matrix: Water
Analysis Batch: 170899

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	25.0	25.1		ug/L		100	72 - 120	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*60 - 140*
1,2-Dichloroethane-d4 (Surr)	*86*		*66 - 137*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*
Toluene-d8 (Surr)	*95*		*71 - 126*

Lab Sample ID: MB 480-171118/6
Matrix: Water
Analysis Batch: 171118

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.38	ug/L			03/20/14 23:50	1
Benzene	ND		1.0	0.41	ug/L			03/20/14 23:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			03/20/14 23:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			03/20/14 23:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*87*		*60 - 140*		*03/20/14 23:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*87*		*66 - 137*		*03/20/14 23:50*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*03/20/14 23:50*	*1*
Toluene-d8 (Surr)	*100*		*71 - 126*		*03/20/14 23:50*	*1*

Lab Sample ID: LCS 480-171118/4
Matrix: Water
Analysis Batch: 171118

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	20.4		ug/L		82	71 - 129
Benzene	25.0	21.5		ug/L		86	71 - 124
Chlorobenzene	25.0	23.5		ug/L		94	72 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*92*		*60 - 140*
1,2-Dichloroethane-d4 (Surr)	*91*		*66 - 137*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Toluene-d8 (Surr)	*96*		*71 - 126*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-170727/1-A
Matrix: Water
Analysis Batch: 171729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/24/14 20:54	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-170727/1-A
Matrix: Water
Analysis Batch: 171729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/24/14 20:54	1
Barium	ND		0.0020	0.00070	mg/L		03/19/14 09:45	03/24/14 20:54	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/24/14 20:54	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/24/14 20:54	1
Calcium	ND		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 20:54	1
Chromium	ND		0.0040	0.0010	mg/L		03/19/14 09:45	03/24/14 20:54	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/24/14 20:54	1
Copper	ND		0.010	0.0016	mg/L		03/19/14 09:45	03/24/14 20:54	1
Iron	ND		0.050	0.019	mg/L		03/19/14 09:45	03/24/14 20:54	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/24/14 20:54	1
Magnesium	ND		0.20	0.043	mg/L		03/19/14 09:45	03/24/14 20:54	1
Manganese	ND		0.0030	0.00040	mg/L		03/19/14 09:45	03/24/14 20:54	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/24/14 20:54	1
Potassium	ND		0.50	0.10	mg/L		03/19/14 09:45	03/24/14 20:54	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/24/14 20:54	1
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/24/14 20:54	1
Sodium	ND		1.0	0.32	mg/L		03/19/14 09:45	03/24/14 20:54	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/24/14 20:54	1
Zinc	0.00200	J	0.010	0.0015	mg/L		03/19/14 09:45	03/24/14 20:54	1

Lab Sample ID: LCS 480-170727/2-A
Matrix: Water
Analysis Batch: 171729

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.65		mg/L		107	80 - 120
Arsenic	0.200	0.217		mg/L		109	80 - 120
Barium	0.200	0.204		mg/L		102	80 - 120
Beryllium	0.200	0.198		mg/L		99	80 - 120
Cadmium	0.200	0.204		mg/L		102	80 - 120
Calcium	10.0	10.50		mg/L		105	80 - 120
Chromium	0.200	0.203		mg/L		102	80 - 120
Cobalt	0.200	0.203		mg/L		102	80 - 120
Copper	0.200	0.198		mg/L		99	80 - 120
Iron	10.0	9.64		mg/L		96	80 - 120
Lead	0.200	0.207		mg/L		104	80 - 120
Magnesium	10.0	10.36		mg/L		104	80 - 120
Manganese	0.200	0.185		mg/L		93	80 - 120
Nickel	0.200	0.206		mg/L		103	80 - 120
Potassium	10.0	9.89		mg/L		99	80 - 120
Selenium	0.200	0.215		mg/L		107	80 - 120
Silver	0.0500	0.0496		mg/L		99	80 - 120
Sodium	10.0	9.97		mg/L		100	80 - 120
Vanadium	0.200	0.195		mg/L		98	80 - 120
Zinc	0.200	0.202		mg/L		101	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-56183-2 MS
Matrix: Ground Water
Analysis Batch: 171729

Client Sample ID: 9-I
Prep Type: Total/NA
Prep Batch: 170727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND		10.0	10.81		mg/L		108	75 - 125
Arsenic	ND		0.200	0.221		mg/L		111	75 - 125
Barium	0.0061		0.200	0.212		mg/L		103	75 - 125
Beryllium	ND		0.200	0.196		mg/L		98	75 - 125
Cadmium	ND		0.200	0.202		mg/L		101	75 - 125
Calcium	6.6		10.0	16.84		mg/L		103	75 - 125
Chromium	0.011		0.200	0.209		mg/L		99	75 - 125
Cobalt	ND		0.200	0.203		mg/L		102	75 - 125
Copper	ND		0.200	0.203		mg/L		102	75 - 125
Iron	0.10		10.0	9.47		mg/L		94	75 - 125
Lead	ND		0.200	0.204		mg/L		102	75 - 125
Magnesium	1.6		10.0	11.75		mg/L		102	75 - 125
Manganese	0.0040		0.200	0.188		mg/L		92	75 - 125
Nickel	ND		0.200	0.205		mg/L		103	75 - 125
Potassium	0.64		10.0	10.76		mg/L		101	75 - 125
Selenium	ND		0.200	0.215		mg/L		108	75 - 125
Silver	ND		0.0500	0.0505		mg/L		101	75 - 125
Sodium	13.0		10.0	23.67		mg/L		106	75 - 125
Vanadium	ND		0.200	0.197		mg/L		98	75 - 125
Zinc	ND		0.200	0.198		mg/L		99	75 - 125

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 171729

Client Sample ID: 9-I
Prep Type: Total/NA
Prep Batch: 170727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND		10.0	10.28		mg/L		103	75 - 125	5	20
Arsenic	ND		0.200	0.209		mg/L		104	75 - 125	6	20
Barium	0.0061		0.200	0.205		mg/L		99	75 - 125	3	20
Beryllium	ND		0.200	0.188		mg/L		94	75 - 125	4	20
Cadmium	ND		0.200	0.191		mg/L		95	75 - 125	6	20
Calcium	6.6		10.0	16.33		mg/L		98	75 - 125	3	20
Chromium	0.011		0.200	0.205		mg/L		97	75 - 125	2	20
Cobalt	ND		0.200	0.193		mg/L		97	75 - 125	5	20
Copper	ND		0.200	0.195		mg/L		98	75 - 125	4	20
Iron	0.10		10.0	9.17		mg/L		91	75 - 125	3	20
Lead	ND		0.200	0.197		mg/L		98	75 - 125	4	20
Magnesium	1.6		10.0	11.36		mg/L		98	75 - 125	3	20
Manganese	0.0040		0.200	0.185		mg/L		91	75 - 125	1	20
Nickel	ND		0.200	0.194		mg/L		97	75 - 125	6	20
Potassium	0.64		10.0	10.40		mg/L		98	75 - 125	3	20
Selenium	ND		0.200	0.202		mg/L		101	75 - 125	6	20
Silver	ND		0.0500	0.0492		mg/L		98	75 - 125	3	20
Sodium	13.0		10.0	22.90		mg/L		99	75 - 125	3	20
Vanadium	ND		0.200	0.192		mg/L		96	75 - 125	2	20
Zinc	ND		0.200	0.198		mg/L		99	75 - 125	0	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-170961/1-A
Matrix: Water
Analysis Batch: 172542

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170961

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/20/14 09:40	03/27/14 19:30	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/27/14 19:30	1
Barium	ND		0.0020	0.00070	mg/L		03/20/14 09:40	03/27/14 19:30	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/27/14 19:30	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/27/14 19:30	1
Calcium	ND		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 19:30	1
Chromium	ND		0.0040	0.0010	mg/L		03/20/14 09:40	03/27/14 19:30	1
Cobalt	ND		0.0040	0.00063	mg/L		03/20/14 09:40	03/27/14 19:30	1
Copper	ND		0.010	0.0016	mg/L		03/20/14 09:40	03/27/14 19:30	1
Iron	ND		0.050	0.019	mg/L		03/20/14 09:40	03/27/14 19:30	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/27/14 19:30	1
Magnesium	ND		0.20	0.043	mg/L		03/20/14 09:40	03/27/14 19:30	1
Manganese	0.000890	J	0.0030	0.00040	mg/L		03/20/14 09:40	03/27/14 19:30	1
Nickel	ND		0.010	0.0013	mg/L		03/20/14 09:40	03/27/14 19:30	1
Potassium	ND		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 19:30	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/27/14 19:30	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/27/14 19:30	1
Sodium	0.494	J	1.0	0.32	mg/L		03/20/14 09:40	03/27/14 19:30	1
Vanadium	ND		0.0050	0.0015	mg/L		03/20/14 09:40	03/27/14 19:30	1
Zinc	0.00200	J	0.010	0.0015	mg/L		03/20/14 09:40	03/27/14 19:30	1

Lab Sample ID: LCS 480-170961/2-A
Matrix: Water
Analysis Batch: 172542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.70		mg/L		107	80 - 120
Arsenic	0.200	0.227		mg/L		114	80 - 120
Barium	0.200	0.214		mg/L		107	80 - 120
Beryllium	0.200	0.226		mg/L		113	80 - 120
Cadmium	0.200	0.215		mg/L		107	80 - 120
Calcium	10.0	10.46		mg/L		105	80 - 120
Chromium	0.200	0.213		mg/L		106	80 - 120
Cobalt	0.200	0.213		mg/L		106	80 - 120
Copper	0.200	0.210		mg/L		105	80 - 120
Iron	10.0	11.07		mg/L		111	80 - 120
Lead	0.200	0.217		mg/L		108	80 - 120
Magnesium	10.0	11.01		mg/L		110	80 - 120
Manganese	0.200	0.232		mg/L		116	80 - 120
Nickel	0.200	0.216		mg/L		108	80 - 120
Potassium	10.0	10.60		mg/L		106	80 - 120
Selenium	0.200	0.223		mg/L		111	80 - 120
Silver	0.0500	0.0548		mg/L		110	80 - 120
Sodium	10.0	10.21		mg/L		102	80 - 120
Vanadium	0.200	0.205		mg/L		103	80 - 120
Zinc	0.200	0.207		mg/L		104	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-170964/1-A
Matrix: Water
Analysis Batch: 172274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170964

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/20/14 09:40	03/27/14 03:45	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/27/14 03:45	1
Barium	ND		0.0020	0.00070	mg/L		03/20/14 09:40	03/27/14 03:45	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/27/14 03:45	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/27/14 03:45	1
Calcium	ND		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 03:45	1
Chromium	ND		0.0040	0.0010	mg/L		03/20/14 09:40	03/27/14 03:45	1
Cobalt	ND		0.0040	0.00063	mg/L		03/20/14 09:40	03/27/14 03:45	1
Copper	ND		0.010	0.0016	mg/L		03/20/14 09:40	03/27/14 03:45	1
Iron	ND		0.050	0.019	mg/L		03/20/14 09:40	03/27/14 03:45	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/27/14 03:45	1
Magnesium	ND		0.20	0.043	mg/L		03/20/14 09:40	03/27/14 03:45	1
Manganese	0.00100	J	0.0030	0.00040	mg/L		03/20/14 09:40	03/27/14 03:45	1
Nickel	ND		0.010	0.0013	mg/L		03/20/14 09:40	03/27/14 03:45	1
Potassium	ND		0.50	0.10	mg/L		03/20/14 09:40	03/27/14 03:45	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/27/14 03:45	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/27/14 03:45	1
Sodium	ND		1.0	0.32	mg/L		03/20/14 09:40	03/27/14 03:45	1
Vanadium	ND		0.0050	0.0015	mg/L		03/20/14 09:40	03/27/14 03:45	1

Lab Sample ID: MB 480-170964/1-A
Matrix: Water
Analysis Batch: 172551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170964

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		03/20/14 09:40	03/27/14 16:25	1

Lab Sample ID: LCS 480-170964/2-A
Matrix: Water
Analysis Batch: 172274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170964

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.95		mg/L		110	80 - 120
Arsenic	0.200	0.214		mg/L		107	80 - 120
Barium	0.200	0.229		mg/L		114	80 - 120
Beryllium	0.200	0.222		mg/L		111	80 - 120
Cadmium	0.200	0.205		mg/L		103	80 - 120
Calcium	10.0	10.45		mg/L		105	80 - 120
Chromium	0.200	0.221		mg/L		110	80 - 120
Cobalt	0.200	0.206		mg/L		103	80 - 120
Copper	0.200	0.218		mg/L		109	80 - 120
Iron	10.0	10.25		mg/L		102	80 - 120
Lead	0.200	0.206		mg/L		103	80 - 120
Magnesium	10.0	10.87		mg/L		109	80 - 120
Manganese	0.200	0.212		mg/L		106	80 - 120
Nickel	0.200	0.201		mg/L		101	80 - 120
Potassium	10.0	10.67		mg/L		107	80 - 120
Selenium	0.200	0.210		mg/L		105	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-170964/2-A
Matrix: Water
Analysis Batch: 172274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170964

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0548		mg/L		110	80 - 120
Sodium	10.0	10.72		mg/L		107	80 - 120
Vanadium	0.200	0.226		mg/L		113	80 - 120

Lab Sample ID: LCS 480-170964/2-A
Matrix: Water
Analysis Batch: 172551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170964

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.209		mg/L		105	80 - 120

Lab Sample ID: 480-56251-5 MS
Matrix: Ground Water
Analysis Batch: 172899

Client Sample ID: 8-R
Prep Type: Total/NA
Prep Batch: 170964

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND		10.0	10.72		mg/L		107	75 - 125
Arsenic	ND		0.200	0.213		mg/L		107	75 - 125
Barium	0.013		0.200	0.225		mg/L		106	75 - 125
Beryllium	ND		0.200	0.198		mg/L		99	75 - 125
Cadmium	ND		0.200	0.206		mg/L		103	75 - 125
Calcium	165		10.0	180.2	4	mg/L		149	75 - 125
Chromium	ND		0.200	0.209		mg/L		105	75 - 125
Cobalt	0.010		0.200	0.208		mg/L		99	75 - 125
Copper	0.0040	J	0.200	0.208		mg/L		102	75 - 125
Iron	0.21		10.0	9.74		mg/L		95	75 - 125
Lead	ND		0.200	0.198		mg/L		99	75 - 125
Magnesium	43.3		10.0	54.58	4	mg/L		113	75 - 125
Manganese	1.9	B	0.200	2.15	4	mg/L		103	75 - 125
Nickel	0.011		0.200	0.197		mg/L		93	75 - 125
Potassium	3.2		10.0	13.59		mg/L		104	75 - 125
Selenium	ND		0.200	0.204		mg/L		102	75 - 125
Silver	ND		0.0500	0.0541		mg/L		108	75 - 125
Sodium	37.8		10.0	44.53	F1	mg/L		67	75 - 125
Vanadium	ND		0.200	0.230		mg/L		115	75 - 125
Zinc	0.0023	J	0.200	0.190		mg/L		94	75 - 125

Lab Sample ID: 480-56251-5 MSD
Matrix: Ground Water
Analysis Batch: 172899

Client Sample ID: 8-R
Prep Type: Total/NA
Prep Batch: 170964

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND		10.0	10.41		mg/L		104	75 - 125	3	20
Arsenic	ND		0.200	0.210		mg/L		105	75 - 125	1	20
Barium	0.013		0.200	0.220		mg/L		104	75 - 125	2	20
Beryllium	ND		0.200	0.195		mg/L		97	75 - 125	1	20
Cadmium	ND		0.200	0.206		mg/L		103	75 - 125	0	20
Calcium	165		10.0	175.9	4	mg/L		106	75 - 125	2	20
Chromium	ND		0.200	0.206		mg/L		103	75 - 125	2	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-56251-5 MSD
Matrix: Ground Water
Analysis Batch: 172899

Client Sample ID: 8-R
Prep Type: Total/NA
Prep Batch: 170964

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.010		0.200	0.209		mg/L		99	75 - 125	0	20
Copper	0.0040	J	0.200	0.203		mg/L		99	75 - 125	3	20
Iron	0.21		10.0	9.62		mg/L		94	75 - 125	1	20
Lead	ND		0.200	0.200		mg/L		100	75 - 125	1	20
Magnesium	43.3		10.0	54.01	4	mg/L		107	75 - 125	1	20
Manganese	1.9	B	0.200	2.13	4	mg/L		91	75 - 125	1	20
Nickel	0.011		0.200	0.199		mg/L		94	75 - 125	1	20
Potassium	3.2		10.0	13.14		mg/L		99	75 - 125	3	20
Selenium	ND		0.200	0.200		mg/L		100	75 - 125	2	20
Silver	ND		0.0500	0.0536		mg/L		107	75 - 125	1	20
Sodium	37.8		10.0	48.41		mg/L		106	75 - 125	8	20
Vanadium	ND		0.200	0.225		mg/L		113	75 - 125	2	20
Zinc	0.0023	J	0.200	0.190		mg/L		94	75 - 125	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 480-171685/1-A
Matrix: Water
Analysis Batch: 172588

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171685

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/28/14 05:32	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/28/14 05:32	1

Lab Sample ID: LCS 480-171685/2-A
Matrix: Water
Analysis Batch: 172588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171685

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	20.59		ug/L		103	80 - 120
Thallium	20.0	19.82		ug/L		99	80 - 120

Lab Sample ID: 480-56183-2 MS
Matrix: Ground Water
Analysis Batch: 172588

Client Sample ID: 9-I
Prep Type: Total/NA
Prep Batch: 171685

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		20.0	20.46		ug/L		102	75 - 125
Thallium	ND		20.0	19.86		ug/L		99	75 - 125

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 172588

Client Sample ID: 9-I
Prep Type: Total/NA
Prep Batch: 171685

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		20.0	20.14		ug/L		101	75 - 125	2	20
Thallium	ND		20.0	19.53		ug/L		98	75 - 125	2	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 480-171687/1-A
Matrix: Water
Analysis Batch: 172961

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171687

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/25/14 08:50	03/31/14 08:20	1
Thallium	ND		0.50	0.0080	ug/L		03/25/14 08:50	03/31/14 08:20	1

Lab Sample ID: LCS 480-171687/2-A
Matrix: Water
Analysis Batch: 172961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171687

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	21.50		ug/L		108	80 - 120
Thallium	20.0	22.48		ug/L		112	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-170777/1-A
Matrix: Water
Analysis Batch: 170866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:17	1

Lab Sample ID: LCS 480-170777/2-A
Matrix: Water
Analysis Batch: 170866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00615		mg/L		92	80 - 120

Lab Sample ID: 480-56183-2 MS
Matrix: Ground Water
Analysis Batch: 170866

Client Sample ID: 9-I
Prep Type: Total/NA
Prep Batch: 170777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00667	0.00530		mg/L		79	75 - 125

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 170866

Client Sample ID: 9-I
Prep Type: Total/NA
Prep Batch: 170777

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00643		mg/L		96	75 - 125	19	20

Lab Sample ID: MB 480-170951/1-A
Matrix: Water
Analysis Batch: 171233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 08:54	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 480-170951/2-A
Matrix: Water
Analysis Batch: 171233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00715		mg/L		107	80 - 120

Method: 310.2 - Alkalinity

Lab Sample ID: MB 480-170878/106
Matrix: Water
Analysis Batch: 170878

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/19/14 15:32	1

Lab Sample ID: LCS 480-170878/105
Matrix: Water
Analysis Batch: 170878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	49.64		mg/L		99	90 - 110

Lab Sample ID: 480-56183-2 MS
Matrix: Ground Water
Analysis Batch: 170878

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	18.9		20.0	38.40		mg/L		98	42 - 116

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 170878

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity, Total	18.9		20.0	38.68		mg/L		99	42 - 116	1	20

Lab Sample ID: MB 480-171112/58
Matrix: Water
Analysis Batch: 171112

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	4.72	J	10.0	4.0	mg/L			03/20/14 10:09	1

Lab Sample ID: MB 480-171112/7
Matrix: Water
Analysis Batch: 171112

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/20/14 07:37	1

Method: 310.2 - Alkalinity (Continued)

Lab Sample ID: LCS 480-171112/57
Matrix: Water
Analysis Batch: 171112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	49.68		mg/L		99	90 - 110

Lab Sample ID: LCS 480-171112/6
Matrix: Water
Analysis Batch: 171112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	47.28		mg/L		95	90 - 110

Lab Sample ID: MB 480-171308/18
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/21/14 09:20	1

Lab Sample ID: MB 480-171308/36
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/21/14 10:30	1

Lab Sample ID: LCS 480-171308/17
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	50.70		mg/L		101	90 - 110

Lab Sample ID: LCS 480-171308/35
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	50.60		mg/L		101	90 - 110

Lab Sample ID: 480-56251-4 MS
Matrix: Ground Water
Analysis Batch: 171308

Client Sample ID: 8-OS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	56.7		20.0	77.56		mg/L		104	42 - 116

Lab Sample ID: 480-56251-4 DU
Matrix: Ground Water
Analysis Batch: 171308

Client Sample ID: 8-OS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	56.7		56.20		mg/L		0.9	20

Lab Sample ID: MB 480-171584/61
Matrix: Water
Analysis Batch: 171584

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/24/14 13:29	1

Lab Sample ID: MB 480-171584/7
Matrix: Water
Analysis Batch: 171584

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/24/14 07:58	1

Lab Sample ID: LCS 480-171584/6
Matrix: Water
Analysis Batch: 171584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	48.82		mg/L		98	90 - 110

Lab Sample ID: LCS 480-171584/60
Matrix: Water
Analysis Batch: 171584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	47.60		mg/L		95	90 - 110

Lab Sample ID: MB 480-171691/7
Matrix: Water
Analysis Batch: 171691

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/25/14 00:37	1

Lab Sample ID: LCS 480-171691/6
Matrix: Water
Analysis Batch: 171691

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	49.13		mg/L		98	90 - 110

Lab Sample ID: MB 480-172385/10
Matrix: Water
Analysis Batch: 172385

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/27/14 10:34	1

Lab Sample ID: MB 480-172385/38
Matrix: Water
Analysis Batch: 172385

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	4.07	J	10.0	4.0	mg/L			03/27/14 11:46	1

Method: 310.2 - Alkalinity (Continued)

Lab Sample ID: LCS 480-172385/37
Matrix: Water
Analysis Batch: 172385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	51.39		mg/L		103	90 - 110

Lab Sample ID: LCS 480-172385/9
Matrix: Water
Analysis Batch: 172385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	49.24		mg/L		98	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-170933/1-A
Matrix: Water
Analysis Batch: 171274

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170933

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/20/14 06:59	03/21/14 09:57	1

Lab Sample ID: LCS 480-170933/2-A
Matrix: Water
Analysis Batch: 171274

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170933

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.41		mg/L		96	90 - 110

Lab Sample ID: 480-56183-5 MS
Matrix: Water
Analysis Batch: 171274

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 170933

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.5		1.00	3.95	F1	mg/L		142	90 - 110

Lab Sample ID: 480-56183-5 DU
Matrix: Water
Analysis Batch: 171274

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 170933

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	2.5		2.52		mg/L		0.3	20

Lab Sample ID: MB 480-171323/1-A
Matrix: Water
Analysis Batch: 171382

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171323

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 08:33	1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 480-171323/2-A — Client Sample ID: Lab Control Sample
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 171382 — Prep Batch: 171323

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.26		mg/L		90	90 - 110

Lab Sample ID: 480-56251-8 MS — Client Sample ID: 4-OS
Matrix: Ground Water — Prep Type: Total/NA
Analysis Batch: 171382 — Prep Batch: 171323

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	ND		1.00	0.801	F1	mg/L		80	90 - 110

Lab Sample ID: MB 480-171324/1-A — Client Sample ID: Method Blank
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 171382 — Prep Batch: 171324

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:31	03/22/14 08:33	1

Lab Sample ID: LCS 480-171324/2-A — Client Sample ID: Lab Control Sample
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 171382 — Prep Batch: 171324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.33		mg/L		93	90 - 110

Lab Sample ID: 480-56183-2 MS — Client Sample ID: 9-I
Matrix: Ground Water — Prep Type: Total/NA
Analysis Batch: 171382 — Prep Batch: 171324

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	ND		1.00	0.915		mg/L		91	90 - 110

Lab Sample ID: 480-56183-2 MSD — Client Sample ID: 9-I
Matrix: Ground Water — Prep Type: Total/NA
Analysis Batch: 171382 — Prep Batch: 171324

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Kjeldahl Nitrogen	ND		1.00	0.785	F1	mg/L		79	90 - 110	15	20

Lab Sample ID: MB 480-171722/1-A — Client Sample ID: Method Blank
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 171876 — Prep Batch: 171722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/25/14 08:32	03/25/14 16:30	1

Lab Sample ID: LCS 480-171722/2-A — Client Sample ID: Lab Control Sample
Matrix: Water — Prep Type: Total/NA
Analysis Batch: 171876 — Prep Batch: 171722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.30		mg/L		92	90 - 110

Lab Sample ID: MB 480-172043/1-A
Matrix: Water
Analysis Batch: 172372

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 172043

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/26/14 11:52	03/27/14 10:41	1

Lab Sample ID: LCS 480-172043/2-A
Matrix: Water
Analysis Batch: 172372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 172043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.26		mg/L		90	90 - 110

Lab Sample ID: MB 480-173215/1-A
Matrix: Water
Analysis Batch: 173430

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		04/01/14 16:31	04/02/14 12:21	1

Lab Sample ID: LCS 480-173215/2-A
Matrix: Water
Analysis Batch: 173430

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 173215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.37		mg/L		95	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-170702/27
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.25	J	10.0	5.0	mg/L			03/18/14 21:50	1

Lab Sample ID: MB 480-170702/3
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.93	J	10.0	5.0	mg/L			03/18/14 21:50	1

Lab Sample ID: MB 480-170702/51
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/18/14 21:50	1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 480-170702/28
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.44		mg/L		106	90 - 110

Lab Sample ID: LCS 480-170702/4
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.76		mg/L		107	90 - 110

Lab Sample ID: LCS 480-170702/52
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	27.07		mg/L		108	90 - 110

Lab Sample ID: 480-56183-2 MS
Matrix: Ground Water
Analysis Batch: 170702

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		50.0	46.95		mg/L		94	75 - 125

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 170702

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		50.0	44.74		mg/L		89	75 - 125	5	20

Lab Sample ID: MB 480-170903/27
Matrix: Water
Analysis Batch: 170903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.25	J	10.0	5.0	mg/L			03/19/14 21:44	1

Lab Sample ID: MB 480-170903/51
Matrix: Water
Analysis Batch: 170903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	7.19	J	10.0	5.0	mg/L			03/19/14 21:44	1

Lab Sample ID: LCS 480-170903/28
Matrix: Water
Analysis Batch: 170903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	23.28		mg/L		93	90 - 110

Lab Sample ID: LCS 480-170903/52
Matrix: Water
Analysis Batch: 170903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.44		mg/L		106	90 - 110

Lab Sample ID: 480-56251-1 MS
Matrix: Ground Water
Analysis Batch: 170903

Client Sample ID: 2-OS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	8.5	J B	50.0	59.57		mg/L		102	75 - 125

Lab Sample ID: 480-56251-1 DU
Matrix: Ground Water
Analysis Batch: 170903

Client Sample ID: 2-OS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	8.5	J B	8.77	J	mg/L		4	20

Lab Sample ID: MB 480-171626/27
Matrix: Water
Analysis Batch: 171626

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/24/14 18:30	1

Lab Sample ID: MB 480-171626/51
Matrix: Water
Analysis Batch: 171626

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.56	J	10.0	5.0	mg/L			03/24/14 18:30	1

Lab Sample ID: LCS 480-171626/28
Matrix: Water
Analysis Batch: 171626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	27.07		mg/L		108	90 - 110

Lab Sample ID: LCS 480-171626/52
Matrix: Water
Analysis Batch: 171626

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	27.07		mg/L		108	90 - 110

Lab Sample ID: 480-56251-9 MS
Matrix: Ground Water
Analysis Batch: 171626

Client Sample ID: 5-OS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	7.8	J B	50.0	51.36		mg/L		87	75 - 125

Method: 410.4 - COD (Continued)

Lab Sample ID: MB 480-172101/3
Matrix: Water
Analysis Batch: 172101

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/26/14 12:11	1

Lab Sample ID: MB 480-172101/75
Matrix: Water
Analysis Batch: 172101

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/26/14 13:12	1

Lab Sample ID: LCS 480-172101/4
Matrix: Water
Analysis Batch: 172101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.44		mg/L		106	90 - 110

Lab Sample ID: LCS 480-172101/76
Matrix: Water
Analysis Batch: 172101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.44		mg/L		106	90 - 110

Lab Sample ID: 480-56251-5 MS
Matrix: Ground Water
Analysis Batch: 172101

Client Sample ID: 8-R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	15.7		50.0	86.07	F1	mg/L		141	75 - 125

Method: SM 2340C - Hardness, Total

Lab Sample ID: MB 480-170845/51
Matrix: Water
Analysis Batch: 170845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.0	0.53	mg/L			03/19/14 07:50	1

Lab Sample ID: LCS 480-170845/52
Matrix: Water
Analysis Batch: 170845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	298	300.0		mg/L		101	90 - 110

Method: SM 2340C - Hardness, Total (Continued)

Lab Sample ID: 480-56183-2 MS
Matrix: Ground Water
Analysis Batch: 170845

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	28.0		200	224.0		mg/L		98	74 - 130

Lab Sample ID: 480-56183-2 MSD
Matrix: Ground Water
Analysis Batch: 170845

Client Sample ID: 9-I
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness as calcium carbonate	28.0		200	224.0		mg/L		98	74 - 130	0	15

Lab Sample ID: 480-56183-1 DU
Matrix: Ground Water
Analysis Batch: 170845

Client Sample ID: 7-OS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	172		172.0		mg/L		0	15

Lab Sample ID: 480-56183-5 DU
Matrix: Water
Analysis Batch: 170845

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	28.0		28.00		mg/L		0	15

Lab Sample ID: MB 480-171055/27
Matrix: Water
Analysis Batch: 171055

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.0	0.53	mg/L			03/20/14 08:00	1

Lab Sample ID: MB 480-171055/3
Matrix: Water
Analysis Batch: 171055

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.0	0.53	mg/L			03/20/14 08:00	1

Lab Sample ID: LCS 480-171055/28
Matrix: Water
Analysis Batch: 171055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	298	296.0		mg/L		99	90 - 110

Lab Sample ID: LCS 480-171055/4
Matrix: Water
Analysis Batch: 171055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	298	292.0		mg/L		98	90 - 110

Lab Sample ID: 480-56251-B-4 MS
Matrix: Ground Water
Analysis Batch: 171055

Client Sample ID: 480-56251-B-4 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	44.00		200	264.0		mg/L		110	74 - 130

Lab Sample ID: 480-56251-B-4 MSD
Matrix: Ground Water
Analysis Batch: 171055

Client Sample ID: 480-56251-B-4 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hardness as calcium carbonate	44.00		200	268.0		mg/L		112	74 - 130	2	15

Lab Sample ID: 480-56251-2 DU
Matrix: Ground Water
Analysis Batch: 171055

Client Sample ID: 1-OS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	204		200.0		mg/L		4	15

GC/MS VOA

Analysis Batch: 170672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	8260C	
480-56183-2	9-I	Total/NA	Ground Water	8260C	
480-56183-2 MS	9-I	Total/NA	Ground Water	8260C	
480-56183-2 MSD	9-I	Total/NA	Ground Water	8260C	
480-56183-3	9-OS	Total/NA	Ground Water	8260C	
480-56183-4	9-R	Total/NA	Ground Water	8260C	
480-56183-5	Duplicate	Total/NA	Water	8260C	
480-56183-6	TB	Total/NA	Water	8260C	
LCS 480-170672/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-170672/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 170899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	8260C	
480-56251-2	1-OS	Total/NA	Ground Water	8260C	
480-56251-3	8-I	Total/NA	Ground Water	8260C	
480-56251-4	8-OS	Total/NA	Ground Water	8260C	
480-56251-5	8-R	Total/NA	Ground Water	8260C	
480-56251-6	TB	Total/NA	Water	8260C	
LCS 480-170899/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-170899/6	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-170899/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 171118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-7	3-OS/I	Total/NA	Ground Water	8260C	
480-56251-8	4-OS	Total/NA	Ground Water	8260C	
480-56251-9	5-OS	Total/NA	Ground Water	8260C	
LCS 480-171118/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-171118/6	Method Blank	Total/NA	Water	8260C	

Metals

Prep Batch: 170727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	3005A	
480-56183-2	9-I	Total/NA	Ground Water	3005A	
480-56183-2 MS	9-I	Total/NA	Ground Water	3005A	
480-56183-2 MSD	9-I	Total/NA	Ground Water	3005A	
480-56183-3	9-OS	Total/NA	Ground Water	3005A	
480-56183-4	9-R	Total/NA	Ground Water	3005A	
480-56183-5	Duplicate	Total/NA	Water	3005A	
LCS 480-170727/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-170727/1-A	Method Blank	Total/NA	Water	3005A	

Prep Batch: 170777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	7470A	
480-56183-2	9-I	Total/NA	Ground Water	7470A	
480-56183-2 MS	9-I	Total/NA	Ground Water	7470A	

Metals (Continued)

Prep Batch: 170777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-2 MSD	9-I	Total/NA	Ground Water	7470A	
480-56183-3	9-OS	Total/NA	Ground Water	7470A	
480-56183-4	9-R	Total/NA	Ground Water	7470A	
480-56183-5	Duplicate	Total/NA	Water	7470A	
LCS 480-170777/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 480-170777/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 170866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	7470A	170777
480-56183-2	9-I	Total/NA	Ground Water	7470A	170777
480-56183-2 MS	9-I	Total/NA	Ground Water	7470A	170777
480-56183-2 MSD	9-I	Total/NA	Ground Water	7470A	170777
480-56183-3	9-OS	Total/NA	Ground Water	7470A	170777
480-56183-4	9-R	Total/NA	Ground Water	7470A	170777
480-56183-5	Duplicate	Total/NA	Water	7470A	170777
LCS 480-170777/2-A	Lab Control Sample	Total/NA	Water	7470A	170777
MB 480-170777/1-A	Method Blank	Total/NA	Water	7470A	170777

Prep Batch: 170951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	7470A	
480-56251-2	1-OS	Total/NA	Ground Water	7470A	
480-56251-3	8-I	Total/NA	Ground Water	7470A	
480-56251-4	8-OS	Total/NA	Ground Water	7470A	
480-56251-5	8-R	Total/NA	Ground Water	7470A	
480-56251-7	3-OS/I	Total/NA	Ground Water	7470A	
480-56251-8	4-OS	Total/NA	Ground Water	7470A	
480-56251-9	5-OS	Total/NA	Ground Water	7470A	
LCS 480-170951/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 480-170951/1-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 170961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	3005A	
480-56251-2	1-OS	Total/NA	Ground Water	3005A	
480-56251-3	8-I	Total/NA	Ground Water	3005A	
480-56251-4	8-OS	Total/NA	Ground Water	3005A	
LCS 480-170961/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-170961/1-A	Method Blank	Total/NA	Water	3005A	

Prep Batch: 170964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-5	8-R	Total/NA	Ground Water	3005A	
480-56251-5 MS	8-R	Total/NA	Ground Water	3005A	
480-56251-5 MSD	8-R	Total/NA	Ground Water	3005A	
480-56251-7	3-OS/I	Total/NA	Ground Water	3005A	
480-56251-8	4-OS	Total/NA	Ground Water	3005A	
480-56251-9	5-OS	Total/NA	Ground Water	3005A	
LCS 480-170964/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-170964/1-A	Method Blank	Total/NA	Water	3005A	

Metals (Continued)

Analysis Batch: 171233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	7470A	170951
480-56251-2	1-OS	Total/NA	Ground Water	7470A	170951
480-56251-3	8-I	Total/NA	Ground Water	7470A	170951
480-56251-4	8-OS	Total/NA	Ground Water	7470A	170951
480-56251-5	8-R	Total/NA	Ground Water	7470A	170951
480-56251-7	3-OS/I	Total/NA	Ground Water	7470A	170951
480-56251-8	4-OS	Total/NA	Ground Water	7470A	170951
480-56251-9	5-OS	Total/NA	Ground Water	7470A	170951
LCS 480-170951/2-A	Lab Control Sample	Total/NA	Water	7470A	170951
MB 480-170951/1-A	Method Blank	Total/NA	Water	7470A	170951

Analysis Batch: 171512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	6010C	170961
480-56251-2	1-OS	Total/NA	Ground Water	6010C	170961
480-56251-3	8-I	Total/NA	Ground Water	6010C	170961
480-56251-4	8-OS	Total/NA	Ground Water	6010C	170961

Prep Batch: 171685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	3020A	
480-56183-2	9-I	Total/NA	Ground Water	3020A	
480-56183-2 MS	9-I	Total/NA	Ground Water	3020A	
480-56183-2 MSD	9-I	Total/NA	Ground Water	3020A	
480-56183-3	9-OS	Total/NA	Ground Water	3020A	
480-56183-4	9-R	Total/NA	Ground Water	3020A	
480-56183-5	Duplicate	Total/NA	Water	3020A	
LCS 480-171685/2-A	Lab Control Sample	Total/NA	Water	3020A	
MB 480-171685/1-A	Method Blank	Total/NA	Water	3020A	

Prep Batch: 171687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	3020A	
480-56251-2	1-OS	Total/NA	Ground Water	3020A	
480-56251-3	8-I	Total/NA	Ground Water	3020A	
480-56251-4	8-OS	Total/NA	Ground Water	3020A	
480-56251-5	8-R	Total/NA	Ground Water	3020A	
480-56251-7	3-OS/I	Total/NA	Ground Water	3020A	
480-56251-8	4-OS	Total/NA	Ground Water	3020A	
480-56251-9	5-OS	Total/NA	Ground Water	3020A	
LCS 480-171687/2-A	Lab Control Sample	Total/NA	Water	3020A	
MB 480-171687/1-A	Method Blank	Total/NA	Water	3020A	

Analysis Batch: 171729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	6010C	170727
480-56183-2	9-I	Total/NA	Ground Water	6010C	170727
480-56183-2 MS	9-I	Total/NA	Ground Water	6010C	170727
480-56183-2 MSD	9-I	Total/NA	Ground Water	6010C	170727
480-56183-3	9-OS	Total/NA	Ground Water	6010C	170727
480-56183-4	9-R	Total/NA	Ground Water	6010C	170727

Metals (Continued)

Analysis Batch: 171729 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-5	Duplicate	Total/NA	Water	6010C	170727
LCS 480-170727/2-A	Lab Control Sample	Total/NA	Water	6010C	170727
MB 480-170727/1-A	Method Blank	Total/NA	Water	6010C	170727

Analysis Batch: 172274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-7	3-OS/I	Total/NA	Ground Water	6010C	170964
480-56251-8	4-OS	Total/NA	Ground Water	6010C	170964
480-56251-9	5-OS	Total/NA	Ground Water	6010C	170964
LCS 480-170964/2-A	Lab Control Sample	Total/NA	Water	6010C	170964
MB 480-170964/1-A	Method Blank	Total/NA	Water	6010C	170964

Analysis Batch: 172542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-170961/2-A	Lab Control Sample	Total/NA	Water	6010C	170961
MB 480-170961/1-A	Method Blank	Total/NA	Water	6010C	170961

Analysis Batch: 172551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-170964/2-A	Lab Control Sample	Total/NA	Water	6010C	170964
MB 480-170964/1-A	Method Blank	Total/NA	Water	6010C	170964

Analysis Batch: 172588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	6020	171685
480-56183-2	9-I	Total/NA	Ground Water	6020	171685
480-56183-2 MS	9-I	Total/NA	Ground Water	6020	171685
480-56183-2 MSD	9-I	Total/NA	Ground Water	6020	171685
480-56183-3	9-OS	Total/NA	Ground Water	6020	171685
480-56183-4	9-R	Total/NA	Ground Water	6020	171685
480-56183-5	Duplicate	Total/NA	Water	6020	171685
LCS 480-171685/2-A	Lab Control Sample	Total/NA	Water	6020	171685
MB 480-171685/1-A	Method Blank	Total/NA	Water	6020	171685

Analysis Batch: 172899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-5	8-R	Total/NA	Ground Water	6010C	170964
480-56251-5 MS	8-R	Total/NA	Ground Water	6010C	170964
480-56251-5 MSD	8-R	Total/NA	Ground Water	6010C	170964

Analysis Batch: 172961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	6020	171687
480-56251-2	1-OS	Total/NA	Ground Water	6020	171687
480-56251-3	8-I	Total/NA	Ground Water	6020	171687
480-56251-4	8-OS	Total/NA	Ground Water	6020	171687
480-56251-5	8-R	Total/NA	Ground Water	6020	171687
480-56251-7	3-OS/I	Total/NA	Ground Water	6020	171687
480-56251-8	4-OS	Total/NA	Ground Water	6020	171687
480-56251-9	5-OS	Total/NA	Ground Water	6020	171687
LCS 480-171687/2-A	Lab Control Sample	Total/NA	Water	6020	171687

Metals (Continued)

Analysis Batch: 172961 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-171687/1-A	Method Blank	Total/NA	Water	6020	171687

General Chemistry

Analysis Batch: 170702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	410.4	
480-56183-2	9-I	Total/NA	Ground Water	410.4	
480-56183-2 MS	9-I	Total/NA	Ground Water	410.4	
480-56183-2 MSD	9-I	Total/NA	Ground Water	410.4	
480-56183-3	9-OS	Total/NA	Ground Water	410.4	
480-56183-4	9-R	Total/NA	Ground Water	410.4	
480-56183-5	Duplicate	Total/NA	Water	410.4	
LCS 480-170702/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-170702/4	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-170702/52	Lab Control Sample	Total/NA	Water	410.4	
MB 480-170702/27	Method Blank	Total/NA	Water	410.4	
MB 480-170702/3	Method Blank	Total/NA	Water	410.4	
MB 480-170702/51	Method Blank	Total/NA	Water	410.4	

Analysis Batch: 170845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	SM 2340C	
480-56183-1 DU	7-OS	Total/NA	Ground Water	SM 2340C	
480-56183-2	9-I	Total/NA	Ground Water	SM 2340C	
480-56183-2 MS	9-I	Total/NA	Ground Water	SM 2340C	
480-56183-2 MSD	9-I	Total/NA	Ground Water	SM 2340C	
480-56183-3	9-OS	Total/NA	Ground Water	SM 2340C	
480-56183-4	9-R	Total/NA	Ground Water	SM 2340C	
480-56183-5	Duplicate	Total/NA	Water	SM 2340C	
480-56183-5 DU	Duplicate	Total/NA	Water	SM 2340C	
LCS 480-170845/52	Lab Control Sample	Total/NA	Water	SM 2340C	
MB 480-170845/51	Method Blank	Total/NA	Water	SM 2340C	

Analysis Batch: 170878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	310.2	
480-56183-2	9-I	Total/NA	Ground Water	310.2	
480-56183-2 MS	9-I	Total/NA	Ground Water	310.2	
480-56183-2 MSD	9-I	Total/NA	Ground Water	310.2	
480-56183-4	9-R	Total/NA	Ground Water	310.2	
480-56183-5	Duplicate	Total/NA	Water	310.2	
LCS 480-170878/105	Lab Control Sample	Total/NA	Water	310.2	
MB 480-170878/106	Method Blank	Total/NA	Water	310.2	

Analysis Batch: 170903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	410.4	
480-56251-1 DU	2-OS	Total/NA	Ground Water	410.4	
480-56251-1 MS	2-OS	Total/NA	Ground Water	410.4	

General Chemistry (Continued)

Analysis Batch: 170903 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-2	1-OS	Total/NA	Ground Water	410.4	
480-56251-3	8-I	Total/NA	Ground Water	410.4	
480-56251-4	8-OS	Total/NA	Ground Water	410.4	
LCS 480-170903/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-170903/52	Lab Control Sample	Total/NA	Water	410.4	
MB 480-170903/27	Method Blank	Total/NA	Water	410.4	
MB 480-170903/51	Method Blank	Total/NA	Water	410.4	

Prep Batch: 170933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-5	Duplicate	Total/NA	Water	351.2	
480-56183-5 DU	Duplicate	Total/NA	Water	351.2	
480-56183-5 MS	Duplicate	Total/NA	Water	351.2	
LCS 480-170933/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-170933/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 171055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	SM 2340C	
480-56251-2	1-OS	Total/NA	Ground Water	SM 2340C	
480-56251-2 DU	1-OS	Total/NA	Ground Water	SM 2340C	
480-56251-3	8-I	Total/NA	Ground Water	SM 2340C	
480-56251-4	8-OS	Total/NA	Ground Water	SM 2340C	
480-56251-5	8-R	Total/NA	Ground Water	SM 2340C	
480-56251-7	3-OS/I	Total/NA	Ground Water	SM 2340C	
480-56251-8	4-OS	Total/NA	Ground Water	SM 2340C	
480-56251-9	5-OS	Total/NA	Ground Water	SM 2340C	
480-56251-B-4 MS	480-56251-B-4 MS	Total/NA	Ground Water	SM 2340C	
480-56251-B-4 MSD	480-56251-B-4 MSD	Total/NA	Ground Water	SM 2340C	
LCS 480-171055/28	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 480-171055/4	Lab Control Sample	Total/NA	Water	SM 2340C	
MB 480-171055/27	Method Blank	Total/NA	Water	SM 2340C	
MB 480-171055/3	Method Blank	Total/NA	Water	SM 2340C	

Analysis Batch: 171112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-3	9-OS	Total/NA	Ground Water	310.2	
LCS 480-171112/57	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-171112/6	Lab Control Sample	Total/NA	Water	310.2	
MB 480-171112/58	Method Blank	Total/NA	Water	310.2	
MB 480-171112/7	Method Blank	Total/NA	Water	310.2	

Analysis Batch: 171274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-5	Duplicate	Total/NA	Water	351.2	170933
480-56183-5 DU	Duplicate	Total/NA	Water	351.2	170933
480-56183-5 MS	Duplicate	Total/NA	Water	351.2	170933
LCS 480-170933/2-A	Lab Control Sample	Total/NA	Water	351.2	170933
MB 480-170933/1-A	Method Blank	Total/NA	Water	351.2	170933

General Chemistry (Continued)

Analysis Batch: 171308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-3	8-I	Total/NA	Ground Water	310.2	
480-56251-4	8-OS	Total/NA	Ground Water	310.2	
480-56251-4 DU	8-OS	Total/NA	Ground Water	310.2	
480-56251-4 MS	8-OS	Total/NA	Ground Water	310.2	
480-56251-5	8-R	Total/NA	Ground Water	310.2	
480-56251-7	3-OS/I	Total/NA	Ground Water	310.2	
LCS 480-171308/17	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-171308/35	Lab Control Sample	Total/NA	Water	310.2	
MB 480-171308/18	Method Blank	Total/NA	Water	310.2	
MB 480-171308/36	Method Blank	Total/NA	Water	310.2	

Prep Batch: 171323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	351.2	
480-56251-1	2-OS	Total/NA	Ground Water	351.2	
480-56251-2	1-OS	Total/NA	Ground Water	351.2	
480-56251-3	8-I	Total/NA	Ground Water	351.2	
480-56251-7	3-OS/I	Total/NA	Ground Water	351.2	
480-56251-8	4-OS	Total/NA	Ground Water	351.2	
480-56251-8 MS	4-OS	Total/NA	Ground Water	351.2	
480-56251-9	5-OS	Total/NA	Ground Water	351.2	
LCS 480-171323/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-171323/1-A	Method Blank	Total/NA	Water	351.2	

Prep Batch: 171324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-2	9-I	Total/NA	Ground Water	351.2	
480-56183-2 MS	9-I	Total/NA	Ground Water	351.2	
480-56183-2 MSD	9-I	Total/NA	Ground Water	351.2	
480-56183-3	9-OS	Total/NA	Ground Water	351.2	
LCS 480-171324/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-171324/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 171382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-1	7-OS	Total/NA	Ground Water	351.2	171323
480-56183-2	9-I	Total/NA	Ground Water	351.2	171324
480-56183-2 MS	9-I	Total/NA	Ground Water	351.2	171324
480-56183-2 MSD	9-I	Total/NA	Ground Water	351.2	171324
480-56183-3	9-OS	Total/NA	Ground Water	351.2	171324
480-56251-1	2-OS	Total/NA	Ground Water	351.2	171323
480-56251-2	1-OS	Total/NA	Ground Water	351.2	171323
480-56251-3	8-I	Total/NA	Ground Water	351.2	171323
480-56251-7	3-OS/I	Total/NA	Ground Water	351.2	171323
480-56251-8	4-OS	Total/NA	Ground Water	351.2	171323
480-56251-8 MS	4-OS	Total/NA	Ground Water	351.2	171323
480-56251-9	5-OS	Total/NA	Ground Water	351.2	171323
LCS 480-171323/2-A	Lab Control Sample	Total/NA	Water	351.2	171323
LCS 480-171324/2-A	Lab Control Sample	Total/NA	Water	351.2	171324
MB 480-171323/1-A	Method Blank	Total/NA	Water	351.2	171323
MB 480-171324/1-A	Method Blank	Total/NA	Water	351.2	171324

General Chemistry (Continued)

Analysis Batch: 171584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-1	2-OS	Total/NA	Ground Water	310.2	
480-56251-8	4-OS	Total/NA	Ground Water	310.2	
LCS 480-171584/6	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-171584/60	Lab Control Sample	Total/NA	Water	310.2	
MB 480-171584/61	Method Blank	Total/NA	Water	310.2	
MB 480-171584/7	Method Blank	Total/NA	Water	310.2	

Analysis Batch: 171626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-7	3-OS/I	Total/NA	Ground Water	410.4	
480-56251-8	4-OS	Total/NA	Ground Water	410.4	
480-56251-9	5-OS	Total/NA	Ground Water	410.4	
480-56251-9 MS	5-OS	Total/NA	Ground Water	410.4	
LCS 480-171626/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-171626/52	Lab Control Sample	Total/NA	Water	410.4	
MB 480-171626/27	Method Blank	Total/NA	Water	410.4	
MB 480-171626/51	Method Blank	Total/NA	Water	410.4	

Analysis Batch: 171691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-2	1-OS	Total/NA	Ground Water	310.2	
LCS 480-171691/6	Lab Control Sample	Total/NA	Water	310.2	
MB 480-171691/7	Method Blank	Total/NA	Water	310.2	

Prep Batch: 171722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-4	8-OS	Total/NA	Ground Water	351.2	
LCS 480-171722/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-171722/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 171876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-4	8-OS	Total/NA	Ground Water	351.2	171722
LCS 480-171722/2-A	Lab Control Sample	Total/NA	Water	351.2	171722
MB 480-171722/1-A	Method Blank	Total/NA	Water	351.2	171722

Prep Batch: 172043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-4	9-R	Total/NA	Ground Water	351.2	
LCS 480-172043/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-172043/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 172101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-5	8-R	Total/NA	Ground Water	410.4	
480-56251-5 MS	8-R	Total/NA	Ground Water	410.4	
LCS 480-172101/4	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-172101/76	Lab Control Sample	Total/NA	Water	410.4	
MB 480-172101/3	Method Blank	Total/NA	Water	410.4	
MB 480-172101/75	Method Blank	Total/NA	Water	410.4	

General Chemistry (Continued)

Analysis Batch: 172372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56183-4	9-R	Total/NA	Ground Water	351.2	172043
LCS 480-172043/2-A	Lab Control Sample	Total/NA	Water	351.2	172043
MB 480-172043/1-A	Method Blank	Total/NA	Water	351.2	172043

Analysis Batch: 172385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-9	5-OS	Total/NA	Ground Water	310.2	
LCS 480-172385/37	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-172385/9	Lab Control Sample	Total/NA	Water	310.2	
MB 480-172385/10	Method Blank	Total/NA	Water	310.2	
MB 480-172385/38	Method Blank	Total/NA	Water	310.2	

Prep Batch: 173215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-5	8-R	Total/NA	Ground Water	351.2	
LCS 480-173215/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-173215/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 173430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56251-5	8-R	Total/NA	Ground Water	351.2	173215
LCS 480-173215/2-A	Lab Control Sample	Total/NA	Water	351.2	173215
MB 480-173215/1-A	Method Blank	Total/NA	Water	351.2	173215

Client Sample ID: 7-OS
Date Collected: 03/17/14 16:55
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170672	03/18/14 23:53	NQN	TAL BUF
Total/NA	Prep	3005A			170727	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171729	03/24/14 21:00	HTL	TAL BUF
Total/NA	Prep	3020A			171685	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172588	03/28/14 05:43	MTM2	TAL BUF
Total/NA	Prep	7470A			170777	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	7470A		1	170866	03/19/14 14:21	LRK	TAL BUF
Total/NA	Analysis	310.2		2	170878	03/19/14 15:34	NCH	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:11	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170702	03/18/14 21:50	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: 9-I
Date Collected: 03/17/14 15:25
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170672	03/19/14 00:14	NQN	TAL BUF
Total/NA	Prep	3005A			170727	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171729	03/24/14 21:03	HTL	TAL BUF
Total/NA	Prep	3020A			171685	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172588	03/28/14 05:48	MTM2	TAL BUF
Total/NA	Prep	7470A			170777	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	7470A		1	170866	03/19/14 14:22	LRK	TAL BUF
Total/NA	Analysis	310.2		1	170878	03/19/14 15:32	NCH	TAL BUF
Total/NA	Prep	351.2			171324	03/22/14 00:31	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:11	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170702	03/18/14 21:50	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: 9-OS
Date Collected: 03/17/14 15:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170672	03/19/14 00:35	NQN	TAL BUF
Total/NA	Prep	3005A			170727	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171729	03/24/14 21:16	HTL	TAL BUF
Total/NA	Prep	3020A			171685	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172588	03/28/14 06:34	MTM2	TAL BUF
Total/NA	Prep	7470A			170777	03/19/14 10:05	JRK	TAL BUF

Client Sample ID: 9-OS
Date Collected: 03/17/14 15:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	170866	03/19/14 14:29	LRK	TAL BUF
Total/NA	Analysis	310.2		1	171112	03/20/14 07:37	NCH	TAL BUF
Total/NA	Prep	351.2			171324	03/22/14 00:31	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:20	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170702	03/18/14 21:50	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: 9-R
Date Collected: 03/17/14 16:10
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170672	03/19/14 00:56	NQN	TAL BUF
Total/NA	Prep	3005A			170727	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171729	03/24/14 21:27	HTL	TAL BUF
Total/NA	Prep	3020A			171685	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172588	03/28/14 06:39	MTM2	TAL BUF
Total/NA	Prep	7470A			170777	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	7470A		1	170866	03/19/14 14:31	LRK	TAL BUF
Total/NA	Analysis	310.2		5	170878	03/19/14 15:34	NCH	TAL BUF
Total/NA	Prep	351.2			172043	03/26/14 11:52	KJ1	TAL BUF
Total/NA	Analysis	351.2		1	172372	03/27/14 13:03	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170702	03/18/14 21:50	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: Duplicate
Date Collected: 03/17/14 15:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56183-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170672	03/19/14 01:17	NQN	TAL BUF
Total/NA	Prep	3005A			170727	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171729	03/24/14 21:30	HTL	TAL BUF
Total/NA	Prep	3020A			171685	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172588	03/28/14 06:45	MTM2	TAL BUF
Total/NA	Prep	7470A			170777	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	7470A		1	170866	03/19/14 14:36	LRK	TAL BUF
Total/NA	Analysis	310.2		1	170878	03/19/14 15:54	NCH	TAL BUF
Total/NA	Prep	351.2			170933	03/20/14 06:59	RMB	TAL BUF
Total/NA	Analysis	351.2		1	171274	03/21/14 11:34	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170702	03/18/14 21:50	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: TB

Lab Sample ID: 480-56183-6

Date Collected: 03/17/14 00:00

Matrix: Water

Date Received: 03/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170672	03/19/14 01:38	NQN	TAL BUF

Client Sample ID: 2-OS

Lab Sample ID: 480-56251-1

Date Collected: 03/18/14 13:15

Matrix: Ground Water

Date Received: 03/19/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170899	03/20/14 06:18	LCH	TAL BUF
Total/NA	Prep	3005A			170961	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171512	03/21/14 22:34	HTL	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 10:27	MTM2	TAL BUF
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	7470A		1	171233	03/21/14 09:15	JRK	TAL BUF
Total/NA	Analysis	310.2		10	171584	03/24/14 08:18	NCH	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:02	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170903	03/19/14 21:44	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Client Sample ID: 1-OS

Lab Sample ID: 480-56251-2

Date Collected: 03/18/14 16:05

Matrix: Ground Water

Date Received: 03/19/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170899	03/20/14 06:42	LCH	TAL BUF
Total/NA	Prep	3005A			170961	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171512	03/21/14 22:37	HTL	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 10:33	MTM2	TAL BUF
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	7470A		1	171233	03/21/14 09:16	JRK	TAL BUF
Total/NA	Analysis	310.2		2	171691	03/25/14 01:39	RMB	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:02	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170903	03/19/14 21:44	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Client Sample ID: 8-I
Date Collected: 03/18/14 10:25
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170899	03/20/14 07:06	LCH	TAL BUF
Total/NA	Prep	3005A			170961	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171512	03/21/14 22:40	HTL	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 10:56	MTM2	TAL BUF
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	7470A		1	171233	03/21/14 09:18	JRK	TAL BUF
Total/NA	Analysis	310.2		5	171308	03/21/14 10:41	NCH	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		10	171382	03/22/14 09:37	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170903	03/19/14 21:44	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Client Sample ID: 8-OS
Date Collected: 03/18/14 09:45
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170899	03/20/14 07:30	LCH	TAL BUF
Total/NA	Prep	3005A			170961	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	171512	03/21/14 22:43	HTL	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 11:02	MTM2	TAL BUF
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	7470A		1	171233	03/21/14 09:20	JRK	TAL BUF
Total/NA	Analysis	310.2		1	171308	03/21/14 10:30	NCH	TAL BUF
Total/NA	Prep	351.2			171722	03/25/14 08:32	LAW	TAL BUF
Total/NA	Analysis	351.2		1	171876	03/25/14 17:10	CLT	TAL BUF
Total/NA	Analysis	410.4		1	170903	03/19/14 21:44	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Client Sample ID: 8-R
Date Collected: 03/18/14 09:50
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170899	03/20/14 07:54	LCH	TAL BUF
Total/NA	Prep	3005A			170964	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	172899	03/29/14 02:41	LMH	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 11:08	MTM2	TAL BUF
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF

Client Sample ID: 8-R
Date Collected: 03/18/14 09:50
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-5
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	171233	03/21/14 09:22	JRK	TAL BUF
Total/NA	Analysis	310.2		10	171308	03/21/14 10:41	NCH	TAL BUF
Total/NA	Prep	351.2			173215	04/01/14 16:31	CLT	TAL BUF
Total/NA	Analysis	351.2		1	173430	04/02/14 12:56	NCH	TAL BUF
Total/NA	Analysis	410.4		1	172101	03/26/14 12:15	KJ1	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Client Sample ID: TB
Date Collected: 03/18/14 00:00
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	170899	03/20/14 08:17	LCH	TAL BUF

Client Sample ID: 3-OS/I
Date Collected: 03/18/14 11:00
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-7
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	171118	03/21/14 02:35	RAL	TAL BUF
Total/NA	Prep	3005A			170964	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	172274	03/27/14 04:13	HTL	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 11:13	MTM2	TAL BUF
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	7470A		1	171233	03/21/14 09:23	JRK	TAL BUF
Total/NA	Analysis	310.2		5	171308	03/21/14 09:54	NCH	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:11	NCH	TAL BUF
Total/NA	Analysis	410.4		1	171626	03/24/14 18:30	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Client Sample ID: 4-OS
Date Collected: 03/18/14 15:40
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	171118	03/21/14 02:59	RAL	TAL BUF
Total/NA	Prep	3005A			170964	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	172274	03/27/14 04:16	HTL	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 11:18	MTM2	TAL BUF

Client Sample ID: 4-OS
Date Collected: 03/18/14 15:40
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-8
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	7470A		1	171233	03/21/14 09:25	JRK	TAL BUF
Total/NA	Analysis	310.2		1	171584	03/24/14 07:58	NCH	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:11	NCH	TAL BUF
Total/NA	Analysis	410.4		1	171626	03/24/14 18:30	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Client Sample ID: 5-OS
Date Collected: 03/18/14 14:30
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56251-9
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	171118	03/21/14 03:23	RAL	TAL BUF
Total/NA	Prep	3005A			170964	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	6010C		1	172274	03/27/14 04:19	HTL	TAL BUF
Total/NA	Prep	3020A			171687	03/25/14 08:50	EHD	TAL BUF
Total/NA	Analysis	6020		1	172961	03/31/14 11:24	MTM2	TAL BUF
Total/NA	Prep	7470A			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	7470A		1	171233	03/21/14 09:27	JRK	TAL BUF
Total/NA	Analysis	310.2		1	172385	03/27/14 11:47	NCH	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 09:11	NCH	TAL BUF
Total/NA	Analysis	410.4		1	171626	03/24/14 18:30	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56183-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	State Program	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14 *
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15 *
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14 *
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14 *
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-14 *
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	04-01-14 *
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-15
West Virginia DEP	State Program	3	252	03-31-14 *
Wisconsin	State Program	5	998310390	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56183-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
6020	Metals (ICP/MS)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
410.4	COD	MCAWW	TAL BUF
SM 2340C	Hardness, Total	SM	TAL BUF

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56183-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-56183-1	7-OS	Ground Water	03/17/14 16:55	03/18/14 09:00
480-56183-2	9-I	Ground Water	03/17/14 15:25	03/18/14 09:00
480-56183-3	9-OS	Ground Water	03/17/14 15:40	03/18/14 09:00
480-56183-4	9-R	Ground Water	03/17/14 16:10	03/18/14 09:00
480-56183-5	Duplicate	Water	03/17/14 15:40	03/18/14 09:00
480-56183-6	TB	Water	03/17/14 00:00	03/18/14 09:00
480-56251-1	2-OS	Ground Water	03/18/14 13:15	03/19/14 09:00
480-56251-2	1-OS	Ground Water	03/18/14 16:05	03/19/14 09:00
480-56251-3	8-I	Ground Water	03/18/14 10:25	03/19/14 09:00
480-56251-4	8-OS	Ground Water	03/18/14 09:45	03/19/14 09:00
480-56251-5	8-R	Ground Water	03/18/14 09:50	03/19/14 09:00
480-56251-6	TB	Water	03/18/14 00:00	03/19/14 09:00
480-56251-7	3-OS/I	Ground Water	03/18/14 11:00	03/19/14 09:00
480-56251-8	4-OS	Ground Water	03/18/14 15:40	03/19/14 09:00
480-56251-9	5-OS	Ground Water	03/18/14 14:30	03/19/14 09:00

Detection Limit Exceptions Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56183-1

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Matrix	Analyte	Units	Client RL	Lab PQL
6010C	Ground Water	Arsenic	mg/L	0.010	0.015
6010C	Ground Water	Cadmium	mg/L	0.0010	0.002
6010C	Ground Water	Lead	mg/L	0.0050	0.01
6010C	Ground Water	Selenium	mg/L	0.015	0.025
6010C	Ground Water	Silver	mg/L	0.0030	0.006

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAm
THE LEADER IN ENVIR(

480-56183 Chain of Custody

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Sterling Env. Eng P.C.	Mark Millspaugh	3/17/14	247926
Address 24 Wade Rd	**Telephone Number (Area Code)/Fax Number** (518) 456-4900	**Lab Number**	**Page** 2 of 2
City Latham / **State** NY / **Zip Code** 12110	**Site Contact** C. Verhoef	**Lab Contact** Lisa Shaffer	**Analysis (Attach list if more space is needed)**
Project Name and Location (State) 20010	**Carrier/Waybill Number**		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	TKN, COD	Alkalinity	Hardness CaCO3	TAL Metals(1)	Site VOCs (2)	Special Instructions/ Conditions of Receipt
9-I	3/17/14	15:25		X			1	1	2	3								1) Reporting Limit for Antimony = 3.0ppb or less, Thallium = 0.5ppb or less
9-OS		15:40																
9-R		16:10																
7-OS		16:55																
DUP		15:40																
MS - (9-I)		15:30																
MSD - (9-I)		15:35																2) Site VOCs 1,1-Dichloroethane, Vinyl Chloride, Benzene and Chlorobenzene

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	3/17/14	1750	1. Received By TA BUFFALO	3/18/14	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

#1 3.0

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

PW-2 Drinking Water? Yes [X] No [X]

TestAme

THE LEADER IN ENVIRONM

480-56251 Chain of Custody

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Sterling Envi Eng. P.C.	Mark McSpaugh	3/18/14	227887
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
24 Wade Rd.	(518) 456-4900		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Latham / NY / 12110	C. Verhoef	Lisa Shaffer	
Project Name and Location (State)	**Carrier/Waybill Number**		
20010 Ramapo			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TKN, COD	Alkalinity	Hardness (CaCO3)	TAL Metals (1)	Site VOCs (2)	Total VOCs	Special Instructions/ Conditions of Receipt
2-OS	3/18/14	13:15		X			1	1	2	3			X	X	X	X	X		(1) Reporting Limit for
PW-2	|	8:40		|		|	|	|	|			X	X	X	X		X	Antimony = 3.0ppb or
8-I	|	10:25		|		|	|	|	|			|	|	|	X		less and
8-OS	|	9:45		|		|	|	|	|			|	|	|	|		Thallium = 0.5 ppb or
8-R	↓	9:50		↓			↓	↓	↓	↓			↓	↓	↓	↓	↓			less
TRIP Blank										2							X			(2) Site VOCs:
																				1,1-Dichloroethane,
																				Vinyl Chloride,
																				Benzene and
																				Chlorobenzene

Possible Hazard Identification
[X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal
[ ] Return To Client [ ] Disposal By Lab [X] Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
[ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Mark McSpaugh, Verhoef	3/18/14	16:45	1. Received By: TA BUFFALO	3/19/14	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

#1 2@3.9, 4.3

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Sterling Env. Eng. P.C.	Mark Millspaugh	3/18/14	247924
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
24 Wade Rd	(518) 456-4900		
City Latham	**State** NY	**Zip Code** 12110	**Site Contact** C. Verhoef	**Lab Contact** Lisa Shaffer
Project Name and Location (State) 20010 Ramapo	**Carrier/Waybill Number**	
Contract/Purchase Order/Quote No.		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TKN, COD	Alkalinity	Hardness CaCO3	TAL Metals (1)	Site VOCs (2)
1-OS	3/18/14	16:05		X			1	1	2	3			X	X	X	X	X
3-OS/I	↓	11:00		↓			↓	↓	↓	↓			↓	↓	↓	↓	↓
4-OS		15:40															
5-OS		14:30															

Special Instructions/ Conditions of Receipt

(1) Reporting Limit for Antimony = 3.0 ppb or less and Thallium = 0.5 ppb or less

(2) Site VOCs 1,1-Dichloroethane, Vinyl Chloride, Benzene, and Chlorobenzene

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard TAT

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Mark Millspaugh Verhoef	3/18/14	16:45	TA BUFFALO	3/19/14	0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

1 2 3, 4, 5

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Sterling Environmental Engineering PC

Job Number: 480-56183-1

Login Number: 56183
List Number: 1
Creator: Stau, Brandon M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	sterling
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Sterling Environmental Engineering PC

Job Number: 480-56183-1

Login Number: 56251
List Number: 1
Creator: Stau, Brandon M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	STERLING
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-56184-1
Client Project/Site: Ramapo Landfill
Sampling Event: Private Wells

For:
Sterling Environmental Engineering PC
24 Wade Road
Latham, New York 12110

Attn: Charlotte Verhoef

Lisa Shaffer

Authorized for release by:
4/3/2014 8:00:42 AM

Lisa Shaffer, Project Manager II
(716)504-9816
lisa.shaffer@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-56184-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-56184-1

Comments
No additional comments.

Receipt
The samples were received on 3/18/2014 9:00 AM and 3/19/2014 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.8° C, 3.9° C and 4.3° C.

GC/MS VOA
Method(s) 524.2: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 170767 recovered outside control limits for one or more of the following analytes: Trichlorofluoromethane, Bromomethane and Carbon tetrachloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No other analytical or quality issues were noted.

Metals
Method(s) 200.7 Rev 4.4: The Continuing Calibration Verification (CCV 480-171196/12) recovered above the upper control limit for total chormium. The sample associated with this CCV was non-detect for the affected analyte; therefore, the data has been reported. The following sample is impacted: (MB 480-170729/1-A).

Method(s) 200.7 Rev 4.4: The Method Blank for batch 480-170729 contained total sodium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples PW-1 (480-56184-1), SVWC-93 (480-56184-2), SVWC-94 (480-56184-3), SVWC-95 (480-56184-4), SVWC-96 (480-56184-5) was not performed.

No other analytical or quality issues were noted.

General Chemistry
Method(s) 410.4: The method blank for batch 170702 was above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.PW-1 (480-56184-1), SVWC-94 (480-56184-3)

Method(s) 410.4: The laboratory control sample (LCS) for batch 171039 recovered outside control limits for the following analytes: chemical oxygen demand. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.PW-2 (480-56254-1)

Method(s) 410.4: The method blank for batch 171039 contained chemical oxygen demand above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.SVWC-93 (480-56184-2), SVWC-96 (480-56184-5)

No other analytical or quality issues were noted.

Detection Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56184-1

Client Sample ID: PW-1 — Lab Sample ID: 480-56184-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.19	J	0.50	0.067	ug/L	1		524.2	Total/NA
Barium	0.0084		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	8.6		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.16		0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.034	J	0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2.3		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.0016	J	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.3		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	25.6	B	1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.077		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity, Total	24.0		10.0	4.0	mg/L	1		310.2	Total/NA
Chemical Oxygen Demand	7.2	J B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	40.0		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: SVWC-93 — Lab Sample ID: 480-56184-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	28.5		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0079	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	7.5		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.8		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	54.1	B	1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0046	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity, Total	43.4		10.0	4.0	mg/L	1		310.2	Total/NA
Chemical Oxygen Demand	10.3	B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	100		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: SVWC-94 — Lab Sample ID: 480-56184-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.017		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	29.7		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0080	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	8.0		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.8		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	50.1	B	1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.0061	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity, Total	41.5		10.0	4.0	mg/L	1		310.2	Total/NA
Chemical Oxygen Demand	6.6	J B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	100		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: SVWC-95 — Lab Sample ID: 480-56184-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.015		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	30.1		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.011		0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	8.2		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.13		0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SVWC-95 (Continued)

Lab Sample ID: 480-56184-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	1.9		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	48.6	B	1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.021		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity, Total	60.0		10.0	4.0	mg/L	1		310.2	Total/NA
Hardness as calcium carbonate	104		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: SVWC-96

Lab Sample ID: 480-56184-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.012		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	27.3		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0081	J	0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	7.3		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.0067	J	0.010	0.0013	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.7		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	56.1	B	1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.025		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity, Total	51.2		10.0	4.0	mg/L	1		310.2	Total/NA
Chemical Oxygen Demand	9.7	J B	10.0	5.0	mg/L	1		410.4	Total/NA
Hardness as calcium carbonate	100		4.0	1.1	mg/L	1		SM 2340C	Total/NA

Client Sample ID: TB

Lab Sample ID: 480-56184-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.1	J	2.5	0.54	ug/L	1		524.2	Total/NA

Client Sample ID: PW-2

Lab Sample ID: 480-56254-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0038		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	20.5		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.063		0.010	0.0016	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.11		0.050	0.019	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	2.5		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.041		0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.2		0.50	0.10	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	7.2		1.0	0.32	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.038		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity, Total	44.0		10.0	4.0	mg/L	1		310.2	Total/NA
Hardness as calcium carbonate	80.0		4.0	1.1	mg/L	1		SM 2340C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: PW-1
Date Collected: 03/17/14 14:20
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-1
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/19/14 14:13	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/19/14 14:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/19/14 14:13	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/19/14 14:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/19/14 14:13	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/19/14 14:13	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/19/14 14:13	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/19/14 14:13	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/19/14 14:13	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/19/14 14:13	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 14:13	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/19/14 14:13	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/19/14 14:13	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/19/14 14:13	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/19/14 14:13	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/19/14 14:13	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/19/14 14:13	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/19/14 14:13	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 14:13	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/19/14 14:13	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 14:13	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/19/14 14:13	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/19/14 14:13	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 14:13	1
2-Hexanone	ND		2.5	0.23	ug/L			03/19/14 14:13	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 14:13	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/19/14 14:13	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/19/14 14:13	1
Acetone	ND		2.5	0.54	ug/L			03/19/14 14:13	1
Acrylonitrile	ND		10	0.23	ug/L			03/19/14 14:13	1
Allyl chloride	ND		0.50	0.091	ug/L			03/19/14 14:13	1
Benzene	ND		0.50	0.13	ug/L			03/19/14 14:13	1
Bromobenzene	ND		0.50	0.13	ug/L			03/19/14 14:13	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/19/14 14:13	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/19/14 14:13	1
Bromoform	ND		0.50	0.13	ug/L			03/19/14 14:13	1
Bromomethane	ND	*	0.50	0.051	ug/L			03/19/14 14:13	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/19/14 14:13	1
Carbon tetrachloride	ND	*	0.50	0.053	ug/L			03/19/14 14:13	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/19/14 14:13	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/19/14 14:13	1
Chloroethane	ND		0.50	0.070	ug/L			03/19/14 14:13	1
Chloroform	ND		0.50	0.14	ug/L			03/19/14 14:13	1
Chloromethane	ND		0.50	0.063	ug/L			03/19/14 14:13	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/19/14 14:13	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/19/14 14:13	1
Dibromomethane	ND		0.50	0.17	ug/L			03/19/14 14:13	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/19/14 14:13	1
Ethyl ether	ND		0.50	0.12	ug/L			03/19/14 14:13	1

Client Sample ID: PW-1
Date Collected: 03/17/14 14:20
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-1
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.50	0.11	ug/L			03/19/14 14:13	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/19/14 14:13	1
Iodomethane	ND		0.50	0.15	ug/L			03/19/14 14:13	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/19/14 14:13	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/19/14 14:13	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/19/14 14:13	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/19/14 14:13	1
Naphthalene	ND		0.50	0.060	ug/L			03/19/14 14:13	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/19/14 14:13	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/19/14 14:13	1
o-Xylene	ND		0.50	0.044	ug/L			03/19/14 14:13	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/19/14 14:13	1
Styrene	ND		0.50	0.044	ug/L			03/19/14 14:13	1
t-Butanol	ND		10	2.5	ug/L			03/19/14 14:13	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/19/14 14:13	1
Tetrachloroethene	**0.19**	**J**	0.50	0.067	ug/L			03/19/14 14:13	1
Toluene	ND		0.50	0.10	ug/L			03/19/14 14:13	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/19/14 14:13	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/19/14 14:13	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/19/14 14:13	1
Trichloroethene	ND		0.50	0.060	ug/L			03/19/14 14:13	1
Trichlorofluoromethane	ND	*	0.50	0.044	ug/L			03/19/14 14:13	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/19/14 14:13	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/19/14 14:13	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/19/14 14:13	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/19/14 14:13	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/19/14 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/19/14 14:13*	*1*
1,2-Dichlorobenzene-d4	*96*		*80 - 120*		*03/19/14 14:13*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/20/14 23:36	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/20/14 23:36	1
Barium	**0.0084**		0.0020	0.00070	mg/L		03/19/14 09:45	03/20/14 23:36	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/20/14 23:36	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/20/14 23:36	1
Calcium	**8.6**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:36	1
Chromium	ND		0.0040	0.0010	mg/L		03/19/14 09:45	03/20/14 23:36	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/20/14 23:36	1
Copper	**0.16**		0.010	0.0016	mg/L		03/19/14 09:45	03/20/14 23:36	1
Iron	**0.034**	**J**	0.050	0.019	mg/L		03/19/14 09:45	03/20/14 23:36	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/20/14 23:36	1
Magnesium	**2.3**		0.20	0.043	mg/L		03/19/14 09:45	03/20/14 23:36	1
Manganese	**0.0016**	**J**	0.0030	0.00040	mg/L		03/19/14 09:45	03/20/14 23:36	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/20/14 23:36	1
Potassium	**1.3**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:36	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/20/14 23:36	1

Client Sample ID: PW-1
Date Collected: 03/17/14 14:20
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-1
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/20/14 23:36	1
Sodium	**25.6**	**B**	1.0	0.32	mg/L		03/19/14 09:45	03/20/14 23:36	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/20/14 23:36	1
Zinc	**0.077**		0.010	0.0015	mg/L		03/19/14 09:45	03/20/14 23:36	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/26/14 11:25	03/27/14 23:26	1
Thallium	ND		0.50	0.0080	ug/L		03/26/14 11:25	03/27/14 23:26	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**24.0**		10.0	4.0	mg/L			03/19/14 15:32	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/25/14 08:32	03/25/14 17:03	1
Chemical Oxygen Demand	**7.2**	**J B**	10.0	5.0	mg/L			03/18/14 21:50	1
Hardness as calcium carbonate	**40.0**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: SVWC-93
Date Collected: 03/17/14 10:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-2
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/19/14 14:39	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/19/14 14:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/19/14 14:39	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/19/14 14:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/19/14 14:39	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/19/14 14:39	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/19/14 14:39	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/19/14 14:39	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/19/14 14:39	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/19/14 14:39	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 14:39	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/19/14 14:39	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/19/14 14:39	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/19/14 14:39	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/19/14 14:39	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/19/14 14:39	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/19/14 14:39	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/19/14 14:39	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 14:39	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/19/14 14:39	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 14:39	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/19/14 14:39	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/19/14 14:39	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 14:39	1
2-Hexanone	ND		2.5	0.23	ug/L			03/19/14 14:39	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 14:39	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/19/14 14:39	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/19/14 14:39	1
Acetone	ND		2.5	0.54	ug/L			03/19/14 14:39	1
Acrylonitrile	ND		10	0.23	ug/L			03/19/14 14:39	1
Allyl chloride	ND		0.50	0.091	ug/L			03/19/14 14:39	1
Benzene	ND		0.50	0.13	ug/L			03/19/14 14:39	1
Bromobenzene	ND		0.50	0.13	ug/L			03/19/14 14:39	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/19/14 14:39	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/19/14 14:39	1
Bromoform	ND		0.50	0.13	ug/L			03/19/14 14:39	1
Bromomethane	ND	*	0.50	0.051	ug/L			03/19/14 14:39	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/19/14 14:39	1
Carbon tetrachloride	ND	*	0.50	0.053	ug/L			03/19/14 14:39	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/19/14 14:39	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/19/14 14:39	1
Chloroethane	ND		0.50	0.070	ug/L			03/19/14 14:39	1
Chloroform	ND		0.50	0.14	ug/L			03/19/14 14:39	1
Chloromethane	ND		0.50	0.063	ug/L			03/19/14 14:39	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/19/14 14:39	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/19/14 14:39	1
Dibromomethane	ND		0.50	0.17	ug/L			03/19/14 14:39	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/19/14 14:39	1
Ethyl ether	ND		0.50	0.12	ug/L			03/19/14 14:39	1

Client Sample ID: SVWC-93
Date Collected: 03/17/14 10:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-2
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.50	0.11	ug/L			03/19/14 14:39	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/19/14 14:39	1
Iodomethane	ND		0.50	0.15	ug/L			03/19/14 14:39	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/19/14 14:39	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/19/14 14:39	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/19/14 14:39	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/19/14 14:39	1
Naphthalene	ND		0.50	0.060	ug/L			03/19/14 14:39	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/19/14 14:39	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/19/14 14:39	1
o-Xylene	ND		0.50	0.044	ug/L			03/19/14 14:39	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/19/14 14:39	1
Styrene	ND		0.50	0.044	ug/L			03/19/14 14:39	1
t-Butanol	ND		10	2.5	ug/L			03/19/14 14:39	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/19/14 14:39	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/19/14 14:39	1
Toluene	ND		0.50	0.10	ug/L			03/19/14 14:39	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/19/14 14:39	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/19/14 14:39	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/19/14 14:39	1
Trichloroethene	ND		0.50	0.060	ug/L			03/19/14 14:39	1
Trichlorofluoromethane	ND	*	0.50	0.044	ug/L			03/19/14 14:39	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/19/14 14:39	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/19/14 14:39	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/19/14 14:39	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/19/14 14:39	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/19/14 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/19/14 14:39*	*1*
1,2-Dichlorobenzene-d4	*96*		*80 - 120*		*03/19/14 14:39*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/20/14 23:38	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/20/14 23:38	1
Barium	**0.012**		0.0020	0.00070	mg/L		03/19/14 09:45	03/20/14 23:38	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/20/14 23:38	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/20/14 23:38	1
Calcium	**28.5**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:38	1
Chromium	ND		0.0040	0.0010	mg/L		03/19/14 09:45	03/20/14 23:38	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/20/14 23:38	1
Copper	**0.0079**	J	0.010	0.0016	mg/L		03/19/14 09:45	03/20/14 23:38	1
Iron	ND		0.050	0.019	mg/L		03/19/14 09:45	03/20/14 23:38	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/20/14 23:38	1
Magnesium	**7.5**		0.20	0.043	mg/L		03/19/14 09:45	03/20/14 23:38	1
Manganese	ND		0.0030	0.00040	mg/L		03/19/14 09:45	03/20/14 23:38	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/20/14 23:38	1
Potassium	**1.8**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:38	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/20/14 23:38	1

Client Sample ID: SVWC-93
Date Collected: 03/17/14 10:40
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-2
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/20/14 23:38	1
Sodium	**54.1**	**B**	1.0	0.32	mg/L		03/19/14 09:45	03/20/14 23:38	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/20/14 23:38	1
Zinc	**0.0046**	**J**	0.010	0.0015	mg/L		03/19/14 09:45	03/20/14 23:38	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/26/14 11:25	03/27/14 23:31	1
Thallium	ND		0.50	0.0080	ug/L		03/26/14 11:25	03/27/14 23:31	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**43.4**		10.0	4.0	mg/L			03/19/14 15:32	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/25/14 08:32	03/25/14 17:03	1
Chemical Oxygen Demand	**10.3**	**B**	10.0	5.0	mg/L			03/20/14 08:42	1
Hardness as calcium carbonate	**100**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: SVWC-94
Date Collected: 03/17/14 11:05
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-3
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/19/14 15:04	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/19/14 15:04	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/19/14 15:04	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/19/14 15:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/19/14 15:04	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/19/14 15:04	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/19/14 15:04	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/19/14 15:04	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/19/14 15:04	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/19/14 15:04	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:04	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/19/14 15:04	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/19/14 15:04	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/19/14 15:04	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/19/14 15:04	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/19/14 15:04	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/19/14 15:04	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/19/14 15:04	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:04	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/19/14 15:04	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:04	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/19/14 15:04	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/19/14 15:04	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 15:04	1
2-Hexanone	ND		2.5	0.23	ug/L			03/19/14 15:04	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 15:04	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/19/14 15:04	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/19/14 15:04	1
Acetone	ND		2.5	0.54	ug/L			03/19/14 15:04	1
Acrylonitrile	ND		10	0.23	ug/L			03/19/14 15:04	1
Allyl chloride	ND		0.50	0.091	ug/L			03/19/14 15:04	1
Benzene	ND		0.50	0.13	ug/L			03/19/14 15:04	1
Bromobenzene	ND		0.50	0.13	ug/L			03/19/14 15:04	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/19/14 15:04	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/19/14 15:04	1
Bromoform	ND		0.50	0.13	ug/L			03/19/14 15:04	1
Bromomethane	ND	*	0.50	0.051	ug/L			03/19/14 15:04	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/19/14 15:04	1
Carbon tetrachloride	ND	*	0.50	0.053	ug/L			03/19/14 15:04	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/19/14 15:04	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/19/14 15:04	1
Chloroethane	ND		0.50	0.070	ug/L			03/19/14 15:04	1
Chloroform	ND		0.50	0.14	ug/L			03/19/14 15:04	1
Chloromethane	ND		0.50	0.063	ug/L			03/19/14 15:04	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/19/14 15:04	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/19/14 15:04	1
Dibromomethane	ND		0.50	0.17	ug/L			03/19/14 15:04	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/19/14 15:04	1
Ethyl ether	ND		0.50	0.12	ug/L			03/19/14 15:04	1

Client Sample ID: SVWC-94
Date Collected: 03/17/14 11:05
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-3
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.50	0.11	ug/L			03/19/14 15:04	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/19/14 15:04	1
Iodomethane	ND		0.50	0.15	ug/L			03/19/14 15:04	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/19/14 15:04	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/19/14 15:04	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/19/14 15:04	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/19/14 15:04	1
Naphthalene	ND		0.50	0.060	ug/L			03/19/14 15:04	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/19/14 15:04	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/19/14 15:04	1
o-Xylene	ND		0.50	0.044	ug/L			03/19/14 15:04	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/19/14 15:04	1
Styrene	ND		0.50	0.044	ug/L			03/19/14 15:04	1
t-Butanol	ND		10	2.5	ug/L			03/19/14 15:04	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/19/14 15:04	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/19/14 15:04	1
Toluene	ND		0.50	0.10	ug/L			03/19/14 15:04	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/19/14 15:04	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/19/14 15:04	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/19/14 15:04	1
Trichloroethene	ND		0.50	0.060	ug/L			03/19/14 15:04	1
Trichlorofluoromethane	ND	*	0.50	0.044	ug/L			03/19/14 15:04	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/19/14 15:04	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/19/14 15:04	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/19/14 15:04	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/19/14 15:04	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/19/14 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*03/19/14 15:04*	*1*
1,2-Dichlorobenzene-d4	*97*		*80 - 120*		*03/19/14 15:04*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/20/14 23:41	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/20/14 23:41	1
Barium	**0.017**		0.0020	0.00070	mg/L		03/19/14 09:45	03/20/14 23:41	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/20/14 23:41	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/20/14 23:41	1
Calcium	**29.7**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:41	1
Chromium	ND		0.0040	0.0010	mg/L		03/19/14 09:45	03/20/14 23:41	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/20/14 23:41	1
Copper	**0.0080**	J	0.010	0.0016	mg/L		03/19/14 09:45	03/20/14 23:41	1
Iron	ND		0.050	0.019	mg/L		03/19/14 09:45	03/20/14 23:41	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/20/14 23:41	1
Magnesium	**8.0**		0.20	0.043	mg/L		03/19/14 09:45	03/20/14 23:41	1
Manganese	ND		0.0030	0.00040	mg/L		03/19/14 09:45	03/20/14 23:41	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/20/14 23:41	1
Potassium	**1.8**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:41	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/20/14 23:41	1

Client Sample ID: SVWC-94
Date Collected: 03/17/14 11:05
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-3
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/20/14 23:41	1
Sodium	**50.1**	**B**	1.0	0.32	mg/L		03/19/14 09:45	03/20/14 23:41	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/20/14 23:41	1
Zinc	**0.0061**	**J**	0.010	0.0015	mg/L		03/19/14 09:45	03/20/14 23:41	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/26/14 11:25	03/27/14 23:37	1
Thallium	ND		0.50	0.0080	ug/L		03/26/14 11:25	03/27/14 23:37	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**41.5**		10.0	4.0	mg/L			03/19/14 15:32	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 10:33	1
Chemical Oxygen Demand	**6.6**	**J B**	10.0	5.0	mg/L			03/18/14 21:50	1
Hardness as calcium carbonate	**100**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: SVWC-95
Date Collected: 03/17/14 11:30
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-4
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/19/14 15:29	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/19/14 15:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/19/14 15:29	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/19/14 15:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/19/14 15:29	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/19/14 15:29	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/19/14 15:29	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/19/14 15:29	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/19/14 15:29	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/19/14 15:29	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:29	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/19/14 15:29	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/19/14 15:29	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/19/14 15:29	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/19/14 15:29	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/19/14 15:29	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/19/14 15:29	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/19/14 15:29	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:29	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/19/14 15:29	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:29	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/19/14 15:29	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/19/14 15:29	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 15:29	1
2-Hexanone	ND		2.5	0.23	ug/L			03/19/14 15:29	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 15:29	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/19/14 15:29	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/19/14 15:29	1
Acetone	ND		2.5	0.54	ug/L			03/19/14 15:29	1
Acrylonitrile	ND		10	0.23	ug/L			03/19/14 15:29	1
Allyl chloride	ND		0.50	0.091	ug/L			03/19/14 15:29	1
Benzene	ND		0.50	0.13	ug/L			03/19/14 15:29	1
Bromobenzene	ND		0.50	0.13	ug/L			03/19/14 15:29	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/19/14 15:29	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/19/14 15:29	1
Bromoform	ND		0.50	0.13	ug/L			03/19/14 15:29	1
Bromomethane	ND	*	0.50	0.051	ug/L			03/19/14 15:29	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/19/14 15:29	1
Carbon tetrachloride	ND	*	0.50	0.053	ug/L			03/19/14 15:29	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/19/14 15:29	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/19/14 15:29	1
Chloroethane	ND		0.50	0.070	ug/L			03/19/14 15:29	1
Chloroform	ND		0.50	0.14	ug/L			03/19/14 15:29	1
Chloromethane	ND		0.50	0.063	ug/L			03/19/14 15:29	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/19/14 15:29	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/19/14 15:29	1
Dibromomethane	ND		0.50	0.17	ug/L			03/19/14 15:29	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/19/14 15:29	1
Ethyl ether	ND		0.50	0.12	ug/L			03/19/14 15:29	1

Client Sample ID: SVWC-95
Date Collected: 03/17/14 11:30
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-4
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.50	0.11	ug/L			03/19/14 15:29	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/19/14 15:29	1
Iodomethane	ND		0.50	0.15	ug/L			03/19/14 15:29	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/19/14 15:29	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/19/14 15:29	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/19/14 15:29	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/19/14 15:29	1
Naphthalene	ND		0.50	0.060	ug/L			03/19/14 15:29	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/19/14 15:29	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/19/14 15:29	1
o-Xylene	ND		0.50	0.044	ug/L			03/19/14 15:29	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/19/14 15:29	1
Styrene	ND		0.50	0.044	ug/L			03/19/14 15:29	1
t-Butanol	ND		10	2.5	ug/L			03/19/14 15:29	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/19/14 15:29	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/19/14 15:29	1
Toluene	ND		0.50	0.10	ug/L			03/19/14 15:29	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/19/14 15:29	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/19/14 15:29	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/19/14 15:29	1
Trichloroethene	ND		0.50	0.060	ug/L			03/19/14 15:29	1
Trichlorofluoromethane	ND	*	0.50	0.044	ug/L			03/19/14 15:29	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/19/14 15:29	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/19/14 15:29	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/19/14 15:29	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/19/14 15:29	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/19/14 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/19/14 15:29*	*1*
1,2-Dichlorobenzene-d4	*98*		*80 - 120*		*03/19/14 15:29*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/20/14 23:44	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/20/14 23:44	1
Barium	**0.015**		0.0020	0.00070	mg/L		03/19/14 09:45	03/20/14 23:44	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/20/14 23:44	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/20/14 23:44	1
Calcium	**30.1**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:44	1
Chromium	ND		0.0040	0.0010	mg/L		03/19/14 09:45	03/20/14 23:44	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/20/14 23:44	1
Copper	**0.011**		0.010	0.0016	mg/L		03/19/14 09:45	03/20/14 23:44	1
Iron	ND		0.050	0.019	mg/L		03/19/14 09:45	03/20/14 23:44	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/20/14 23:44	1
Magnesium	**8.2**		0.20	0.043	mg/L		03/19/14 09:45	03/20/14 23:44	1
Manganese	**0.13**		0.0030	0.00040	mg/L		03/19/14 09:45	03/20/14 23:44	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/20/14 23:44	1
Potassium	**1.9**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:44	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/20/14 23:44	1

Client Sample ID: SVWC-95
Date Collected: 03/17/14 11:30
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-4
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/20/14 23:44	1
Sodium	**48.6**	**B**	1.0	0.32	mg/L		03/19/14 09:45	03/20/14 23:44	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/20/14 23:44	1
Zinc	**0.021**		0.010	0.0015	mg/L		03/19/14 09:45	03/20/14 23:44	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/26/14 11:25	03/27/14 23:42	1
Thallium	ND		0.50	0.0080	ug/L		03/26/14 11:25	03/27/14 23:42	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**60.0**		10.0	4.0	mg/L			03/19/14 15:32	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/26/14 11:52	03/27/14 12:49	1
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/20/14 08:42	1
Hardness as calcium carbonate	**104**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: SVWC-96
Date Collected: 03/17/14 11:50
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-5
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/19/14 15:55	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/19/14 15:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/19/14 15:55	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/19/14 15:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/19/14 15:55	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/19/14 15:55	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/19/14 15:55	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/19/14 15:55	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/19/14 15:55	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/19/14 15:55	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:55	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/19/14 15:55	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/19/14 15:55	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/19/14 15:55	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/19/14 15:55	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/19/14 15:55	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/19/14 15:55	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/19/14 15:55	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:55	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/19/14 15:55	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 15:55	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/19/14 15:55	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/19/14 15:55	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 15:55	1
2-Hexanone	ND		2.5	0.23	ug/L			03/19/14 15:55	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 15:55	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/19/14 15:55	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/19/14 15:55	1
Acetone	ND		2.5	0.54	ug/L			03/19/14 15:55	1
Acrylonitrile	ND		10	0.23	ug/L			03/19/14 15:55	1
Allyl chloride	ND		0.50	0.091	ug/L			03/19/14 15:55	1
Benzene	ND		0.50	0.13	ug/L			03/19/14 15:55	1
Bromobenzene	ND		0.50	0.13	ug/L			03/19/14 15:55	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/19/14 15:55	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/19/14 15:55	1
Bromoform	ND		0.50	0.13	ug/L			03/19/14 15:55	1
Bromomethane	ND	*	0.50	0.051	ug/L			03/19/14 15:55	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/19/14 15:55	1
Carbon tetrachloride	ND	*	0.50	0.053	ug/L			03/19/14 15:55	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/19/14 15:55	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/19/14 15:55	1
Chloroethane	ND		0.50	0.070	ug/L			03/19/14 15:55	1
Chloroform	ND		0.50	0.14	ug/L			03/19/14 15:55	1
Chloromethane	ND		0.50	0.063	ug/L			03/19/14 15:55	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/19/14 15:55	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/19/14 15:55	1
Dibromomethane	ND		0.50	0.17	ug/L			03/19/14 15:55	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/19/14 15:55	1
Ethyl ether	ND		0.50	0.12	ug/L			03/19/14 15:55	1

Client Sample ID: SVWC-96
Date Collected: 03/17/14 11:50
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-5
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.50	0.11	ug/L			03/19/14 15:55	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/19/14 15:55	1
Iodomethane	ND		0.50	0.15	ug/L			03/19/14 15:55	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/19/14 15:55	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/19/14 15:55	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/19/14 15:55	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/19/14 15:55	1
Naphthalene	ND		0.50	0.060	ug/L			03/19/14 15:55	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/19/14 15:55	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/19/14 15:55	1
o-Xylene	ND		0.50	0.044	ug/L			03/19/14 15:55	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/19/14 15:55	1
Styrene	ND		0.50	0.044	ug/L			03/19/14 15:55	1
t-Butanol	ND		10	2.5	ug/L			03/19/14 15:55	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/19/14 15:55	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/19/14 15:55	1
Toluene	ND		0.50	0.10	ug/L			03/19/14 15:55	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/19/14 15:55	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/19/14 15:55	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/19/14 15:55	1
Trichloroethene	ND		0.50	0.060	ug/L			03/19/14 15:55	1
Trichlorofluoromethane	ND	*	0.50	0.044	ug/L			03/19/14 15:55	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/19/14 15:55	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/19/14 15:55	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/19/14 15:55	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/19/14 15:55	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/19/14 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*03/19/14 15:55*	*1*
1,2-Dichlorobenzene-d4	*99*		*80 - 120*		*03/19/14 15:55*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/20/14 23:47	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/20/14 23:47	1
Barium	**0.012**		0.0020	0.00070	mg/L		03/19/14 09:45	03/20/14 23:47	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/20/14 23:47	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/20/14 23:47	1
Calcium	**27.3**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:47	1
Chromium	ND		0.0040	0.0010	mg/L		03/19/14 09:45	03/20/14 23:47	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/20/14 23:47	1
Copper	**0.0081**	J	0.010	0.0016	mg/L		03/19/14 09:45	03/20/14 23:47	1
Iron	ND		0.050	0.019	mg/L		03/19/14 09:45	03/20/14 23:47	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/20/14 23:47	1
Magnesium	**7.3**		0.20	0.043	mg/L		03/19/14 09:45	03/20/14 23:47	1
Manganese	ND		0.0030	0.00040	mg/L		03/19/14 09:45	03/20/14 23:47	1
Nickel	**0.0067**	J	0.010	0.0013	mg/L		03/19/14 09:45	03/20/14 23:47	1
Potassium	**1.7**		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 23:47	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/20/14 23:47	1

Client Sample ID: SVWC-96
Date Collected: 03/17/14 11:50
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-5
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/20/14 23:47	1
Sodium	**56.1**	**B**	1.0	0.32	mg/L		03/19/14 09:45	03/20/14 23:47	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/20/14 23:47	1
Zinc	**0.025**		0.010	0.0015	mg/L		03/19/14 09:45	03/20/14 23:47	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/26/14 11:25	03/27/14 23:48	1
Thallium	ND		0.50	0.0080	ug/L		03/26/14 11:25	03/27/14 23:48	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 14:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**51.2**		10.0	4.0	mg/L			03/19/14 15:32	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/25/14 08:32	03/25/14 17:10	1
Chemical Oxygen Demand	**9.7**	**J B**	10.0	5.0	mg/L			03/20/14 08:42	1
Hardness as calcium carbonate	**100**		4.0	1.1	mg/L			03/19/14 07:50	1

Client Sample ID: TB
Date Collected: 03/17/14 00:00
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-6
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/19/14 16:19	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/19/14 16:19	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/19/14 16:19	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/19/14 16:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/19/14 16:19	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/19/14 16:19	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/19/14 16:19	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/19/14 16:19	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/19/14 16:19	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/19/14 16:19	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 16:19	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/19/14 16:19	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/19/14 16:19	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/19/14 16:19	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/19/14 16:19	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/19/14 16:19	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/19/14 16:19	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/19/14 16:19	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 16:19	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/19/14 16:19	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 16:19	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/19/14 16:19	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/19/14 16:19	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 16:19	1
2-Hexanone	ND		2.5	0.23	ug/L			03/19/14 16:19	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 16:19	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/19/14 16:19	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/19/14 16:19	1
Acetone	**1.1**	**J**	2.5	0.54	ug/L			03/19/14 16:19	1
Acrylonitrile	ND		10	0.23	ug/L			03/19/14 16:19	1
Allyl chloride	ND		0.50	0.091	ug/L			03/19/14 16:19	1
Benzene	ND		0.50	0.13	ug/L			03/19/14 16:19	1
Bromobenzene	ND		0.50	0.13	ug/L			03/19/14 16:19	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/19/14 16:19	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/19/14 16:19	1
Bromoform	ND		0.50	0.13	ug/L			03/19/14 16:19	1
Bromomethane	ND	*	0.50	0.051	ug/L			03/19/14 16:19	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/19/14 16:19	1
Carbon tetrachloride	ND	*	0.50	0.053	ug/L			03/19/14 16:19	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/19/14 16:19	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/19/14 16:19	1
Chloroethane	ND		0.50	0.070	ug/L			03/19/14 16:19	1
Chloroform	ND		0.50	0.14	ug/L			03/19/14 16:19	1
Chloromethane	ND		0.50	0.063	ug/L			03/19/14 16:19	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/19/14 16:19	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/19/14 16:19	1
Dibromomethane	ND		0.50	0.17	ug/L			03/19/14 16:19	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/19/14 16:19	1
Ethyl ether	ND		0.50	0.12	ug/L			03/19/14 16:19	1

Client Sample ID: TB
Date Collected: 03/17/14 00:00
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-6
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.50	0.11	ug/L			03/19/14 16:19	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/19/14 16:19	1
Iodomethane	ND		0.50	0.15	ug/L			03/19/14 16:19	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/19/14 16:19	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/19/14 16:19	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/19/14 16:19	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/19/14 16:19	1
Naphthalene	ND		0.50	0.060	ug/L			03/19/14 16:19	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/19/14 16:19	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/19/14 16:19	1
o-Xylene	ND		0.50	0.044	ug/L			03/19/14 16:19	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/19/14 16:19	1
Styrene	ND		0.50	0.044	ug/L			03/19/14 16:19	1
t-Butanol	ND		10	2.5	ug/L			03/19/14 16:19	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/19/14 16:19	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/19/14 16:19	1
Toluene	ND		0.50	0.10	ug/L			03/19/14 16:19	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/19/14 16:19	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/19/14 16:19	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/19/14 16:19	1
Trichloroethene	ND		0.50	0.060	ug/L			03/19/14 16:19	1
Trichlorofluoromethane	ND	*	0.50	0.044	ug/L			03/19/14 16:19	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/19/14 16:19	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/19/14 16:19	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/19/14 16:19	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/19/14 16:19	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/19/14 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*03/19/14 16:19*	*1*
1,2-Dichlorobenzene-d4	*97*		*80 - 120*		*03/19/14 16:19*	*1*

Client Sample ID: PW-2
Date Collected: 03/18/14 08:40
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56254-1
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/20/14 12:45	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/20/14 12:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/20/14 12:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/20/14 12:45	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/20/14 12:45	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/20/14 12:45	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/20/14 12:45	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/20/14 12:45	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/20/14 12:45	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/20/14 12:45	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/20/14 12:45	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/20/14 12:45	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/20/14 12:45	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/20/14 12:45	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/20/14 12:45	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/20/14 12:45	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/20/14 12:45	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/20/14 12:45	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/20/14 12:45	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/20/14 12:45	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/20/14 12:45	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/20/14 12:45	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/20/14 12:45	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/20/14 12:45	1
2-Hexanone	ND		2.5	0.23	ug/L			03/20/14 12:45	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/20/14 12:45	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/20/14 12:45	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/20/14 12:45	1
Acetone	ND		2.5	0.54	ug/L			03/20/14 12:45	1
Acrylonitrile	ND		10	0.23	ug/L			03/20/14 12:45	1
Allyl chloride	ND		0.50	0.091	ug/L			03/20/14 12:45	1
Benzene	ND		0.50	0.13	ug/L			03/20/14 12:45	1
Bromobenzene	ND		0.50	0.13	ug/L			03/20/14 12:45	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/20/14 12:45	1
Bromoform	ND		0.50	0.13	ug/L			03/20/14 12:45	1
Bromomethane	ND		0.50	0.051	ug/L			03/20/14 12:45	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/20/14 12:45	1
Carbon tetrachloride	ND		0.50	0.053	ug/L			03/20/14 12:45	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/20/14 12:45	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/20/14 12:45	1
Chloroethane	ND		0.50	0.070	ug/L			03/20/14 12:45	1
Chloroform	ND		0.50	0.14	ug/L			03/20/14 12:45	1
Chloromethane	ND		0.50	0.063	ug/L			03/20/14 12:45	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/20/14 12:45	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/20/14 12:45	1
Dibromomethane	ND		0.50	0.17	ug/L			03/20/14 12:45	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/20/14 12:45	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/20/14 12:45	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/20/14 12:45	1

Client Sample ID: PW-2
Date Collected: 03/18/14 08:40
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56254-1
Matrix: Water

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl ether	ND		0.50	0.12	ug/L			03/20/14 12:45	1
Ethylbenzene	ND		0.50	0.11	ug/L			03/20/14 12:45	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/20/14 12:45	1
Iodomethane	ND		0.50	0.15	ug/L			03/20/14 12:45	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/20/14 12:45	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/20/14 12:45	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/20/14 12:45	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/20/14 12:45	1
Naphthalene	ND		0.50	0.060	ug/L			03/20/14 12:45	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/20/14 12:45	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/20/14 12:45	1
o-Xylene	ND		0.50	0.044	ug/L			03/20/14 12:45	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/20/14 12:45	1
Styrene	ND		0.50	0.044	ug/L			03/20/14 12:45	1
t-Butanol	ND		10	2.5	ug/L			03/20/14 12:45	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/20/14 12:45	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/20/14 12:45	1
Toluene	ND		0.50	0.10	ug/L			03/20/14 12:45	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/20/14 12:45	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/20/14 12:45	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/20/14 12:45	1
Trichloroethene	ND		0.50	0.060	ug/L			03/20/14 12:45	1
Trichlorofluoromethane	ND		0.50	0.044	ug/L			03/20/14 12:45	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/20/14 12:45	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/20/14 12:45	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/20/14 12:45	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/20/14 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichlorobenzene-d4	*95*		*80 - 120*		*03/20/14 12:45*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*03/20/14 12:45*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/20/14 09:40	03/22/14 01:04	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/22/14 01:04	1
Barium	**0.0038**		0.0020	0.00070	mg/L		03/20/14 09:40	03/22/14 01:04	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/22/14 01:04	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/22/14 01:04	1
Calcium	**20.5**		0.50	0.10	mg/L		03/20/14 09:40	03/22/14 01:04	1
Chromium	ND		0.0040	0.0010	mg/L		03/20/14 09:40	03/22/14 01:04	1
Cobalt	ND		0.0040	0.00063	mg/L		03/20/14 09:40	03/22/14 01:04	1
Copper	**0.063**		0.010	0.0016	mg/L		03/20/14 09:40	03/26/14 04:01	1
Iron	**0.11**		0.050	0.019	mg/L		03/20/14 09:40	03/22/14 01:04	1
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/22/14 01:04	1
Magnesium	**2.5**		0.20	0.043	mg/L		03/20/14 09:40	03/22/14 01:04	1
Manganese	**0.041**		0.0030	0.00040	mg/L		03/20/14 09:40	03/22/14 01:04	1
Nickel	ND		0.010	0.0013	mg/L		03/20/14 09:40	03/22/14 01:04	1
Potassium	**1.2**		0.50	0.10	mg/L		03/20/14 09:40	03/22/14 01:04	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/22/14 01:04	1

Client Sample ID: PW-2
Date Collected: 03/18/14 08:40
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56254-1
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/22/14 01:04	1
Sodium	**7.2**		1.0	0.32	mg/L		03/20/14 09:40	03/22/14 01:04	1
Vanadium	ND		0.0050	0.0015	mg/L		03/20/14 09:40	03/22/14 01:04	1
Zinc	**0.038**		0.010	0.0015	mg/L		03/20/14 09:40	03/22/14 01:04	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/26/14 11:25	03/27/14 23:54	1
Thallium	ND		0.50	0.0080	ug/L		03/26/14 11:25	03/27/14 23:54	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	**44.0**		10.0	4.0	mg/L			03/21/14 09:53	1
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/25/14 08:32	03/25/14 17:10	1
Chemical Oxygen Demand	ND	*	10.0	5.0	mg/L			03/20/14 08:42	1
Hardness as calcium carbonate	**80.0**		4.0	1.1	mg/L			03/20/14 08:00	1

Surrogate Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56184-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB	12DCB
Lab Sample ID	Client Sample ID	(80-120)	(80-120)
480-56184-1	PW-1	95	96
480-56184-2	SVWC-93	95	96
480-56184-3	SVWC-94	93	97
480-56184-4	SVWC-95	94	98
480-56184-5	SVWC-96	94	99
480-56184-6	TB	93	97
480-56254-1	PW-2	92	95
LCS 480-170767/4	Lab Control Sample	97	95
LCS 480-170983/4	Lab Control Sample	98	93
LCSD 480-170767/5	Lab Control Sample Dup	95	93
LCSD 480-170983/5	Lab Control Sample Dup	96	93
MB 480-170767/6	Method Blank	92	96
MB 480-170983/6	Method Blank	93	97

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

12DCB = 1,2-Dichlorobenzene-d4

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-170767/6
Matrix: Water
Analysis Batch: 170767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/19/14 12:24	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/19/14 12:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/19/14 12:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/19/14 12:24	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/19/14 12:24	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/19/14 12:24	1
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/19/14 12:24	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/19/14 12:24	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/19/14 12:24	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/19/14 12:24	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 12:24	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/19/14 12:24	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/19/14 12:24	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/19/14 12:24	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/19/14 12:24	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/19/14 12:24	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/19/14 12:24	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/19/14 12:24	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 12:24	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/19/14 12:24	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/19/14 12:24	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/19/14 12:24	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/19/14 12:24	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 12:24	1
2-Hexanone	ND		2.5	0.23	ug/L			03/19/14 12:24	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/19/14 12:24	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/19/14 12:24	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/19/14 12:24	1
Acetone	ND		2.5	0.54	ug/L			03/19/14 12:24	1
Acrylonitrile	ND		10	0.23	ug/L			03/19/14 12:24	1
Allyl chloride	ND		0.50	0.091	ug/L			03/19/14 12:24	1
Benzene	ND		0.50	0.13	ug/L			03/19/14 12:24	1
Bromobenzene	ND		0.50	0.13	ug/L			03/19/14 12:24	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/19/14 12:24	1
Bromoform	ND		0.50	0.13	ug/L			03/19/14 12:24	1
Bromomethane	ND		0.50	0.051	ug/L			03/19/14 12:24	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/19/14 12:24	1
Carbon tetrachloride	ND		0.50	0.053	ug/L			03/19/14 12:24	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/19/14 12:24	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/19/14 12:24	1
Chloroethane	ND		0.50	0.070	ug/L			03/19/14 12:24	1
Chloroform	ND		0.50	0.14	ug/L			03/19/14 12:24	1
Chloromethane	ND		0.50	0.063	ug/L			03/19/14 12:24	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/19/14 12:24	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/19/14 12:24	1
Dibromomethane	ND		0.50	0.17	ug/L			03/19/14 12:24	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/19/14 12:24	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/19/14 12:24	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-170767/6
Matrix: Water
Analysis Batch: 170767

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl ether	ND		0.50	0.12	ug/L			03/19/14 12:24	1
Ethylbenzene	ND		0.50	0.11	ug/L			03/19/14 12:24	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/19/14 12:24	1
Iodomethane	ND		0.50	0.15	ug/L			03/19/14 12:24	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/19/14 12:24	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/19/14 12:24	1
Methylene Chloride	ND		0.50	0.25	ug/L			03/19/14 12:24	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/19/14 12:24	1
Naphthalene	ND		0.50	0.060	ug/L			03/19/14 12:24	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/19/14 12:24	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/19/14 12:24	1
o-Xylene	ND		0.50	0.044	ug/L			03/19/14 12:24	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/19/14 12:24	1
Styrene	ND		0.50	0.044	ug/L			03/19/14 12:24	1
t-Butanol	ND		10	2.5	ug/L			03/19/14 12:24	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/19/14 12:24	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/19/14 12:24	1
Toluene	ND		0.50	0.10	ug/L			03/19/14 12:24	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/19/14 12:24	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/19/14 12:24	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/19/14 12:24	1
Trichloroethene	ND		0.50	0.060	ug/L			03/19/14 12:24	1
Trichlorofluoromethane	ND		0.50	0.044	ug/L			03/19/14 12:24	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/19/14 12:24	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/19/14 12:24	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/19/14 12:24	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/19/14 12:24	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/19/14 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*03/19/14 12:24*	*1*
1,2-Dichlorobenzene-d4	*96*		*80 - 120*		*03/19/14 12:24*	*1*

Lab Sample ID: LCS 480-170767/4
Matrix: Water
Analysis Batch: 170767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	4.00	4.23		ug/L		106	70 - 130
1,1,1-Trichloroethane	4.00	4.86		ug/L		122	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.69		ug/L		92	70 - 130
1,1,2-Trichloroethane	4.00	3.87		ug/L		97	70 - 130
1,1-Dichloroethane	4.00	4.29		ug/L		107	70 - 130
1,1-Dichloroethene	4.00	4.50		ug/L		113	70 - 130
1,1-Dichloropropene	4.00	4.55		ug/L		114	70 - 130
1,2,3-Trichlorobenzene	4.00	4.64		ug/L		116	70 - 130
1,2,3-Trichloropropane	4.00	4.06		ug/L		101	70 - 130
1,2,4-Trichlorobenzene	4.00	4.39		ug/L		110	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-170767/4
Matrix: Water
Analysis Batch: 170767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	4.00	4.04		ug/L		101	70 - 130
1,2-Dibromo-3-Chloropropane	4.00	4.03		ug/L		101	70 - 130
1,2-Dibromoethane	4.00	3.98		ug/L		100	70 - 130
1,2-Dichlorobenzene	4.00	3.93		ug/L		98	70 - 130
1,2-Dichloroethane	4.00	4.61		ug/L		115	70 - 130
1,2-Dichloropropane	4.00	3.74		ug/L		94	70 - 130
1,3,5-Trimethylbenzene	4.00	4.08		ug/L		102	70 - 130
1,3-Dichlorobenzene	4.00	3.91		ug/L		98	70 - 130
1,3-Dichloropropane	4.00	4.05		ug/L		101	70 - 130
1,4-Dichlorobenzene	4.00	3.90		ug/L		97	70 - 130
2,2-Dichloropropane	4.00	4.65		ug/L		116	70 - 130
2-Butanone (MEK)	20.0	20.4		ug/L		102	70 - 130
2-Chlorotoluene	4.00	3.94		ug/L		98	70 - 130
2-Hexanone	20.0	19.1		ug/L		96	70 - 130
4-Chlorotoluene	4.00	3.93		ug/L		98	70 - 130
4-Isopropyltoluene	4.00	4.11		ug/L		103	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	18.4		ug/L		92	70 - 130
Acetone	20.0	21.1		ug/L		106	70 - 130
Benzene	4.00	4.16		ug/L		104	70 - 130
Bromobenzene	4.00	3.93		ug/L		98	70 - 130
Bromochloromethane	4.00	4.24		ug/L		106	70 - 130
Bromoform	4.00	3.45		ug/L		86	70 - 130
Bromomethane	4.00	4.91		ug/L		123	70 - 130
Carbon disulfide	4.00	4.15		ug/L		104	70 - 130
Carbon tetrachloride	4.00	5.14		ug/L		129	70 - 130
Chlorobenzene	4.00	3.93		ug/L		98	70 - 130
Chlorodibromomethane	3.92	4.26		ug/L		109	70 - 130
Chloroethane	4.00	4.44		ug/L		111	70 - 130
Chloroform	4.00	4.32		ug/L		108	70 - 130
Chloromethane	4.00	4.08		ug/L		102	70 - 130
cis-1,2-Dichloroethene	4.00	4.33		ug/L		108	70 - 130
cis-1,3-Dichloropropene	4.00	4.00		ug/L		100	70 - 130
Dibromomethane	4.00	4.04		ug/L		101	70 - 130
Dichlorobromomethane	4.00	4.19		ug/L		105	70 - 130
Dichlorodifluoromethane	4.00	4.66		ug/L		116	70 - 130
Ethylbenzene	4.00	4.09		ug/L		102	70 - 130
Hexachlorobutadiene	4.00	4.87		ug/L		122	70 - 130
Isopropylbenzene	4.00	4.17		ug/L		104	70 - 130
Methyl tert-butyl ether	4.00	4.35		ug/L		109	70 - 130
Methylene Chloride	4.00	4.08		ug/L		102	70 - 130
Naphthalene	4.00	4.12		ug/L		103	70 - 130
n-Butylbenzene	4.00	4.01		ug/L		100	70 - 130
N-Propylbenzene	4.00	3.94		ug/L		99	70 - 130
sec-Butylbenzene	4.00	4.11		ug/L		103	70 - 130
Styrene	4.00	4.05		ug/L		101	70 - 130
tert-Butylbenzene	4.00	4.05		ug/L		101	70 - 130
Tetrachloroethene	4.00	4.14		ug/L		104	70 - 130
Toluene	4.00	3.93		ug/L		98	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-170767/4
Matrix: Water
Analysis Batch: 170767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	4.00	4.22		ug/L		105	70 - 130
trans-1,3-Dichloropropene	4.00	4.31		ug/L		108	70 - 130
Trichloroethene	4.00	4.06		ug/L		102	70 - 130
Trichlorofluoromethane	4.00	5.52	*	ug/L		138	70 - 130
Vinyl chloride	4.00	4.60		ug/L		115	70 - 130
Xylenes, Total	8.00	8.22		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
1,2-Dichlorobenzene-d4	*95*		*80 - 120*

Lab Sample ID: LCSD 480-170767/5
Matrix: Water
Analysis Batch: 170767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.00	4.30		ug/L		108	70 - 130	2	20
1,1,1-Trichloroethane	4.00	4.90		ug/L		123	70 - 130	1	20
1,1,2,2-Tetrachloroethane	4.00	3.65		ug/L		91	70 - 130	1	20
1,1,2-Trichloroethane	4.00	3.93		ug/L		98	70 - 130	2	20
1,1-Dichloroethane	4.00	4.42		ug/L		110	70 - 130	3	20
1,1-Dichloroethene	4.00	4.66		ug/L		117	70 - 130	3	20
1,1-Dichloropropene	4.00	4.70		ug/L		117	70 - 130	3	20
1,2,3-Trichlorobenzene	4.00	4.52		ug/L		113	70 - 130	2	20
1,2,3-Trichloropropane	4.00	4.02		ug/L		101	70 - 130	1	20
1,2,4-Trichlorobenzene	4.00	4.36		ug/L		109	70 - 130	1	20
1,2,4-Trimethylbenzene	4.00	4.13		ug/L		103	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	4.00	3.89		ug/L		97	70 - 130	3	20
1,2-Dibromoethane	4.00	3.91		ug/L		98	70 - 130	2	20
1,2-Dichlorobenzene	4.00	3.97		ug/L		99	70 - 130	1	20
1,2-Dichloroethane	4.00	4.83		ug/L		121	70 - 130	5	20
1,2-Dichloropropane	4.00	3.85		ug/L		96	70 - 130	3	20
1,3,5-Trimethylbenzene	4.00	4.15		ug/L		104	70 - 130	2	20
1,3-Dichlorobenzene	4.00	3.97		ug/L		99	70 - 130	2	20
1,3-Dichloropropane	4.00	3.94		ug/L		99	70 - 130	3	20
1,4-Dichlorobenzene	4.00	3.91		ug/L		98	70 - 130	0	20
2,2-Dichloropropane	4.00	4.56		ug/L		114	70 - 130	2	20
2-Butanone (MEK)	20.0	20.0		ug/L		100	70 - 130	2	20
2-Chlorotoluene	4.00	4.05		ug/L		101	70 - 130	3	20
2-Hexanone	20.0	18.1		ug/L		90	70 - 130	6	20
4-Chlorotoluene	4.00	4.03		ug/L		101	70 - 130	2	20
4-Isopropyltoluene	4.00	4.22		ug/L		105	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	20.0	18.4		ug/L		92	70 - 130	0	20
Acetone	20.0	20.8		ug/L		104	70 - 130	2	20
Benzene	4.00	4.31		ug/L		108	70 - 130	4	20
Bromobenzene	4.00	4.00		ug/L		100	70 - 130	2	20
Bromochloromethane	4.00	4.36		ug/L		109	70 - 130	3	20
Bromoform	4.00	3.43		ug/L		86	70 - 130	1	20

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-170767/5
Matrix: Water
Analysis Batch: 170767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromomethane	4.00	5.76	*	ug/L		144	70 - 130	16	20
Carbon disulfide	4.00	4.31		ug/L		108	70 - 130	4	20
Carbon tetrachloride	4.00	5.32	*	ug/L		133	70 - 130	3	20
Chlorobenzene	4.00	3.97		ug/L		99	70 - 130	1	20
Chlorodibromomethane	3.92	4.26		ug/L		109	70 - 130	0	20
Chloroethane	4.00	4.58		ug/L		114	70 - 130	3	20
Chloroform	4.00	4.39		ug/L		110	70 - 130	2	20
Chloromethane	4.00	4.05		ug/L		101	70 - 130	1	20
cis-1,2-Dichloroethene	4.00	4.45		ug/L		111	70 - 130	3	20
cis-1,3-Dichloropropene	4.00	4.18		ug/L		105	70 - 130	5	20
Dibromomethane	4.00	3.83		ug/L		96	70 - 130	5	20
Dichlorobromomethane	4.00	4.25		ug/L		106	70 - 130	1	20
Dichlorodifluoromethane	4.00	4.79		ug/L		120	70 - 130	3	20
Ethylbenzene	4.00	4.10		ug/L		102	70 - 130	0	20
Hexachlorobutadiene	4.00	5.05		ug/L		126	70 - 130	4	20
Isopropylbenzene	4.00	4.19		ug/L		105	70 - 130	1	20
Methyl tert-butyl ether	4.00	4.48		ug/L		112	70 - 130	3	20
Methylene Chloride	4.00	4.10		ug/L		102	70 - 130	0	20
Naphthalene	4.00	4.04		ug/L		101	70 - 130	2	20
n-Butylbenzene	4.00	4.15		ug/L		104	70 - 130	4	20
N-Propylbenzene	4.00	4.04		ug/L		101	70 - 130	2	20
sec-Butylbenzene	4.00	4.22		ug/L		105	70 - 130	3	20
Styrene	4.00	4.04		ug/L		101	70 - 130	0	20
tert-Butylbenzene	4.00	4.18		ug/L		104	70 - 130	3	20
Tetrachloroethene	4.00	4.27		ug/L		107	70 - 130	3	20
Toluene	4.00	4.05		ug/L		101	70 - 130	3	20
trans-1,2-Dichloroethene	4.00	4.33		ug/L		108	70 - 130	3	20
trans-1,3-Dichloropropene	4.00	4.37		ug/L		109	70 - 130	1	20
Trichloroethene	4.00	4.11		ug/L		103	70 - 130	1	20
Trichlorofluoromethane	4.00	5.61	*	ug/L		140	70 - 130	2	20
Vinyl chloride	4.00	4.71		ug/L		118	70 - 130	2	20
Xylenes, Total	8.00	8.23		ug/L		103	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
1,2-Dichlorobenzene-d4	*93*		*80 - 120*

Lab Sample ID: MB 480-170983/6
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.14	ug/L			03/20/14 11:46	1
1,1,1-Trichloroethane	ND		0.50	0.063	ug/L			03/20/14 11:46	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/20/14 11:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.17	ug/L			03/20/14 11:46	1
1,1,2-Trichloroethane	ND		0.50	0.17	ug/L			03/20/14 11:46	1
1,1-Dichloroethane	ND		0.50	0.074	ug/L			03/20/14 11:46	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-170983/6
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.50	0.059	ug/L			03/20/14 11:46	1
1,1-Dichloropropene	ND		0.50	0.063	ug/L			03/20/14 11:46	1
1,2,3-Trichlorobenzene	ND		0.50	0.057	ug/L			03/20/14 11:46	1
1,2,3-Trichloropropane	ND		0.50	0.12	ug/L			03/20/14 11:46	1
1,2,4-Trichlorobenzene	ND		0.50	0.13	ug/L			03/20/14 11:46	1
1,2,4-Trimethylbenzene	ND		0.50	0.090	ug/L			03/20/14 11:46	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.21	ug/L			03/20/14 11:46	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			03/20/14 11:46	1
1,2-Dichlorobenzene	ND		0.50	0.16	ug/L			03/20/14 11:46	1
1,2-Dichloroethane	ND		0.50	0.14	ug/L			03/20/14 11:46	1
1,2-Dichloropropane	ND		0.50	0.11	ug/L			03/20/14 11:46	1
1,3,5-Trimethylbenzene	ND		0.50	0.043	ug/L			03/20/14 11:46	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			03/20/14 11:46	1
1,3-Dichloropropane	ND		0.50	0.15	ug/L			03/20/14 11:46	1
1,4-Dichlorobenzene	ND		0.50	0.13	ug/L			03/20/14 11:46	1
2,2-Dichloropropane	ND		0.50	0.048	ug/L			03/20/14 11:46	1
2-Butanone (MEK)	ND		2.5	0.25	ug/L			03/20/14 11:46	1
2-Chlorotoluene	ND		0.50	0.050	ug/L			03/20/14 11:46	1
2-Hexanone	ND		2.5	0.23	ug/L			03/20/14 11:46	1
4-Chlorotoluene	ND		0.50	0.050	ug/L			03/20/14 11:46	1
4-Isopropyltoluene	ND		0.50	0.063	ug/L			03/20/14 11:46	1
4-Methyl-2-pentanone (MIBK)	ND		2.5	0.26	ug/L			03/20/14 11:46	1
Acetone	ND		2.5	0.54	ug/L			03/20/14 11:46	1
Acrylonitrile	ND		10	0.23	ug/L			03/20/14 11:46	1
Allyl chloride	ND		0.50	0.091	ug/L			03/20/14 11:46	1
Benzene	ND		0.50	0.13	ug/L			03/20/14 11:46	1
Bromobenzene	ND		0.50	0.13	ug/L			03/20/14 11:46	1
Bromochloromethane	ND		0.50	0.11	ug/L			03/20/14 11:46	1
Bromoform	ND		0.50	0.13	ug/L			03/20/14 11:46	1
Bromomethane	ND		0.50	0.051	ug/L			03/20/14 11:46	1
Carbon disulfide	ND		0.50	0.15	ug/L			03/20/14 11:46	1
Carbon tetrachloride	ND		0.50	0.053	ug/L			03/20/14 11:46	1
Chlorobenzene	ND		0.50	0.12	ug/L			03/20/14 11:46	1
Chlorodibromomethane	ND		0.50	0.16	ug/L			03/20/14 11:46	1
Chloroethane	ND		0.50	0.070	ug/L			03/20/14 11:46	1
Chloroform	ND		0.50	0.14	ug/L			03/20/14 11:46	1
Chloromethane	ND		0.50	0.063	ug/L			03/20/14 11:46	1
cis-1,2-Dichloroethene	ND		0.50	0.12	ug/L			03/20/14 11:46	1
cis-1,3-Dichloropropene	ND		0.50	0.080	ug/L			03/20/14 11:46	1
Dibromomethane	ND		0.50	0.17	ug/L			03/20/14 11:46	1
Dichlorobromomethane	ND		0.50	0.14	ug/L			03/20/14 11:46	1
Dichlorodifluoromethane	ND		0.50	0.070	ug/L			03/20/14 11:46	1
Ethyl ether	ND		0.50	0.12	ug/L			03/20/14 11:46	1
Ethylbenzene	ND		0.50	0.11	ug/L			03/20/14 11:46	1
Hexachlorobutadiene	ND		0.50	0.11	ug/L			03/20/14 11:46	1
Iodomethane	ND		0.50	0.15	ug/L			03/20/14 11:46	1
Isopropylbenzene	ND		0.50	0.053	ug/L			03/20/14 11:46	1
Methyl tert-butyl ether	ND		0.50	0.12	ug/L			03/20/14 11:46	1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-170983/6
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		0.50	0.25	ug/L			03/20/14 11:46	1
m-Xylene & p-Xylene	ND		1.0	0.087	ug/L			03/20/14 11:46	1
Naphthalene	ND		0.50	0.060	ug/L			03/20/14 11:46	1
n-Butylbenzene	ND		0.50	0.081	ug/L			03/20/14 11:46	1
N-Propylbenzene	ND		0.50	0.057	ug/L			03/20/14 11:46	1
o-Xylene	ND		0.50	0.044	ug/L			03/20/14 11:46	1
sec-Butylbenzene	ND		0.50	0.068	ug/L			03/20/14 11:46	1
Styrene	ND		0.50	0.044	ug/L			03/20/14 11:46	1
t-Butanol	ND		10	2.5	ug/L			03/20/14 11:46	1
tert-Butylbenzene	ND		0.50	0.060	ug/L			03/20/14 11:46	1
Tetrachloroethene	ND		0.50	0.067	ug/L			03/20/14 11:46	1
Toluene	ND		0.50	0.10	ug/L			03/20/14 11:46	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ug/L			03/20/14 11:46	1
trans-1,3-Dichloropropene	ND		0.50	0.10	ug/L			03/20/14 11:46	1
trans-1,4-Dichloro-2-butene	ND		2.5	1.3	ug/L			03/20/14 11:46	1
Trichloroethene	ND		0.50	0.060	ug/L			03/20/14 11:46	1
Trichlorofluoromethane	ND		0.50	0.044	ug/L			03/20/14 11:46	1
Trihalomethanes, Total	ND		2.0	1.0	ug/L			03/20/14 11:46	1
Vinyl acetate	ND		2.5	0.17	ug/L			03/20/14 11:46	1
Vinyl chloride	ND		0.50	0.059	ug/L			03/20/14 11:46	1
Xylenes, Total	ND		1.0	0.20	ug/L			03/20/14 11:46	1
Dichlorofluoromethane	ND		0.50	0.13	ug/L			03/20/14 11:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*03/20/14 11:46*	*1*
1,2-Dichlorobenzene-d4	*97*		*80 - 120*		*03/20/14 11:46*	*1*

Lab Sample ID: LCS 480-170983/4
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	4.00	4.04		ug/L		101	70 - 130
1,1,1-Trichloroethane	4.00	4.54		ug/L		113	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.49		ug/L		87	70 - 130
1,1,2-Trichloroethane	4.00	3.56		ug/L		89	70 - 130
1,1-Dichloroethane	4.00	4.02		ug/L		101	70 - 130
1,1-Dichloroethene	4.00	4.24		ug/L		106	70 - 130
1,1-Dichloropropene	4.00	4.17		ug/L		104	70 - 130
1,2,3-Trichlorobenzene	4.00	4.37		ug/L		109	70 - 130
1,2,3-Trichloropropane	4.00	3.97		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	4.00	4.19		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	4.00	3.80		ug/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	4.00	3.83		ug/L		96	70 - 130
1,2-Dibromoethane	4.00	3.69		ug/L		92	70 - 130
1,2-Dichlorobenzene	4.00	3.67		ug/L		92	70 - 130
1,2-Dichloroethane	4.00	4.37		ug/L		109	70 - 130
1,2-Dichloropropane	4.00	3.61		ug/L		90	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-170983/4
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	4.00	3.87		ug/L		97	70 - 130
1,3-Dichlorobenzene	4.00	3.70		ug/L		92	70 - 130
1,3-Dichloropropane	4.00	3.78		ug/L		95	70 - 130
1,4-Dichlorobenzene	4.00	3.63		ug/L		91	70 - 130
2,2-Dichloropropane	4.00	4.39		ug/L		110	70 - 130
2-Butanone (MEK)	20.0	18.5		ug/L		92	70 - 130
2-Chlorotoluene	4.00	3.75		ug/L		94	70 - 130
2-Hexanone	20.0	17.5		ug/L		88	70 - 130
4-Chlorotoluene	4.00	3.76		ug/L		94	70 - 130
4-Isopropyltoluene	4.00	3.96		ug/L		99	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	17.0		ug/L		85	70 - 130
Acetone	20.0	18.8		ug/L		94	70 - 130
Benzene	4.00	3.96		ug/L		99	70 - 130
Bromobenzene	4.00	3.69		ug/L		92	70 - 130
Bromochloromethane	4.00	3.91		ug/L		98	70 - 130
Bromoform	4.00	3.28		ug/L		82	70 - 130
Bromomethane	4.00	4.86		ug/L		122	70 - 130
Carbon disulfide	4.00	3.94		ug/L		98	70 - 130
Carbon tetrachloride	4.00	4.92		ug/L		123	70 - 130
Chlorobenzene	4.00	3.75		ug/L		94	70 - 130
Chlorodibromomethane	3.92	3.99		ug/L		102	70 - 130
Chloroethane	4.00	4.21		ug/L		105	70 - 130
Chloroform	4.00	4.03		ug/L		101	70 - 130
Chloromethane	4.00	3.89		ug/L		97	70 - 130
cis-1,2-Dichloroethene	4.00	4.05		ug/L		101	70 - 130
cis-1,3-Dichloropropene	4.00	3.85		ug/L		96	70 - 130
Dibromomethane	4.00	3.76		ug/L		94	70 - 130
Dichlorobromomethane	4.00	3.93		ug/L		98	70 - 130
Dichlorodifluoromethane	4.00	4.50		ug/L		112	70 - 130
Ethylbenzene	4.00	3.85		ug/L		96	70 - 130
Hexachlorobutadiene	4.00	4.82		ug/L		121	70 - 130
Isopropylbenzene	4.00	3.97		ug/L		99	70 - 130
Methyl tert-butyl ether	4.00	4.17		ug/L		104	70 - 130
Methylene Chloride	4.00	3.78		ug/L		94	70 - 130
Naphthalene	4.00	3.89		ug/L		97	70 - 130
n-Butylbenzene	4.00	3.89		ug/L		97	70 - 130
N-Propylbenzene	4.00	3.81		ug/L		95	70 - 130
sec-Butylbenzene	4.00	3.94		ug/L		98	70 - 130
Styrene	4.00	3.78		ug/L		94	70 - 130
tert-Butylbenzene	4.00	3.92		ug/L		98	70 - 130
Tetrachloroethene	4.00	3.98		ug/L		100	70 - 130
Toluene	4.00	3.69		ug/L		92	70 - 130
trans-1,2-Dichloroethene	4.00	3.97		ug/L		99	70 - 130
trans-1,3-Dichloropropene	4.00	4.00		ug/L		100	70 - 130
Trichloroethene	4.00	3.76		ug/L		94	70 - 130
Trichlorofluoromethane	4.00	5.20		ug/L		130	70 - 130
Vinyl chloride	4.00	4.48		ug/L		112	70 - 130
Xylenes, Total	8.00	7.74		ug/L		97	70 - 130

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-170983/4
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
1,2-Dichlorobenzene-d4	*93*		*80 - 120*

Lab Sample ID: LCSD 480-170983/5
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.00	4.03		ug/L		101	70 - 130	0	20
1,1,1-Trichloroethane	4.00	4.48		ug/L		112	70 - 130	1	20
1,1,2,2-Tetrachloroethane	4.00	3.44		ug/L		86	70 - 130	1	20
1,1,2-Trichloroethane	4.00	3.65		ug/L		91	70 - 130	2	20
1,1-Dichloroethane	4.00	4.02		ug/L		101	70 - 130	0	20
1,1-Dichloroethene	4.00	4.32		ug/L		108	70 - 130	2	20
1,1-Dichloropropene	4.00	4.19		ug/L		105	70 - 130	1	20
1,2,3-Trichlorobenzene	4.00	4.38		ug/L		110	70 - 130	0	20
1,2,3-Trichloropropane	4.00	3.93		ug/L		98	70 - 130	1	20
1,2,4-Trichlorobenzene	4.00	4.20		ug/L		105	70 - 130	0	20
1,2,4-Trimethylbenzene	4.00	3.80		ug/L		95	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	4.00	3.75		ug/L		94	70 - 130	2	20
1,2-Dibromoethane	4.00	3.78		ug/L		94	70 - 130	2	20
1,2-Dichlorobenzene	4.00	3.67		ug/L		92	70 - 130	0	20
1,2-Dichloroethane	4.00	4.44		ug/L		111	70 - 130	2	20
1,2-Dichloropropane	4.00	3.47		ug/L		87	70 - 130	4	20
1,3,5-Trimethylbenzene	4.00	3.82		ug/L		96	70 - 130	1	20
1,3-Dichlorobenzene	4.00	3.69		ug/L		92	70 - 130	0	20
1,3-Dichloropropane	4.00	3.92		ug/L		98	70 - 130	3	20
1,4-Dichlorobenzene	4.00	3.63		ug/L		91	70 - 130	0	20
2,2-Dichloropropane	4.00	4.28		ug/L		107	70 - 130	3	20
2-Butanone (MEK)	20.0	19.0		ug/L		95	70 - 130	3	20
2-Chlorotoluene	4.00	3.74		ug/L		93	70 - 130	0	20
2-Hexanone	20.0	17.4		ug/L		87	70 - 130	0	20
4-Chlorotoluene	4.00	3.70		ug/L		93	70 - 130	2	20
4-Isopropyltoluene	4.00	3.90		ug/L		97	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	20.0	17.5		ug/L		87	70 - 130	3	20
Acetone	20.0	19.6		ug/L		98	70 - 130	4	20
Benzene	4.00	3.97		ug/L		99	70 - 130	0	20
Bromobenzene	4.00	3.73		ug/L		93	70 - 130	1	20
Bromochloromethane	4.00	4.09		ug/L		102	70 - 130	4	20
Bromoform	4.00	3.39		ug/L		85	70 - 130	3	20
Bromomethane	4.00	4.49		ug/L		112	70 - 130	8	20
Carbon disulfide	4.00	3.93		ug/L		98	70 - 130	0	20
Carbon tetrachloride	4.00	4.76		ug/L		119	70 - 130	3	20
Chlorobenzene	4.00	3.73		ug/L		93	70 - 130	0	20
Chlorodibromomethane	3.92	3.93		ug/L		100	70 - 130	2	20
Chloroethane	4.00	4.09		ug/L		102	70 - 130	3	20
Chloroform	4.00	4.02		ug/L		100	70 - 130	0	20
Chloromethane	4.00	3.86		ug/L		96	70 - 130	1	20

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-170983/5
Matrix: Water
Analysis Batch: 170983

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	4.00	4.11		ug/L		103	70 - 130	1	20
cis-1,3-Dichloropropene	4.00	3.89		ug/L		97	70 - 130	1	20
Dibromomethane	4.00	3.84		ug/L		96	70 - 130	2	20
Dichlorobromomethane	4.00	3.96		ug/L		99	70 - 130	1	20
Dichlorodifluoromethane	4.00	4.37		ug/L		109	70 - 130	3	20
Ethylbenzene	4.00	3.82		ug/L		95	70 - 130	1	20
Hexachlorobutadiene	4.00	4.82		ug/L		120	70 - 130	0	20
Isopropylbenzene	4.00	3.94		ug/L		98	70 - 130	1	20
Methyl tert-butyl ether	4.00	4.32		ug/L		108	70 - 130	4	20
Methylene Chloride	4.00	3.79		ug/L		95	70 - 130	0	20
Naphthalene	4.00	3.91		ug/L		98	70 - 130	1	20
n-Butylbenzene	4.00	3.78		ug/L		94	70 - 130	3	20
N-Propylbenzene	4.00	3.71		ug/L		93	70 - 130	2	20
sec-Butylbenzene	4.00	3.88		ug/L		97	70 - 130	2	20
Styrene	4.00	3.77		ug/L		94	70 - 130	0	20
tert-Butylbenzene	4.00	3.90		ug/L		97	70 - 130	1	20
Tetrachloroethene	4.00	3.82		ug/L		96	70 - 130	4	20
Toluene	4.00	3.74		ug/L		94	70 - 130	1	20
trans-1,2-Dichloroethene	4.00	3.95		ug/L		99	70 - 130	1	20
trans-1,3-Dichloropropene	4.00	4.07		ug/L		102	70 - 130	2	20
Trichloroethene	4.00	3.77		ug/L		94	70 - 130	0	20
Trichlorofluoromethane	4.00	5.08		ug/L		127	70 - 130	2	20
Vinyl chloride	4.00	4.35		ug/L		109	70 - 130	3	20
Xylenes, Total	8.00	7.67		ug/L		96	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
1,2-Dichlorobenzene-d4	*93*		*80 - 120*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-170729/1-A
Matrix: Water
Analysis Batch: 171196

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170729

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/19/14 09:45	03/20/14 22:47	1
Arsenic	ND		0.010	0.0056	mg/L		03/19/14 09:45	03/20/14 22:47	1
Barium	ND		0.0020	0.00070	mg/L		03/19/14 09:45	03/20/14 22:47	1
Beryllium	ND		0.0020	0.00030	mg/L		03/19/14 09:45	03/20/14 22:47	1
Cadmium	ND		0.0010	0.00050	mg/L		03/19/14 09:45	03/20/14 22:47	1
Calcium	ND		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 22:47	1
Chromium	ND	^	0.0040	0.0010	mg/L		03/19/14 09:45	03/20/14 22:47	1
Cobalt	ND		0.0040	0.00063	mg/L		03/19/14 09:45	03/20/14 22:47	1
Copper	ND		0.010	0.0016	mg/L		03/19/14 09:45	03/20/14 22:47	1
Iron	ND		0.050	0.019	mg/L		03/19/14 09:45	03/20/14 22:47	1
Lead	ND		0.0050	0.0030	mg/L		03/19/14 09:45	03/20/14 22:47	1
Magnesium	ND		0.20	0.043	mg/L		03/19/14 09:45	03/20/14 22:47	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 480-170729/1-A
Matrix: Water
Analysis Batch: 171196

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170729

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.0030	0.00040	mg/L		03/19/14 09:45	03/20/14 22:47	1
Nickel	ND		0.010	0.0013	mg/L		03/19/14 09:45	03/20/14 22:47	1
Potassium	ND		0.50	0.10	mg/L		03/19/14 09:45	03/20/14 22:47	1
Selenium	ND		0.015	0.0087	mg/L		03/19/14 09:45	03/20/14 22:47	1
Silver	ND		0.0030	0.0017	mg/L		03/19/14 09:45	03/20/14 22:47	1
Sodium	0.639	J	1.0	0.32	mg/L		03/19/14 09:45	03/20/14 22:47	1
Vanadium	ND		0.0050	0.0015	mg/L		03/19/14 09:45	03/20/14 22:47	1
Zinc	ND		0.010	0.0015	mg/L		03/19/14 09:45	03/20/14 22:47	1

Lab Sample ID: LCS 480-170729/2-A
Matrix: Water
Analysis Batch: 171196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170729

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	9.74		mg/L		97	85 - 115
Arsenic	0.200	0.198		mg/L		99	85 - 115
Barium	0.200	0.203		mg/L		102	85 - 115
Beryllium	0.200	0.192		mg/L		96	85 - 115
Cadmium	0.200	0.191		mg/L		96	85 - 115
Calcium	10.0	9.54		mg/L		95	85 - 115
Chromium	0.200	0.195		mg/L		98	85 - 115
Cobalt	0.200	0.186		mg/L		93	85 - 115
Copper	0.200	0.191		mg/L		96	85 - 115
Iron	10.0	9.36		mg/L		94	85 - 115
Lead	0.200	0.188		mg/L		94	85 - 115
Magnesium	10.0	9.77		mg/L		98	85 - 115
Manganese	0.200	0.190		mg/L		95	85 - 115
Nickel	0.200	0.181		mg/L		91	85 - 115
Potassium	10.0	9.41		mg/L		94	85 - 115
Selenium	0.200	0.194		mg/L		97	85 - 115
Silver	0.0500	0.0478		mg/L		96	85 - 115
Sodium	10.0	9.70		mg/L		97	85 - 115
Vanadium	0.200	0.188		mg/L		94	85 - 115
Zinc	0.200	0.189		mg/L		94	85 - 115

Lab Sample ID: MB 480-170959/1-A
Matrix: Water
Analysis Batch: 171492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		03/20/14 09:40	03/22/14 00:30	1
Arsenic	ND		0.010	0.0056	mg/L		03/20/14 09:40	03/22/14 00:30	1
Barium	ND		0.0020	0.00070	mg/L		03/20/14 09:40	03/22/14 00:30	1
Beryllium	ND		0.0020	0.00030	mg/L		03/20/14 09:40	03/22/14 00:30	1
Cadmium	ND		0.0010	0.00050	mg/L		03/20/14 09:40	03/22/14 00:30	1
Calcium	ND		0.50	0.10	mg/L		03/20/14 09:40	03/22/14 00:30	1
Chromium	ND		0.0040	0.0010	mg/L		03/20/14 09:40	03/22/14 00:30	1
Cobalt	ND		0.0040	0.00063	mg/L		03/20/14 09:40	03/22/14 00:30	1
Iron	ND		0.050	0.019	mg/L		03/20/14 09:40	03/22/14 00:30	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 480-170959/1-A
Matrix: Water
Analysis Batch: 171492

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050	0.0030	mg/L		03/20/14 09:40	03/22/14 00:30	1
Magnesium	ND		0.20	0.043	mg/L		03/20/14 09:40	03/22/14 00:30	1
Manganese	ND		0.0030	0.00040	mg/L		03/20/14 09:40	03/22/14 00:30	1
Nickel	ND		0.010	0.0013	mg/L		03/20/14 09:40	03/22/14 00:30	1
Potassium	ND		0.50	0.10	mg/L		03/20/14 09:40	03/22/14 00:30	1
Selenium	ND		0.015	0.0087	mg/L		03/20/14 09:40	03/22/14 00:30	1
Silver	ND		0.0030	0.0017	mg/L		03/20/14 09:40	03/22/14 00:30	1
Sodium	ND		1.0	0.32	mg/L		03/20/14 09:40	03/22/14 00:30	1
Vanadium	ND		0.0050	0.0015	mg/L		03/20/14 09:40	03/22/14 00:30	1
Zinc	ND		0.010	0.0015	mg/L		03/20/14 09:40	03/22/14 00:30	1

Lab Sample ID: MB 480-170959/1-A
Matrix: Water
Analysis Batch: 172041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010	0.0016	mg/L		03/20/14 09:40	03/26/14 03:46	1

Lab Sample ID: LCS 480-170959/2-A
Matrix: Water
Analysis Batch: 171492

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10.0	10.37		mg/L		104	85 - 115
Arsenic	0.200	0.207		mg/L		104	85 - 115
Barium	0.200	0.212		mg/L		106	85 - 115
Beryllium	0.200	0.210		mg/L		105	85 - 115
Cadmium	0.200	0.203		mg/L		102	85 - 115
Calcium	10.0	9.77		mg/L		98	85 - 115
Chromium	0.200	0.203		mg/L		102	85 - 115
Cobalt	0.200	0.203		mg/L		102	85 - 115
Iron	10.0	9.76		mg/L		98	85 - 115
Lead	0.200	0.208		mg/L		104	85 - 115
Magnesium	10.0	10.32		mg/L		103	85 - 115
Manganese	0.200	0.196		mg/L		98	85 - 115
Nickel	0.200	0.197		mg/L		98	85 - 115
Potassium	10.0	10.43		mg/L		104	85 - 115
Selenium	0.200	0.203		mg/L		102	85 - 115
Silver	0.0500	0.0525		mg/L		105	85 - 115
Sodium	10.0	10.38		mg/L		104	85 - 115
Vanadium	0.200	0.206		mg/L		103	85 - 115
Zinc	0.200	0.202		mg/L		101	85 - 115

Lab Sample ID: LCS 480-170959/2-A
Matrix: Water
Analysis Batch: 172041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.200	0.223		mg/L		111	85 - 115

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 480-171993/1-A
Matrix: Water
Analysis Batch: 172587

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		3.0	0.15	ug/L		03/26/14 11:25	03/27/14 22:22	1
Thallium	ND		0.50	0.0080	ug/L		03/26/14 11:25	03/27/14 22:22	1

Lab Sample ID: LCS 480-171993/2-A
Matrix: Water
Analysis Batch: 172587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	20.0	19.86		ug/L		99	85 - 115
Thallium	20.0	21.43		ug/L		107	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-170768/1-A
Matrix: Water
Analysis Batch: 170866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170768

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/19/14 10:05	03/19/14 13:34	1

Lab Sample ID: LCS 480-170768/2-A
Matrix: Water
Analysis Batch: 170866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00640		mg/L		96	85 - 115

Lab Sample ID: MB 480-170951/1-A
Matrix: Water
Analysis Batch: 171233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/20/14 09:10	03/21/14 08:54	1

Lab Sample ID: LCS 480-170951/2-A
Matrix: Water
Analysis Batch: 171233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00715		mg/L		107	85 - 115

Method: 310.2 - Alkalinity

Lab Sample ID: MB 480-170878/106
Matrix: Water
Analysis Batch: 170878

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/19/14 15:32	1

Method: 310.2 - Alkalinity (Continued)

Lab Sample ID: LCS 480-170878/105
Matrix: Water
Analysis Batch: 170878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	49.64		mg/L		99	90 - 110

Lab Sample ID: MB 480-171308/18
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/21/14 09:20	1

Lab Sample ID: MB 480-171308/36
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10.0	4.0	mg/L			03/21/14 10:30	1

Lab Sample ID: LCS 480-171308/17
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	50.70		mg/L		101	90 - 110

Lab Sample ID: LCS 480-171308/35
Matrix: Water
Analysis Batch: 171308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	50.60		mg/L		101	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-171323/1-A
Matrix: Water
Analysis Batch: 171382

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171323

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/22/14 00:24	03/22/14 08:33	1

Lab Sample ID: LCS 480-171323/2-A
Matrix: Water
Analysis Batch: 171382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171323

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.26		mg/L		90	90 - 110

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: MB 480-171722/1-A
Matrix: Water
Analysis Batch: 171876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/25/14 08:32	03/25/14 16:30	1

Lab Sample ID: LCS 480-171722/2-A
Matrix: Water
Analysis Batch: 171876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.30		mg/L		92	90 - 110

Lab Sample ID: MB 480-172043/1-A
Matrix: Water
Analysis Batch: 172372

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 172043

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.15	mg/L		03/26/14 11:52	03/27/14 10:41	1

Lab Sample ID: LCS 480-172043/2-A
Matrix: Water
Analysis Batch: 172372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 172043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.26		mg/L		90	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-170702/27
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	6.25	J	10.0	5.0	mg/L			03/18/14 21:50	1

Lab Sample ID: MB 480-170702/3
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.93	J	10.0	5.0	mg/L			03/18/14 21:50	1

Lab Sample ID: LCS 480-170702/28
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.44		mg/L		106	90 - 110

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 480-170702/4
Matrix: Water
Analysis Batch: 170702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.76		mg/L		107	90 - 110

Lab Sample ID: 480-56184-A-5 MS
Matrix: Water
Analysis Batch: 170702

Client Sample ID: 480-56184-A-5 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	19.18		50.0	57.36		mg/L		76	75 - 125

Lab Sample ID: MB 480-171039/27
Matrix: Water
Analysis Batch: 171039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.30	J	10.0	5.0	mg/L			03/20/14 08:42	1

Lab Sample ID: MB 480-171039/3
Matrix: Water
Analysis Batch: 171039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10.0	5.0	mg/L			03/20/14 08:42	1

Lab Sample ID: MB 480-171039/51
Matrix: Water
Analysis Batch: 171039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	5.62	J	10.0	5.0	mg/L			03/20/14 08:42	1

Lab Sample ID: LCS 480-171039/28
Matrix: Water
Analysis Batch: 171039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.12		mg/L		104	90 - 110

Lab Sample ID: LCS 480-171039/4
Matrix: Water
Analysis Batch: 171039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	30.86	*	mg/L		123	90 - 110

Lab Sample ID: LCS 480-171039/52
Matrix: Water
Analysis Batch: 171039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	27.39		mg/L		110	90 - 110

Lab Sample ID: 480-56254-1 MS
Matrix: Water
Analysis Batch: 171039

Client Sample ID: PW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND	*	50.0	57.99		mg/L		116	75 - 125

Lab Sample ID: 480-56254-1 DU
Matrix: Water
Analysis Batch: 171039

Client Sample ID: PW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	ND	*	9.72	J *	mg/L		NC	20

Method: SM 2340C - Hardness, Total

Lab Sample ID: MB 480-170845/51
Matrix: Water
Analysis Batch: 170845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.0	0.53	mg/L			03/19/14 07:50	1

Lab Sample ID: MB 480-170845/75
Matrix: Water
Analysis Batch: 170845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.0	0.53	mg/L			03/19/14 07:50	1

Lab Sample ID: LCS 480-170845/52
Matrix: Water
Analysis Batch: 170845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	298	300.0		mg/L		101	90 - 110

Lab Sample ID: LCS 480-170845/76
Matrix: Water
Analysis Batch: 170845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	298	304.0		mg/L		102	90 - 110

Lab Sample ID: 480-56184-3 DU
Matrix: Water
Analysis Batch: 170845

Client Sample ID: SVWC-94
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	100		108.0		mg/L		8	15

Method: SM 2340C - Hardness, Total (Continued)

Lab Sample ID: 480-56184-4 DU
Matrix: Water
Analysis Batch: 170845

Client Sample ID: SVWC-95
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	104		108.0		mg/L		4	15

Lab Sample ID: MB 480-171055/27
Matrix: Water
Analysis Batch: 171055

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.0	0.53	mg/L			03/20/14 08:00	1

Lab Sample ID: LCS 480-171055/28
Matrix: Water
Analysis Batch: 171055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	298	296.0		mg/L		99	90 - 110

GC/MS VOA

Analysis Batch: 170767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	524.2	
480-56184-2	SVWC-93	Total/NA	Water	524.2	
480-56184-3	SVWC-94	Total/NA	Water	524.2	
480-56184-4	SVWC-95	Total/NA	Water	524.2	
480-56184-5	SVWC-96	Total/NA	Water	524.2	
480-56184-6	TB	Total/NA	Water	524.2	
LCS 480-170767/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-170767/5	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 480-170767/6	Method Blank	Total/NA	Water	524.2	

Analysis Batch: 170983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	524.2	
LCS 480-170983/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-170983/5	Lab Control Sample Dup	Total/NA	Water	524.2	
MB 480-170983/6	Method Blank	Total/NA	Water	524.2	

Metals

Prep Batch: 170729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	200.7	
480-56184-2	SVWC-93	Total/NA	Water	200.7	
480-56184-3	SVWC-94	Total/NA	Water	200.7	
480-56184-4	SVWC-95	Total/NA	Water	200.7	
480-56184-5	SVWC-96	Total/NA	Water	200.7	
LCS 480-170729/2-A	Lab Control Sample	Total/NA	Water	200.7	
MB 480-170729/1-A	Method Blank	Total/NA	Water	200.7	

Prep Batch: 170768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	245.1	
480-56184-2	SVWC-93	Total/NA	Water	245.1	
480-56184-3	SVWC-94	Total/NA	Water	245.1	
480-56184-4	SVWC-95	Total/NA	Water	245.1	
480-56184-5	SVWC-96	Total/NA	Water	245.1	
LCS 480-170768/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 480-170768/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 170866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	245.1	170768
480-56184-2	SVWC-93	Total/NA	Water	245.1	170768
480-56184-3	SVWC-94	Total/NA	Water	245.1	170768
480-56184-4	SVWC-95	Total/NA	Water	245.1	170768
480-56184-5	SVWC-96	Total/NA	Water	245.1	170768
LCS 480-170768/2-A	Lab Control Sample	Total/NA	Water	245.1	170768
MB 480-170768/1-A	Method Blank	Total/NA	Water	245.1	170768

Metals (Continued)

Prep Batch: 170951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	245.1	
LCS 480-170951/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 480-170951/1-A	Method Blank	Total/NA	Water	245.1	

Prep Batch: 170959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	200.7	
LCS 480-170959/2-A	Lab Control Sample	Total/NA	Water	200.7	
MB 480-170959/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 171196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	200.7 Rev 4.4	170729
480-56184-2	SVWC-93	Total/NA	Water	200.7 Rev 4.4	170729
480-56184-3	SVWC-94	Total/NA	Water	200.7 Rev 4.4	170729
480-56184-4	SVWC-95	Total/NA	Water	200.7 Rev 4.4	170729
480-56184-5	SVWC-96	Total/NA	Water	200.7 Rev 4.4	170729
LCS 480-170729/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	170729
MB 480-170729/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	170729

Analysis Batch: 171233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	245.1	170951
LCS 480-170951/2-A	Lab Control Sample	Total/NA	Water	245.1	170951
MB 480-170951/1-A	Method Blank	Total/NA	Water	245.1	170951

Analysis Batch: 171492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	200.7 Rev 4.4	170959
LCS 480-170959/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	170959
MB 480-170959/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	170959

Prep Batch: 171993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	200.8	
480-56184-2	SVWC-93	Total/NA	Water	200.8	
480-56184-3	SVWC-94	Total/NA	Water	200.8	
480-56184-4	SVWC-95	Total/NA	Water	200.8	
480-56184-5	SVWC-96	Total/NA	Water	200.8	
480-56254-1	PW-2	Total/NA	Water	200.8	
LCS 480-171993/2-A	Lab Control Sample	Total/NA	Water	200.8	
MB 480-171993/1-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 172041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	200.7 Rev 4.4	170959
LCS 480-170959/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	170959
MB 480-170959/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	170959

Metals (Continued)

Analysis Batch: 172587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	200.8	171993
480-56184-2	SVWC-93	Total/NA	Water	200.8	171993
480-56184-3	SVWC-94	Total/NA	Water	200.8	171993
480-56184-4	SVWC-95	Total/NA	Water	200.8	171993
480-56184-5	SVWC-96	Total/NA	Water	200.8	171993
480-56254-1	PW-2	Total/NA	Water	200.8	171993
LCS 480-171993/2-A	Lab Control Sample	Total/NA	Water	200.8	171993
MB 480-171993/1-A	Method Blank	Total/NA	Water	200.8	171993

General Chemistry

Analysis Batch: 170702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	410.4	
480-56184-3	SVWC-94	Total/NA	Water	410.4	
480-56184-A-5 MS	480-56184-A-5 MS	Total/NA	Water	410.4	
LCS 480-170702/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-170702/4	Lab Control Sample	Total/NA	Water	410.4	
MB 480-170702/27	Method Blank	Total/NA	Water	410.4	
MB 480-170702/3	Method Blank	Total/NA	Water	410.4	

Analysis Batch: 170845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	SM 2340C	
480-56184-2	SVWC-93	Total/NA	Water	SM 2340C	
480-56184-3	SVWC-94	Total/NA	Water	SM 2340C	
480-56184-3 DU	SVWC-94	Total/NA	Water	SM 2340C	
480-56184-4	SVWC-95	Total/NA	Water	SM 2340C	
480-56184-4 DU	SVWC-95	Total/NA	Water	SM 2340C	
480-56184-5	SVWC-96	Total/NA	Water	SM 2340C	
LCS 480-170845/52	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 480-170845/76	Lab Control Sample	Total/NA	Water	SM 2340C	
MB 480-170845/51	Method Blank	Total/NA	Water	SM 2340C	
MB 480-170845/75	Method Blank	Total/NA	Water	SM 2340C	

Analysis Batch: 170878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	310.2	
480-56184-2	SVWC-93	Total/NA	Water	310.2	
480-56184-3	SVWC-94	Total/NA	Water	310.2	
480-56184-4	SVWC-95	Total/NA	Water	310.2	
480-56184-5	SVWC-96	Total/NA	Water	310.2	
LCS 480-170878/105	Lab Control Sample	Total/NA	Water	310.2	
MB 480-170878/106	Method Blank	Total/NA	Water	310.2	

Analysis Batch: 171039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-2	SVWC-93	Total/NA	Water	410.4	
480-56184-4	SVWC-95	Total/NA	Water	410.4	
480-56184-5	SVWC-96	Total/NA	Water	410.4	

General Chemistry (Continued)

Analysis Batch: 171039 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	410.4	
480-56254-1 DU	PW-2	Total/NA	Water	410.4	
480-56254-1 MS	PW-2	Total/NA	Water	410.4	
LCS 480-171039/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-171039/4	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-171039/52	Lab Control Sample	Total/NA	Water	410.4	
MB 480-171039/27	Method Blank	Total/NA	Water	410.4	
MB 480-171039/3	Method Blank	Total/NA	Water	410.4	
MB 480-171039/51	Method Blank	Total/NA	Water	410.4	

Analysis Batch: 171055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	SM 2340C	
LCS 480-171055/28	Lab Control Sample	Total/NA	Water	SM 2340C	
MB 480-171055/27	Method Blank	Total/NA	Water	SM 2340C	

Analysis Batch: 171308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56254-1	PW-2	Total/NA	Water	310.2	
LCS 480-171308/17	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-171308/35	Lab Control Sample	Total/NA	Water	310.2	
MB 480-171308/18	Method Blank	Total/NA	Water	310.2	
MB 480-171308/36	Method Blank	Total/NA	Water	310.2	

Prep Batch: 171323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-3	SVWC-94	Total/NA	Water	351.2	
LCS 480-171323/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-171323/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 171382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-3	SVWC-94	Total/NA	Water	351.2	171323
LCS 480-171323/2-A	Lab Control Sample	Total/NA	Water	351.2	171323
MB 480-171323/1-A	Method Blank	Total/NA	Water	351.2	171323

Prep Batch: 171722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	351.2	
480-56184-2	SVWC-93	Total/NA	Water	351.2	
480-56184-5	SVWC-96	Total/NA	Water	351.2	
480-56254-1	PW-2	Total/NA	Water	351.2	
LCS 480-171722/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-171722/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 171876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-1	PW-1	Total/NA	Water	351.2	171722
480-56184-2	SVWC-93	Total/NA	Water	351.2	171722
480-56184-5	SVWC-96	Total/NA	Water	351.2	171722
480-56254-1	PW-2	Total/NA	Water	351.2	171722

General Chemistry (Continued)

Analysis Batch: 171876 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-171722/2-A	Lab Control Sample	Total/NA	Water	351.2	171722
MB 480-171722/1-A	Method Blank	Total/NA	Water	351.2	171722

Prep Batch: 172043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-4	SVWC-95	Total/NA	Water	351.2	
LCS 480-172043/2-A	Lab Control Sample	Total/NA	Water	351.2	
MB 480-172043/1-A	Method Blank	Total/NA	Water	351.2	

Analysis Batch: 172372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-56184-4	SVWC-95	Total/NA	Water	351.2	172043
LCS 480-172043/2-A	Lab Control Sample	Total/NA	Water	351.2	172043
MB 480-172043/1-A	Method Blank	Total/NA	Water	351.2	172043

Client Sample ID: PW-1

Lab Sample ID: 480-56184-1

Date Collected: 03/17/14 14:20

Matrix: Water

Date Received: 03/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	170767	03/19/14 14:13	CDC	TAL BUF
Total/NA	Prep	200.7			170729	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	171196	03/20/14 23:36	LMH	TAL BUF
Total/NA	Prep	200.8			171993	03/26/14 11:25	EHD	TAL BUF
Total/NA	Analysis	200.8		1	172587	03/27/14 23:26	MTM2	TAL BUF
Total/NA	Prep	245.1			170768	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	245.1		1	170866	03/19/14 14:00	LRK	TAL BUF
Total/NA	Analysis	310.2		1	170878	03/19/14 15:32	NCH	TAL BUF
Total/NA	Prep	351.2			171722	03/25/14 08:32	LAW	TAL BUF
Total/NA	Analysis	351.2		1	171876	03/25/14 17:03	CLT	TAL BUF
Total/NA	Analysis	410.4		1	170702	03/18/14 21:50	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: SVWC-93

Lab Sample ID: 480-56184-2

Date Collected: 03/17/14 10:40

Matrix: Water

Date Received: 03/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	170767	03/19/14 14:39	CDC	TAL BUF
Total/NA	Prep	200.7			170729	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	171196	03/20/14 23:38	LMH	TAL BUF
Total/NA	Prep	200.8			171993	03/26/14 11:25	EHD	TAL BUF
Total/NA	Analysis	200.8		1	172587	03/27/14 23:31	MTM2	TAL BUF
Total/NA	Prep	245.1			170768	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	245.1		1	170866	03/19/14 14:02	LRK	TAL BUF
Total/NA	Analysis	310.2		1	170878	03/19/14 15:32	NCH	TAL BUF
Total/NA	Prep	351.2			171722	03/25/14 08:32	LAW	TAL BUF
Total/NA	Analysis	351.2		1	171876	03/25/14 17:03	CLT	TAL BUF
Total/NA	Analysis	410.4		1	171039	03/20/14 08:42	KMF	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: SVWC-94

Lab Sample ID: 480-56184-3

Date Collected: 03/17/14 11:05

Matrix: Water

Date Received: 03/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	170767	03/19/14 15:04	CDC	TAL BUF
Total/NA	Prep	200.7			170729	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	171196	03/20/14 23:41	LMH	TAL BUF
Total/NA	Prep	200.8			171993	03/26/14 11:25	EHD	TAL BUF
Total/NA	Analysis	200.8		1	172587	03/27/14 23:37	MTM2	TAL BUF
Total/NA	Prep	245.1			170768	03/19/14 10:05	JRK	TAL BUF

Client Sample ID: SVWC-94 — **Lab Sample ID: 480-56184-3**
Date Collected: 03/17/14 11:05 — **Matrix: Water**
Date Received: 03/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	245.1		1	170866	03/19/14 14:04	LRK	TAL BUF
Total/NA	Analysis	310.2		1	170878	03/19/14 15:32	NCH	TAL BUF
Total/NA	Prep	351.2			171323	03/22/14 00:24	CLT	TAL BUF
Total/NA	Analysis	351.2		1	171382	03/22/14 10:33	NCH	TAL BUF
Total/NA	Analysis	410.4		1	170702	03/18/14 21:50	JMB	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: SVWC-95 — **Lab Sample ID: 480-56184-4**
Date Collected: 03/17/14 11:30 — **Matrix: Water**
Date Received: 03/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	170767	03/19/14 15:29	CDC	TAL BUF
Total/NA	Prep	200.7			170729	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	171196	03/20/14 23:44	LMH	TAL BUF
Total/NA	Prep	200.8			171993	03/26/14 11:25	EHD	TAL BUF
Total/NA	Analysis	200.8		1	172587	03/27/14 23:42	MTM2	TAL BUF
Total/NA	Prep	245.1			170768	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	245.1		1	170866	03/19/14 14:05	LRK	TAL BUF
Total/NA	Analysis	310.2		1	170878	03/19/14 15:32	NCH	TAL BUF
Total/NA	Prep	351.2			172043	03/26/14 11:52	KJ1	TAL BUF
Total/NA	Analysis	351.2		1	172372	03/27/14 12:49	NCH	TAL BUF
Total/NA	Analysis	410.4		1	171039	03/20/14 08:42	KMF	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: SVWC-96 — **Lab Sample ID: 480-56184-5**
Date Collected: 03/17/14 11:50 — **Matrix: Water**
Date Received: 03/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	170767	03/19/14 15:55	CDC	TAL BUF
Total/NA	Prep	200.7			170729	03/19/14 09:45	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	171196	03/20/14 23:47	LMH	TAL BUF
Total/NA	Prep	200.8			171993	03/26/14 11:25	EHD	TAL BUF
Total/NA	Analysis	200.8		1	172587	03/27/14 23:48	MTM2	TAL BUF
Total/NA	Prep	245.1			170768	03/19/14 10:05	JRK	TAL BUF
Total/NA	Analysis	245.1		1	170866	03/19/14 14:07	LRK	TAL BUF
Total/NA	Analysis	310.2		1	170878	03/19/14 15:32	NCH	TAL BUF
Total/NA	Prep	351.2			171722	03/25/14 08:32	LAW	TAL BUF
Total/NA	Analysis	351.2		1	171876	03/25/14 17:10	CLT	TAL BUF
Total/NA	Analysis	410.4		1	171039	03/20/14 08:42	KMF	TAL BUF
Total/NA	Analysis	SM 2340C		1	170845	03/19/14 07:50	MDL	TAL BUF

Client Sample ID: TB
Date Collected: 03/17/14 00:00
Date Received: 03/18/14 09:00

Lab Sample ID: 480-56184-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	170767	03/19/14 16:19	CDC	TAL BUF

Client Sample ID: PW-2
Date Collected: 03/18/14 08:40
Date Received: 03/19/14 09:00

Lab Sample ID: 480-56254-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	170983	03/20/14 12:45	CDC	TAL BUF
Total/NA	Prep	200.7			170959	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	172041	03/26/14 04:01	HTL	TAL BUF
Total/NA	Prep	200.7			170959	03/20/14 09:40	EHD	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	171492	03/22/14 01:04	HTL	TAL BUF
Total/NA	Prep	200.8			171993	03/26/14 11:25	EHD	TAL BUF
Total/NA	Analysis	200.8		1	172587	03/27/14 23:54	MTM2	TAL BUF
Total/NA	Prep	245.1			170951	03/20/14 09:10	JRK	TAL BUF
Total/NA	Analysis	245.1		1	171233	03/21/14 11:30	JRK	TAL BUF
Total/NA	Analysis	310.2		1	171308	03/21/14 09:53	NCH	TAL BUF
Total/NA	Prep	351.2			171722	03/25/14 08:32	LAW	TAL BUF
Total/NA	Analysis	351.2		1	171876	03/25/14 17:10	CLT	TAL BUF
Total/NA	Analysis	410.4		1	171039	03/20/14 08:42	KMF	TAL BUF
Total/NA	Analysis	SM 2340C		1	171055	03/20/14 08:00	MDL	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56184-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	State Program	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14 *
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15 *
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14 *
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14 *
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-14 *
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	04-01-14 *
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-15
West Virginia DEP	State Program	3	252	03-31-14 *
Wisconsin	State Program	5	998310390	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56184-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
200.8	Metals (ICP/MS)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
310.2	Alkalinity	MCAWW	TAL BUF
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
410.4	COD	MCAWW	TAL BUF
SM 2340C	Hardness, Total	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Sterling Environmental Engineering PC
Project/Site: Ramapo Landfill

TestAmerica Job ID: 480-56184-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-56184-1	PW-1	Water	03/17/14 14:20	03/18/14 09:00
480-56184-2	SVWC-93	Water	03/17/14 10:40	03/18/14 09:00
480-56184-3	SVWC-94	Water	03/17/14 11:05	03/18/14 09:00
480-56184-4	SVWC-95	Water	03/17/14 11:30	03/18/14 09:00
480-56184-5	SVWC-96	Water	03/17/14 11:50	03/18/14 09:00
480-56184-6	TB	Water	03/17/14 00:00	03/18/14 09:00
480-56254-1	PW-2	Water	03/18/14 08:40	03/19/14 09:00

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☒ No ☐

TestAm

THE LEADER IN ENVIR(

480-56184 Chain of Custody

TAL-4124 (1007)

Client: Sterling Env. Eng P.C.	Project Manager: Mark Millspaugh	3/17/14	247925
Address: 24 Wade Rd.	Telephone Number (Area Code)/Fax Number: (518) 956-4900	Lab Number	Page 1 of 2
City: Latham / State: NY / Zip Code: 12110	Site Contact: C. Verhoef	Lab Contact: Lisa Shaffer	
Project Name and Location (State): 20010	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TKN, COD	Alkalinity	Hardness	TAL Metals(1)	Total VOCs	Special Instructions/ Conditions of Receipt
SVWC-93	3/17/14	10:40		X			1	1	2	3								(1) Reporting limit for Antimony = 3.0ppb or less and Thallium = 0.5ppb or less
SVWC-94		11:05																
SVWC-95		11:30																
SVWC-96		11:50																
PW-1		14:40																
~~PW-2~~																		
Trip Blank																		

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard TAT

QC Requirements (Specify)

1. Relinquished By	Date 3/17/14	Time 1750	1. Received By TA BUFFALO	Date 3/18/14	Time 0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

2.8

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

PW-2 Drinking Water? Yes [X] No [X]

TestAme

THE LEADER IN ENVIRONM

480-56251 Chain of Custody

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Sterling Envi Eng. P.C.	Mark McSpaugh	3/18/14	227887
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
24 Wade Rd.	(518) 456-4900		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Latham / NY / 12110	C. Verhoef	Lisa Shaffer	
Project Name and Location (State)	**Carrier/Waybill Number**		
20010 Ramapo			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TKN, COD	Alkalinity	Hardness (CaCO3)	TAL Metals (1)	Site VOCs (2)	Total VOCs
2-OS	3/18/14	13:15		X			1	1	2	3			X	X	X	X	X	
PW-2		8:40											X	X	X	X		X
8-I		10:25															X	
8-OS		9:45																
8-R		9:50																
TRIP Blank										2							X	

Special Instructions/ Conditions of Receipt

(1) Reporting Limit for Antimony = 3.0ppb or less and Thallium = 0.5 ppb or less

(2) Site VOCs: 1,1-Dichloroethene, Vinyl Chloride, Benzene and Chlorobenzene

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal: [ ] Return To Client [ ] Disposal By Lab [X] Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: [ ] 24 Hours [ ] 48 Hours [ ] 7 Days [ ] 14 Days [ ] 21 Days [X] Other Standard TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: C. Verhoef	3/18/14	16:45	1. Received By: TA BUFFALO	3/19/14	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

#1 @ 3.9, 4.3

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Sterling Env. Eng. P.C.	Mark Millspaugh	3/18/14	247924
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
24 Wade Rd	(518) 456-4900		
City Latham	**State** NY	**Zip Code** 12110	**Site Contact** C. Verhoef	**Lab Contact** Lisa Shaffer
Project Name and Location (State) 20010 Ramapo	**Carrier/Waybill Number**	
Contract/Purchase Order/Quote No.		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: TKN, COD	Alkalinity	Hardness (CaCO3)	TAL Metals (1)	Site VOCs (2)
1-OS	3/18/14	16:05		X			1	1	2	3			X	X	X	X	X
3-OS/I	↓	11:00		↓			↓	↓	↓	↓			↓	↓	↓	↓	↓
4-OS		15:40															
5-OS		14:30															

Special Instructions/ Conditions of Receipt

(1) Reporting Limit for Antimony = 3.0 ppb or less and Thallium = 0.5 ppb or less

(2) Site VOCs 1,1-Dichloroethane, Vinyl Chloride, Benzene, and Chlorobenzene

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard TAT

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Mark Millspaugh Verhoef	3/18/14	16:45	1. Received By: TA BUFFALO	3/19/14	8900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

#1 2 & 3, 4, 5

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Sterling Environmental Engineering PC

Job Number: 480-56184-1

Login Number: 56184
List Number: 1
Creator: Stau, Brandon M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	sterling
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Sterling Environmental Engineering PC

Job Number: 480-56184-1

Login Number: 56254
List Number: 1
Creator: Stau, Brandon M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	sterling
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX C

HISTORICAL DATA TABLES

TABLE C-1
Historical Summary of Groundwater Quality Results - Aluminium (µ/L)
Town of Ramapo Landfill
ARAR Standard = None Listed
USEPA MCL = 50-200 (µ/L)
Part 5 MCL = Not Available

Well ID	Well 1-OS/I		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	45.4		**147**		14.8		**183**		**306**		46.5		29.8		26.3		35.5		29.1		24.4		25.5	
Sep-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
May-00	**10800**		**470**		**17800**		**770**		**382**		**268**		**6640**		**217**		**30800**			NA	**2900**		**2810**		**121**	B	49.5	B	**1270**		**62.2**	B	**1300**		**1440**		**212**		< 9.8		< 9.8		< 9.8		< 9.8		< 9.8		< 9.8	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
Dec-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
Mar-01	**20200**		**4990**		**20300**		**65.7**	B	**2030**		**829**		**2680**		31.7	B	**15400**			NA	**483**		**2790**	N	**61.5**	B,N	**591**	N	**17600**	N	**483**	N	**2310**	N	**12700**	N	**368**	N	< 10.4		< 10.4		<10.4		**113**	B	**237**		**150**	B
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
Oct-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
Mar-02	**13600**		**495**		**6050**		**3770**		**195**	B	**325**		**1410**		**164**	B		NA	**4150**		**6210**		**4440**		< 14.9		**1020**		**1470**		21.7	B	**487**		**1010**		< 14.9		< 14.9		< 14.9		< 14.9		< 14.9		< 14.9		< 14.9	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
Oct-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA																							
Apr-03		NA	48.5	B	**20300**		**1960**		**2740**		**1150**		**6950**		**255**			NA	**1350**		**1110**		**1240**			NA	**149**	B	**6820**		**54.2**	B	**968**		**2120**		35.8	B	< 15.8		< 15.8		< 15.8		< 15.8		< 15.8		< 15.8	
Mar-04		NA		NA	**8880**			NA	**3570**			NA	**1370**			NA	**98800**			NA		NA	**25000**			NA	47.7	B	**7040**		< 18.2		**311**		**965**		**286**		< 18.2		< 18.2		< 18.2		< 18.2		< 18.2		< 18.2	
Jun-05	**765**			NA	**1190**			NA	< 10.4			NA	**386**			NA		NA	**247**			NA	**1520**			NA	**735**		**184**	B	< 10.4		**291**		**173**	B	26.5	B	< 10.4		< 10.4		< 10.4		< 10.4		< 10.4		< 10.4	
Sep-06	**39000**			NA	**4500**			NA	**580**			NA	**2500**			NA	**230000**			NA		NA	**11000**			NA	**140**		**8700**		**1200**		**1000**		**12000**		**73**		**76**		**67**		**63**		**56**		37		14	
Oct-07	**47000**			NA	**12000**			NA	**520**			NA	**9800**			NA	**370**			NA		NA	**7900**			NA	**89**		**10000**		**66**		**4000**		**21000**		**140**		< 50		< 50		< 50		< 50		< 50		< 50	
Mar-09	**12000**			NA	**3200**			NA	**870**			NA	**3800**			NA	**65000**			NA		NA	**4000**			NA	< 100		**8300**		< 100		**3900**		**13000**		< 100		< 100		< 100		< 100			NA	< 100		< 100	
May-10	**14600**			NA	**3200**			NA	**629**			NA	**2350**			NA	**115000**			NA		NA	**15000**			NA	< 200		**5970**		< 200		**2430**		**18300**		**495**		< 200		< 200		< 200			NA	< 105		< 200	
Sep-11	**20100**		**280**		**2400**		**120**	J	**970**		**250**		**1200**			NA	**42500**		**1100**		**19900**		**12800**			NA	**110**	J	<200		<200		**3500**		**21900**		<200		<200		<200		<200		<200			NA		NA	
Nov-12	**12900**			NA	**1600**			NA	**170**	J		NA	**4400**			NA	**42000**			NA		NA	**8700**			NA	< 200		**230**		< 200		**520**		< 200		< 200		< 200		< 200		< 200		< 200		< 200			NA
Mar-14	**17500**			NA	**3100**			NA	**1700**			NA	**3000**			NA	**36300**			NA		NA	**17800**			NA		ND	180	J		ND	**1800**			ND		ND		ND		ND		ND		ND		ND		ND		ND

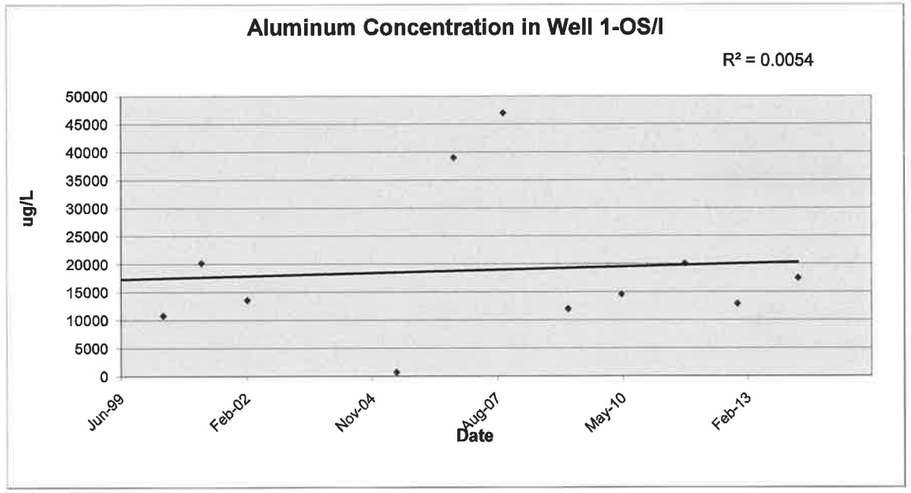
Notes:

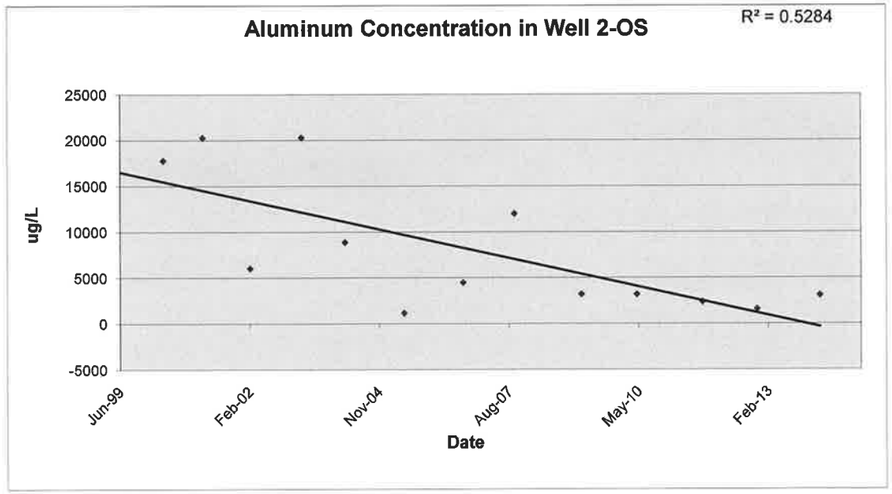
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

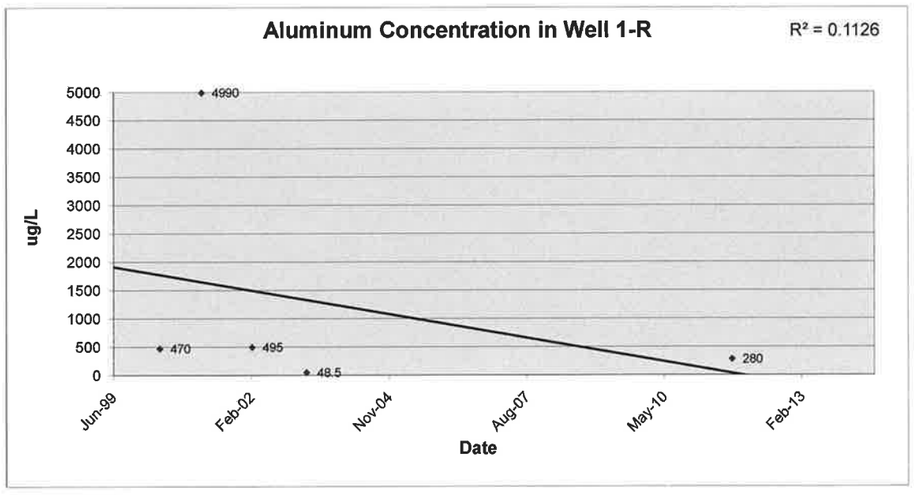
NA = Not Analyzed
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

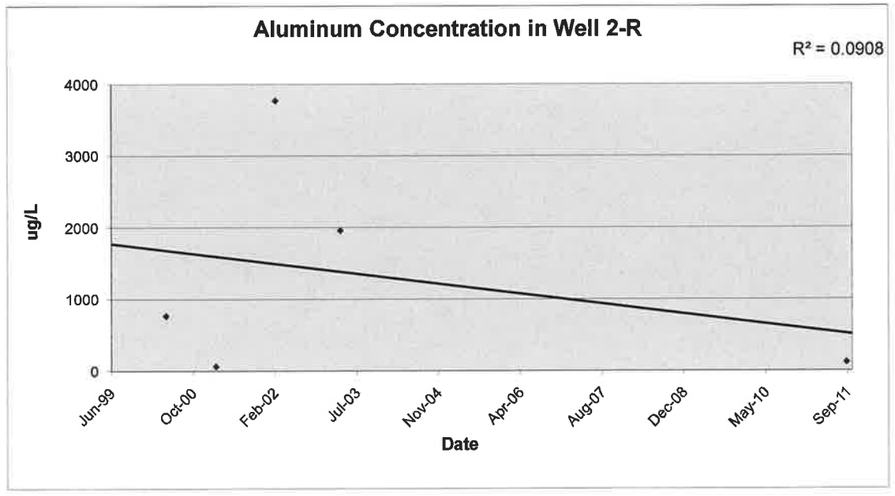
Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
N = Spiked sample recovery not within control limits.


Aluminum Concentration in Well 1-OS/I
R² = 0.0054
ug/L
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

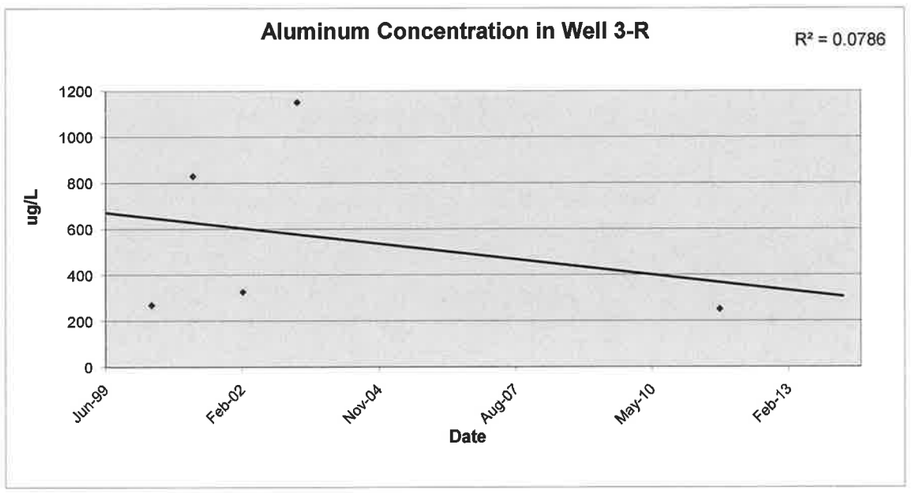

Aluminum Concentration in Well 2-OS
R² = 0.5284
ug/L
25000
20000
15000
10000
5000
0
-5000
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

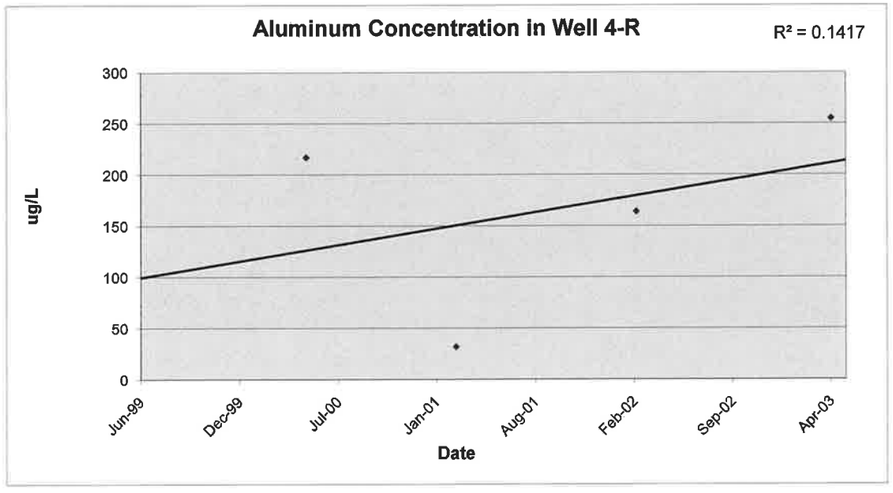

Aluminum Concentration in Well 1-R
R² = 0.1126
ug/L
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
4990
470
495
48.5
280
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

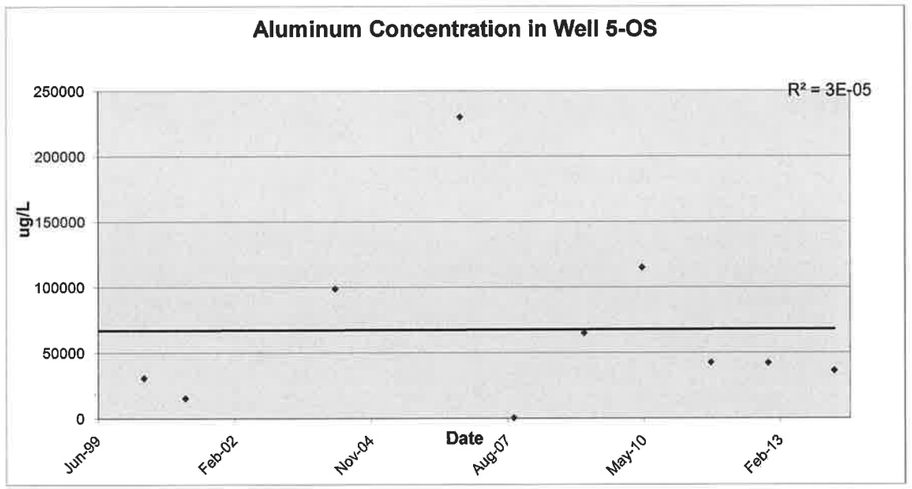

Aluminum Concentration in Well 2-R
R² = 0.0908
ug/L
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Date

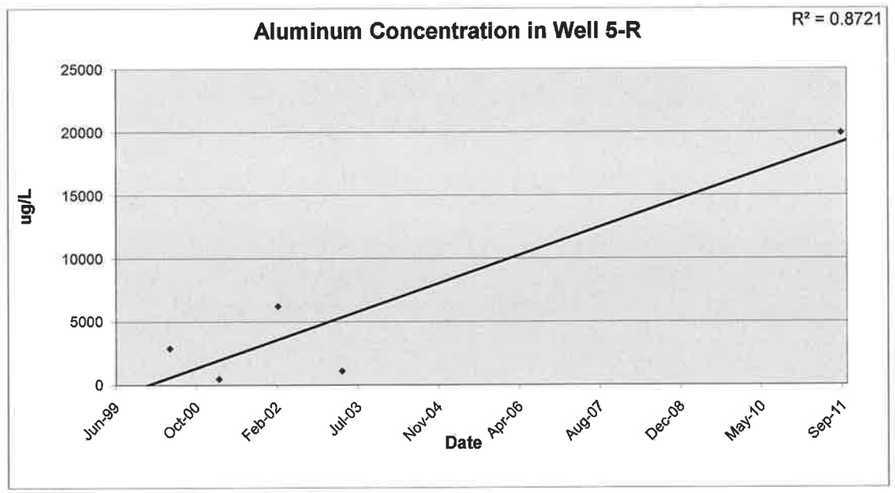
Aluminum Concentration in Well 3-OS/I
R² = 0.0384
ug/L
4000
3500
3000
2500
2000
1500
1000
500
0
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

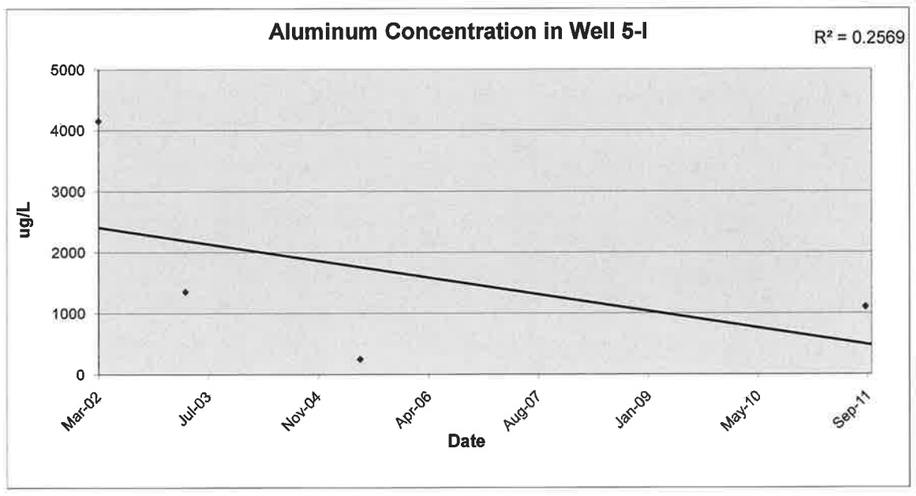
Aluminum Concentration in Well 4-OS
R² = 0.0103
ug/L
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

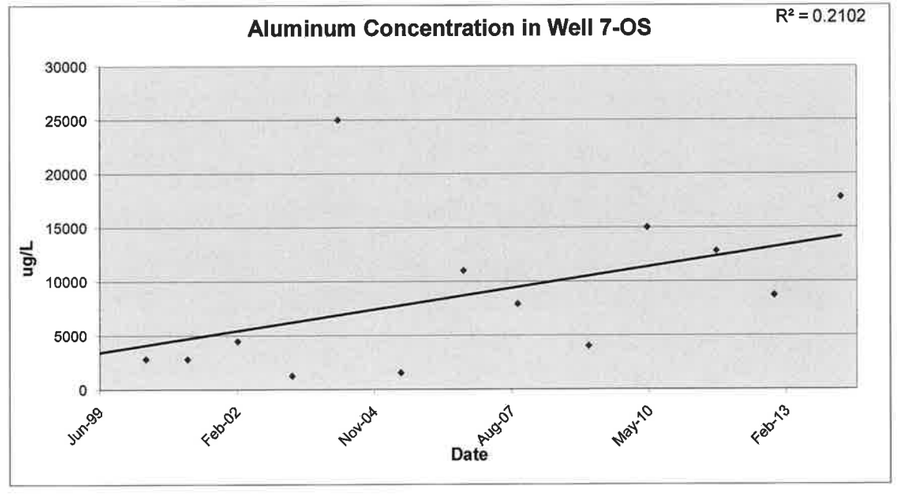

Aluminum Concentration in Well 3-R
R² = 0.0786
ug/L
1200
1000
800
600
400
200
0
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

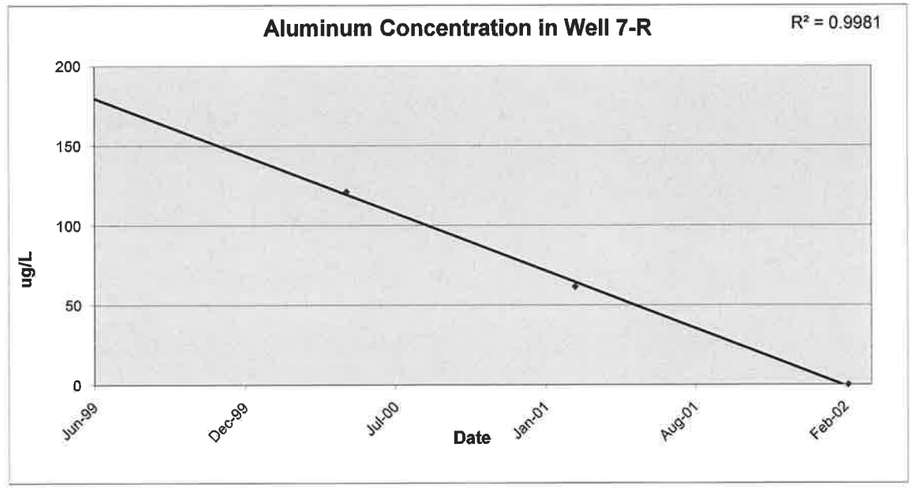

Aluminum Concentration in Well 4-R
R² = 0.1417
ug/L
300
250
200
150
100
50
0
Jun-99
Dec-99
Jul-00
Jan-01
Aug-01
Feb-02
Sep-02
Apr-03
Date

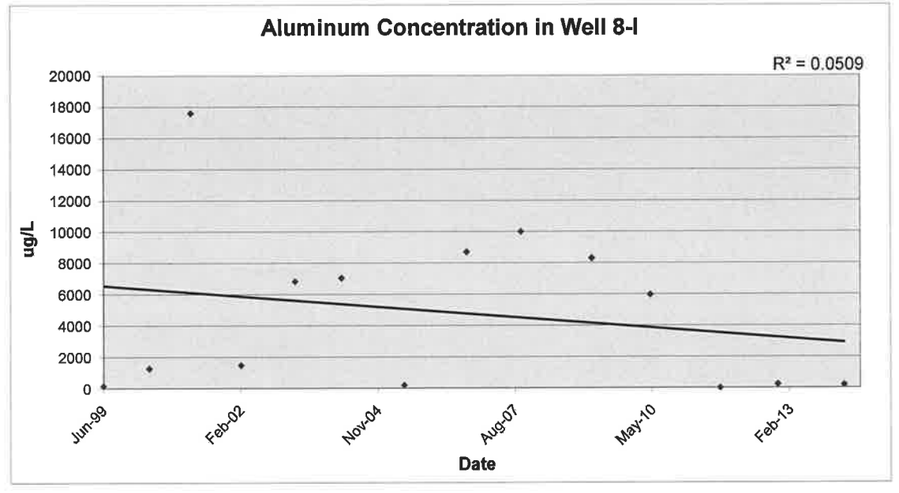

Aluminum Concentration in Well 5-OS
R² = 3E-05
250000
200000
150000
100000
50000
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

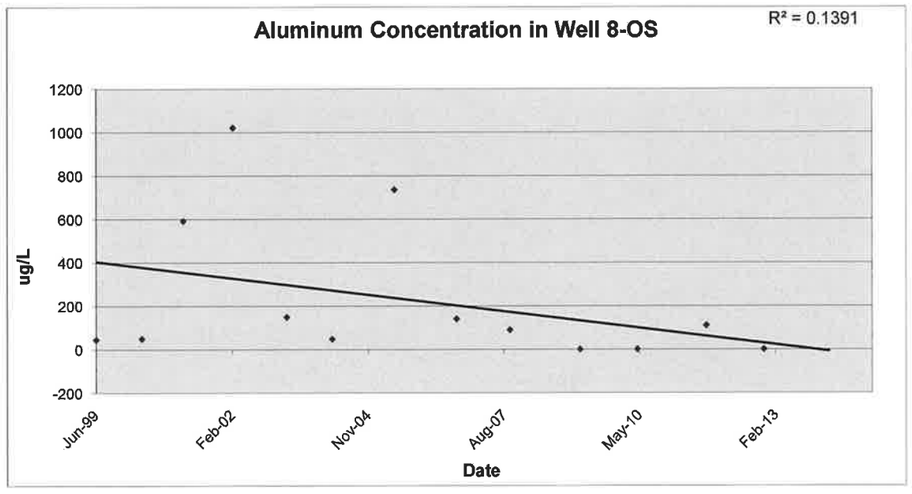

Aluminum Concentration in Well 5-R
R² = 0.8721
25000
20000
15000
10000
5000
0
ug/L
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Date

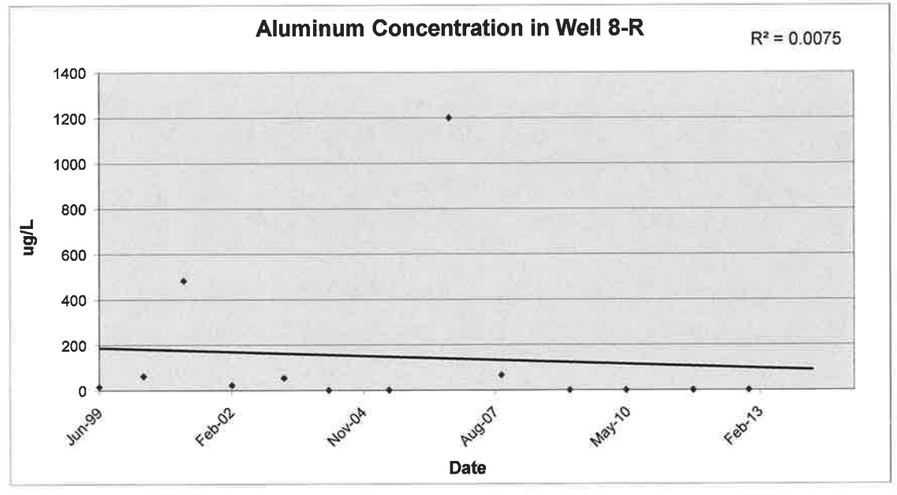

Aluminum Concentration in Well 5-I
R² = 0.2569
5000
4000
3000
2000
1000
0
ug/L
Mar-02
Jul-03
Nov-04
Apr-06
Aug-07
Jan-09
May-10
Sep-11
Date

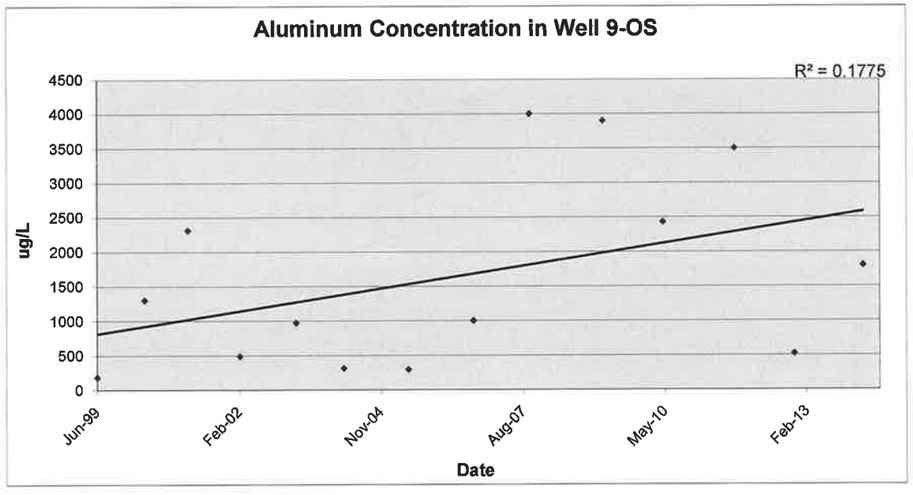

Aluminum Concentration in Well 7-OS
R² = 0.2102
30000
25000
20000
15000
10000
5000
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

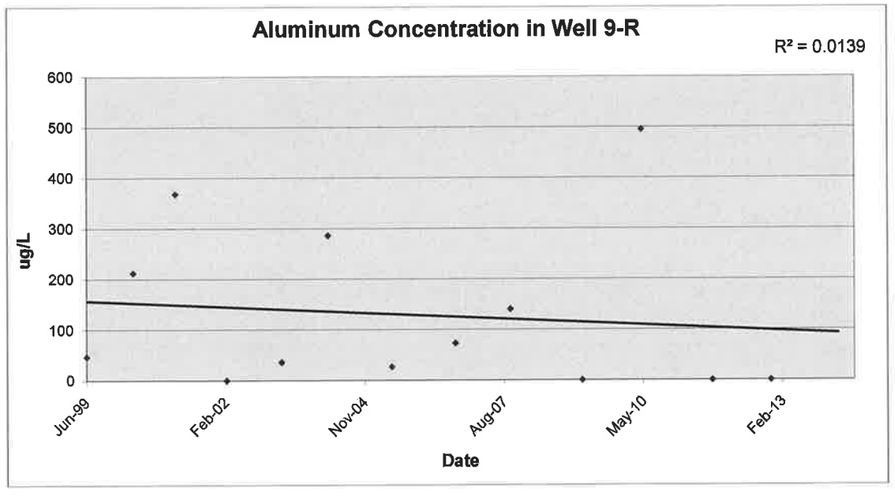

Aluminum Concentration in Well 7-R
R² = 0.9981
200
150
100
50
0
ug/L
Jun-99
Dec-99
Jul-00
Jan-01
Aug-01
Feb-02
Date

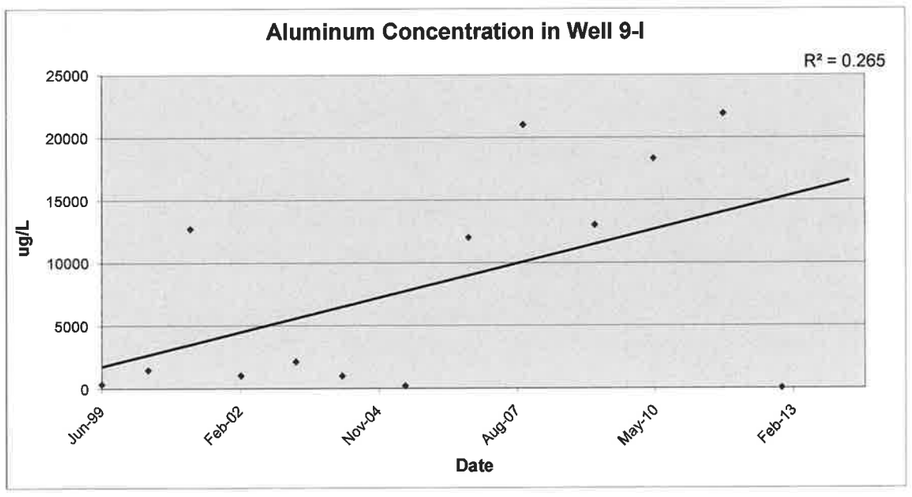

Aluminum Concentration in Well 8-I
R² = 0.0509
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date


Aluminum Concentration in Well 8-OS
R² = 0.1391
1200
1000
800
600
400
200
0
-200
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date


Aluminum Concentration in Well 8-R
R² = 0.0075
1400
1200
1000
800
600
400
200
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date


Aluminum Concentration in Well 9-OS
R² = 0.1775
4500
4000
3500
3000
2500
2000
1500
1000
500
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date


Aluminum Concentration in Well 9-R
R² = 0.0139
600
500
400
300
200
100
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date


Aluminum Concentration in Well 9-I
R² = 0.265
25000
20000
15000
10000
5000
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

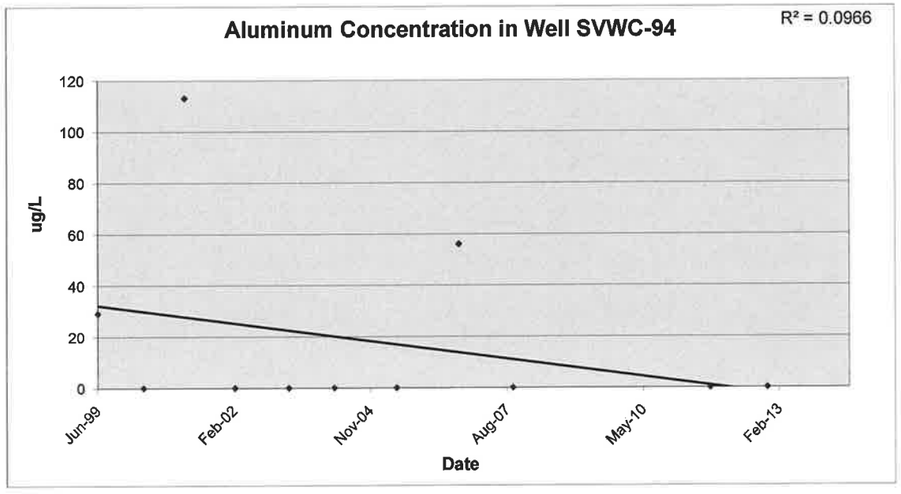

Aluminum Concentration in Well SVWC-94
R² = 0.0966
120
100
80
60
40
20
0
ug/L
Jun-99
Feb-02
Nov-04
Aug-07
May-10
Feb-13
Date

TABLE C-2
Historical Summary of Groundwater Quality Results - Berylium (µ/L)
Town of Ramapo Landfill
ARAR Standard = 3 (µ/L)
USEPA MCL = 4 (µ/L)
PART 5 MCL = 4 (µ/L)

Well ID	Well 1-OS/I		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	1.1			ND	1.4		1.3		1.4		1.3			ND		ND		ND		ND		ND		ND		ND
Sep-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
May-00	0.31	B	< 0.1		0.83	B	< 0.1		< 0.1		< 0.1		0.36	B	< 0.1		1.5	B		NA	< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		< 0.1		0.39	B	< 0.1		< 0.1		< 0.1	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Dec-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-01	1.1	B	0.26	B	0.88	B	< 0.2		< 0.2		< 0.2		< 0.2		< 0.2		0.97	B		NA	0.52	B	0.24	B	< 0.2		0.32	B	1.1	B	< 0.2		0.42	B	1.2	B	0.87	B	< 0.2		< 0.2		< 0.2		< 0.2		< 0.2		< 0.2		< 0.2	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-02	1.2	B	< 0.35		0.44	B	< 0.35		< 0.35		< 0.35		< 0.35		< 0.35			NA	< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35		< 0.35	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Apr-03		NA	< 0.2		1	B	< 0.2		< 0.2		< 0.2		0.38	B	< 0.2			NA	< 0.2		< 0.2		< 0.2			NA	< 0.2		0.41	B	< 0.2		< 0.2		< 0.2		< 0.2		< 0.2		0.25	B	< 0.2		< 0.2		< 0.2		< 0.2	
Mar-04		NA		NA	0.5	B		NA	< 0.3			NA	< 0.4			NA	**4.9**			NA	< 0.3		< 0.3			NA	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		0.38	B	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3	
Jun-05	< 0.4			NA	< 0.4			NA	< 0.4			NA	< 0.4			NA			< 0.4			NA	< 0.4			NA	0.51	B	< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4	
Sep-06	2.2	J		NA	0.44	J		NA	0.23	J		NA	0.43	J		NA	**13**			NA	0.73	J		NA	0.16	J	0.66	J	0.28	J	0.14	J	0.77	J	< 1		< 3		0.12	J	0.14	J	< 3		< 3		< 3		< 3	
Oct-07	2.6	J		NA	0.66	J		NA	0.1	J		NA	0.6	J		NA	< 3			NA	0.51	J		NA	< 3		0.67	J	< 3		0.34	J	1.2	J	0.1	J	< 3		< 3		< 3		< 3		< 3		< 3		< 3	
Mar-09	0.61	J		NA	< 3			NA	< 3			NA	< 3			NA	**3.2**			NA	0.24	J		NA	< 3		0.46	J	< 3		0.25	J	0.71	J	< 3		< 3		< 3		< 3			NA	< 3		< 3		< 3	
May-10	0.7	J		NA	0.2	J		NA	< 2			NA	0.2	J		NA	**5.5**			NA	0.7	J		NA	< 2		0.4	J	< 2		< 2		0.9	J	< 2		< 2		< 2		< 2			NA	< 2		< 2		< 2	
Sep-11	0.94	J	< 2		< 2		< 2		< 2		< 2		< 2			NA	2.4		< 2		1.4	J	0.6	J		NA	< 2		< 2		< 2		< 2		1.8	J	< 2		< 2		< 2		< 2		< 2			NA		NA		NA
Nov-12	0.67	J		NA	<2			NA	< 2			NA	<2			NA	2.1			NA			0.47	J		NA	< 2		< 2		< 2		< 2		< 2		< 2		< 2		< 2		< 2		< 2			NA	< 2			NA
Mar-14	0.48	J			<2				<2				<2				1.9	J					0.56	J			< 2		< 2		< 2		< 2		< 2		<2		< 2		< 2		< 2		< 2		< 2		< 2	

Notes:

Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

S:\Sterling\Projects\2000 Projects\Town of Ramapo - 20010\Reports\2014 PCM Report\Tables

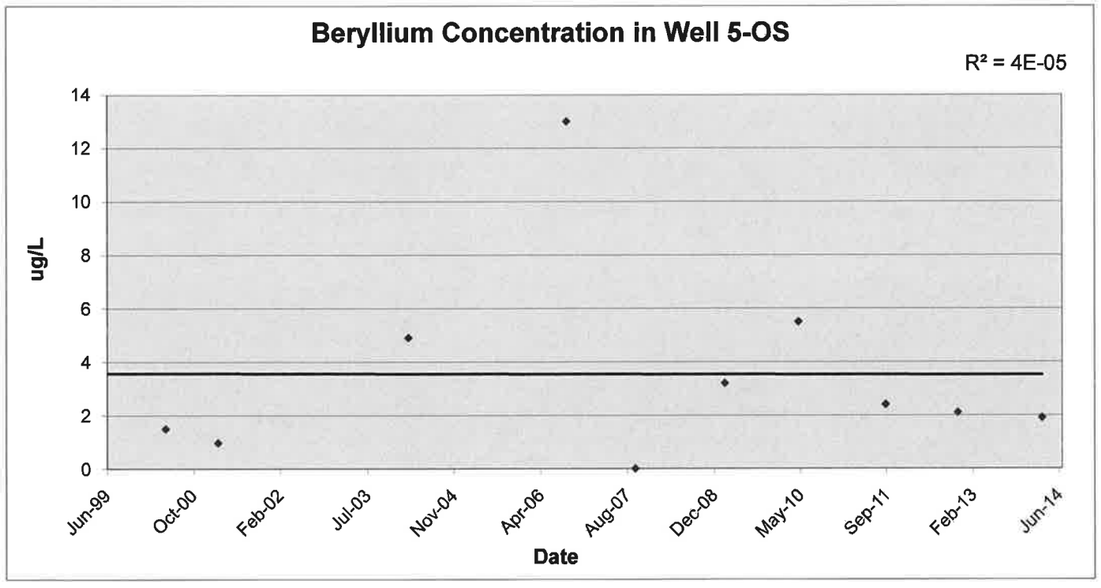

Beryllium Concentration in Well 5-OS
R² = 4E-05
ug/L
14
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

TABLE C-3
Historical Summary of Groundwater Quality Results - Cadmium (µ/L)
Town of Ramapo Landfill
ARAR Standard = 5 (µ/L)
USEPA MCL = 5 (µ/L)
Part 5 MCL = 5 (µ/L)

Well ID	Well 1-OS/I		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		ND		ND		ND		ND	1.3		3			ND		ND		ND		ND		ND		ND	
Sep-99		ND		ND		ND		ND		ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND	3.8		**24.2**			ND		ND		NA		NA		NA		NA	
May-00	0.92	B	0.61	B	2.4		< 0.4		< 0.4		< 0.4		0.45	B	< 0.4		1.3	B		NA	1.4	B	< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		< 0.4		**9.4**		< 0.4		< 0.4		0.61	B	< 0.4		< 0.4		< 0.4	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Dec-00	< 3.1		< 3.1		< 3.1		< 3.1		< 3.1		< 3.1		< 3.1		< 3.1		3.4	B		NA	< 3.1		< 3.1		< 3.1		< 3.1		< 3.1		< 3.1	NA		NA		NA	< 3.1	NA	< 3.1		< 3.1		< 3.1		< 3.1		< 3.1		< 3.1	
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		ND		ND		ND	0.81	B	< 0.3		0.88	B	< 3			NA		NA		NA		NA		NA	
Mar-01	1.2	B	< 0.3		1.3	B	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		0.31	B		NA	0.42	B	< 0.3		< 0.3		0.4	B	1.2	B	0.35	B	0.42	B	0.9	B	1.7	B	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	0.91	B	0.68	B	< 0.3		< 0.3		< 0.3	0.37	B	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3	
Oct-01	< 0.3		< 0.3		1.1	B	0.36	B	< 0.3		< 0.3		< 0.3		< 0.3			NA	0.84	B	< 0.3		0.37	B	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3			NA		NA		NA		NA	
Mar-02	< 0.26		< 0.26		< 0.26		0.66	B	< 0.26		< 0.26		< 0.26		< 0.26			NA	< 0.26		0.45	B	< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26		< 0.26	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		2.4	B	< 0.48		< 0.48		< 0.48	
Oct-02	< 0.48		1.5	B	< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48			NA	< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48		< 0.48	
Apr-03		NA	< 0.3		1.7	B	< 0.3		1.2	B	< 0.3		0.33	B	< 0.3			NA	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		0.55	B	< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3		< 0.3	
Mar-04		NA		NA	< 0.4			NA	0.58			NA	< 0.4			NA	< 0.4			NA		NA	2.1	B		NA	0.42	B	< 0.4		< 0.4		< 0.4		0.9	B	0.88	B	< 0.4		< 0.4		0.52	B	< 0.4		< 0.4	
Jun-05	< 0.8			NA	< 0.8			NA	1.6	B		NA	< 0.8			NA		NA	< 0.8			NA	< 0.8	N		NA	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N	< 0.8	N
Sep-06	4.3			NA	1.6			NA	3.2			NA	2.2			NA	**11**			NA		NA	1			NA	0.92	J	1.5		1.2		0.67	J	0.73	J	0.53	J	0.53	J	0.62	J	0.59	J	< 1		< 1		< 1	
Oct-07	< 1			NA	< 1			NA	< 1			NA	< 1			NA	< 1			NA		NA	< 1			NA	< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Mar-09	< 5			NA	< 5			NA	< 5			NA	< 5			NA	< 5			NA		NA	< 5			NA	< 5		< 5		< 5		< 5		< 5		< 5		< 5		< 5			NA	< 5		< 5	
May-10	< 1			NA	< 1			NA	< 1			NA	< 1			NA	< 5	D02		NA		NA	< 1			NA	< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Sep-11	0.67	J	< 1		< 1		< 1		0.47	J	0.61	J	< 1			NA	0.42	J	< 1		2.2		< 1			NA	< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1			NA		NA
Nov-14	<1				< 1			NA	<1			NA	< 1			NA	0.69			NA		NA	< 1			NA	< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1			NA
Mar-14	0.66	J			< 1				< 1			NA	< 1			NA	< 1			NA		NA	< 1			NA	< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1		< 1	

Notes:

Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
D02 = Dilution required due to sample matrix effects.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

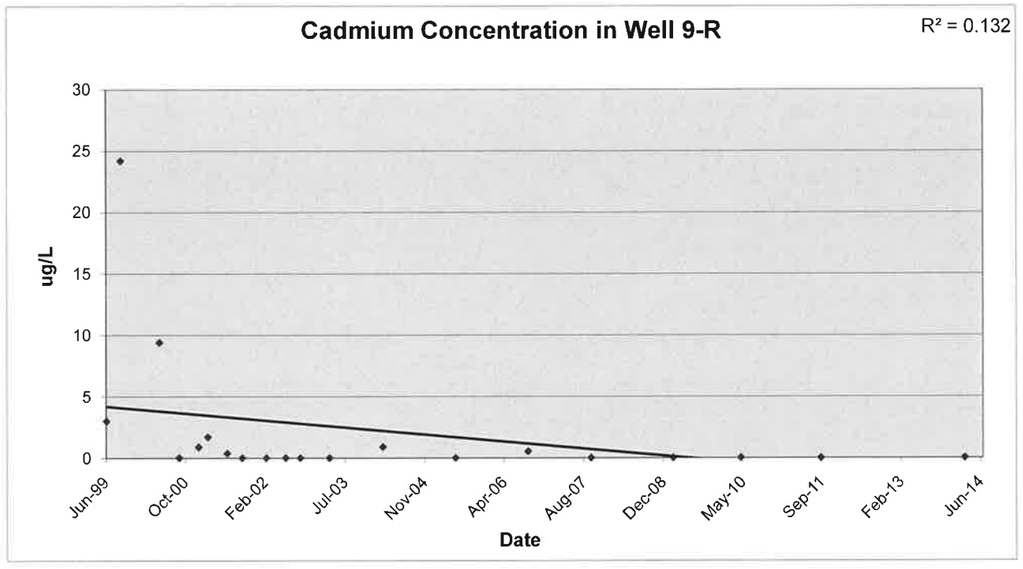

Cadmium Concentration in Well 9-R
R² = 0.132
ug/L
30
25
20
15
10
5
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-4
Historical Summary of Groundwater Quality Results - Copper (µg/L)
Town of Ramapo Landfill
ARAR Standard = 200 (µ/L)
MCL Guidance = 1,000 (µ/L) *
Part 5 MCL = Not Available

Well ID	Well 1-OS/I		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	12		37.2		12.7		9.5		10		12.8		97.2		29.1		25.8		32.3		25.8		29.1	
Sep-99	104		10.6		23.4			ND	7.8		23.8		79.8		17.3			NA	6		10.1	B	34.5		5.8		7.2		18.2		23.5			ND	8.7		19.1		39.7		7.5			NA		NA		NA		NA
May-00	68		6.8	B	56.9		6.3	B	13.5	B	5.2	B	19.1	B	< 2		53.9			NA	9.2	B	10.8	B	4.4	B	2.1	B	3.4	B	5.4	B	< 2		3.1	B	3.9	B	99.1		18.6	B	3.1	B	5.6	B	3.5	B	4	B
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	18.1	B	18.5	B	22.9	B	< 2.1		3.4	B	5	B	173		39.6		3.2	B	4.9	B	< 2.1		5.1	B
Dec-00	49.3		5	B	45.1		15.4	B	10	B	8.2	B	15.8	B	3.5	B	142			NA	6.6	B	24.5	B	4.9	B	11.7	B	30.4		26.2			NA		NA		NA		NA	19.4	B	10.3	B	7.1	B	7	B	17.8	B
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	6.3	B	3.4	B	2.7	B	52.7			NA		NA		NA		NA		NA
Mar-01	75		36.9		57.3		< 1.6		10.2	B	4.6	B	8.3	B	< 1.6		26.2			NA	3.2	B	8	B	< 1.6		5.3	B	53.8		29.9		4.3	B	29.5		3.1	B	59.1		7.2	B	1.7	B	7	B	4.2	B	2.8	B
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	3.3	B	20.3	B	9.5	B	2.4	B	3.4	B	4.3	B	53.6		21.3	B	3.9	B	4.1	B	2.7	B	4	B
Oct-01	22.2	B	15.4	B	39		1.9	B	8	B	2.4	B	5.2	B	3.4	B		NA	21.8	B	5.6	B	25.9		7.1	B	5.9	B	< 1.6		4.6	B	8.9	B	4	B	< 1.6		64.9		80.6			NA		NA		NA		NA
Mar-02	47.4		17.1	B	16.5	B	19.2	B	5	B	< 3		< 3		< 3			NA	5	B	23.9	B	7.8	B	< 3		< 3		< 3		< 3		< 3		< 3		< 3		57.6		17.8	B	< 3		3.6	B	6.8	B	8.2	B
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 6.9		15.8	B	8.1	B	< 6.9		< 6.9		< 6.9		121		13	B	< 6.9		< 6.9		< 6.9		< 6.9	
Oct-02	86.3		20.4	B	83.4		< 6.9		31.6		8.8	B	45.4		< 6.9			NA	< 6.9		< 6.9		39.5			NA	12.9	B	14.1	B	22	B	< 6.9		< 6.9		< 6.9		50.6		18.4	B	< 6.9		< 6.9		7.9	B	< 6.9	
Apr-03		NA	3.6	B	55.3		11.3	B	59.9		5.3	B	17.6	B	3.1	B		NA	4.2	B	5.6	B	4.4	B		NA	3	B	18.6	B	4.6	B	< 2.8		5.3	B	< 2.8		58.7		13.9	B	6.4	B	4.4	B	4	B	3.6	B
Mar-04		NA		NA	25.4			NA	13.7	B		NA	7.4	B		NA	183			NA		NA	51.6			NA	1.7	B	14.2	B	1.8	B	< 1.6		2.8	B	2.2	B	59.5		17.4	B	10.6	B	9.8	B	5.6	B	5.4	B
Jun-05	25.9			NA	15.9	B		NA	51.8			NA	4.2	B		NA		NA	2.9	B		NA	5.2	B		NA	32.1		< 1.2		3	B	< 1.2		< 1.2		< 1.2		83.4		197		3.9	B	5.4	B	3	B	3.9	B
Sep-06	130			NA	15			NA	69			NA	10			NA	**500**			NA		NA	28			NA	2	J	23		84		3.6	J	27		< 10		69		50		7.6	J	7	J	6.1	J	6.8	J
Oct-07	140			NA	35			NA	27			NA	23			NA	< 10			NA		NA	18			NA	< 10		29		2.9	J	14		44		< 10		60		200		8	J	12		4.4	J	4.3	J
Mar-09	33			NA	21			NA	44			NA	11			NA	110			NA		NA	10			NA	11		27		5	J	16		27		< 10		100		61		3.9	J		NA	5.4	J	6.3	J
May-10	57.6			NA	36			NA	21.1			NA	7.4	J		NA	**202**			NA		NA	30.9			NA	1.7	J	12.4		< 10	J	7.2	J	33	B	< 10		117		53.4		19.3			NA	11.2		8.5	J
Sep-11	160		15		34		1.8	J	200		34		4.2	J		NA	72		2.9	J	53		32			NA	9.2	J	< 10		< 10		6.7	J	48		< 10		87		16		4.6	J	3.9	J		NA		NA
Nov-12	48			NA	11			NA	55			NA	14			NA	85			NA		NA	27			NA		ND		ND		ND	ND			ND		250		26		3.1	J	5.4	J	4.1			NA
Mar-14	90			NA	34			NA	28			NA	12			NA	66			NA		NA	39			NA	2.6	J	2.4	J	4	J	3.8	J		ND		ND	160		63		7.9	J	8	J	11		8.1	J

Notes:

Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

* USEPA National Secondary Drinking Water Regulation
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

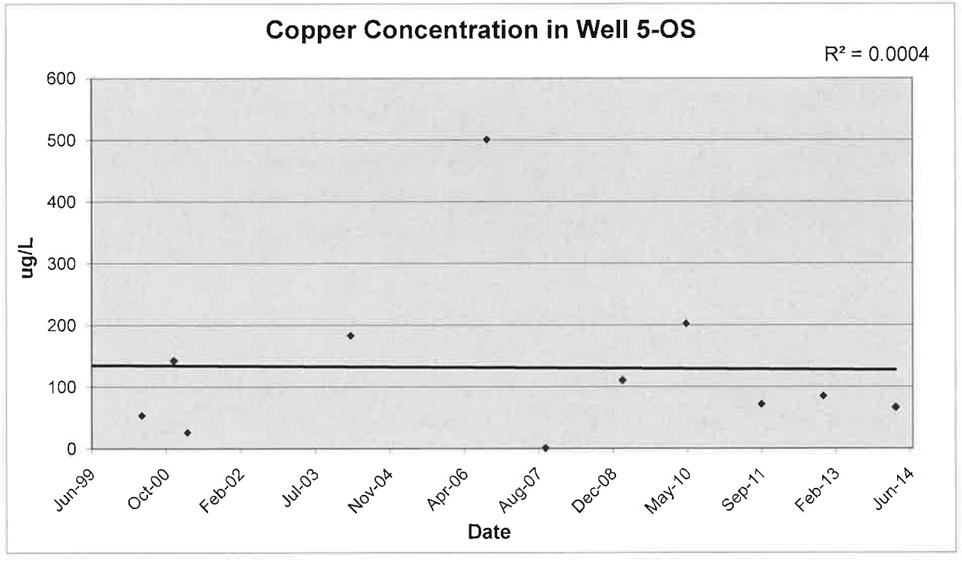

Copper Concentration in Well 5-OS
R² = 0.0004
600
500
400
300
200
100
0
ug/L
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

TABLE C-5
Historical Summary of Groundwater Quality Results - Antimony (µ/L)
Town of Ramapo Landfill
ARAR Standard = 3 (µ/L)
USEPA MCL = 6 (µ/L)
Part 5 MCL = 6 (µ/L)

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		ND		ND		ND		ND	ND			ND		ND		ND		ND		ND		ND
Sep-99		ND		ND		ND		ND		ND		ND		ND		NA		ND		ND		ND		ND		ND		ND		ND		ND	ND			ND		ND		NA		NA		NA
May-00	**29.1**	B	< 3.4		< 3.4		< 3.4		**4.8**	B	< 3.4		< 3.4		< 3.4		< 3.4		NA	< 3.4		< 3.4		< 3.4		< 3.4		< 3.4		< 3.4		< 3.4				< 3.4		< 3.4		< 3.4		< 3.4		< 3.4		< 3.4	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 11.0		< 5.5		< 5.5		< 5.5				< 5.5		< 5.5		< 5.5		< 5.5		< 5.5		< 5.5	
Dec-00	< 5.5		< 5.5		< 5.5	N	< 5.5		**8.2**	B, N	< 5.5	N	< 5.5	N	< 5.5	N	< 5.5	N		NA	< 5.5	N	< 5.5	N	< 5.5	N	< 5.5	N	< 5.5	N	< 5.5	N		NA	NA			NA	< 5.5	N	< 5.5	N	< 5.5	N	< 5.5	N	< 5.5	N
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 4.7				< 4.7			NA		NA		NA		NA		NA
Mar-01	< 4.7	N	< 4.7		< 4.7		< 4.7		**9.5**	B, N	< 4.7		< 4.7		< 4.7		< 4.7			NA	< 4.7		< 4.7		< 4.7		< 4.7		< 4.7		< 4.7		< 4.7				< 4.7		< 4.7		< 4.7		< 4.7		< 4.7		< 4.7	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 4.7		< 4.7		< 4.7		< 4.7				< 4.7		< 4.7		< 4.7		< 4.7		< 4.7		
Oct-01	< 4.7		< 4.7		< 4.7		< 4.7		**9.4**	B	< 4.7		< 4.7		< 4.7			NA	< 4.7		< 4.7		< 4.7		< 4.7		< 4.7		< 4.7		< 4.7		< 4.7				< 4.7		< 4.7			NA		NA		NA		NA
Mar-02	**12.7**	B	**10.5**	B	**14**	B	**13.8**	B	**15.1**	B	**11.9**	B	< 7.4		**9.7**	B		NA	< 7.4		< 7.4		**13.2**	B	**13**	B	< 7.4		**10.9**	B	**12**	B	< 7.4				< 7.4		**9.3**	B	**8**	B	**11.4**	B	< 7.4		< 7.4	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 5.3		< 5.3		< 5.3		< 5.3				< 5.3		< 5.3		**8.1**	B	< 5.3		< 5.3		< 5.3	
Oct-02	**15**	B,N	**5.6**	B, N	**33**	B, N	< 5.3	N	**25.4**	B, N	**5.5**	B, N	< 5.3	N	< 5.3	N		NA	< 5.3	N	< 5.3	N	< 5.3	N		NA	< 5.3	N	< 5.3	N	**6.3**	B, N	< 5.3	N	N		< 5.3	N	< 5.3	N	**17.2**	B, N	**5.5**	B, N	< 5.3	N	< 5.3	N
Apr-03		NA	< 5		< 5		< 5		**77.6**		< 5		< 5		< 5			NA	< 5		< 5		< 5			NA	< 5		< 5		< 5		< 5				< 5		**9.3**	B	< 5		< 5		< 5		< 5	
Mar-04		NA		NA	< 7.1			NA	< 5.8			NA	< 7.1			NA	< 7.1			NA			NA			NA	< 5.8		< 5.8		< 5.8		< 5.8				< 5.8		< 5.8		< 5.8		< 5.8		< 5.8	
Jun-05	<0.12			NA	< 0.12			NA	< 0.12			NA	< 0.12			NA		NA	< 0.12			NA	< 0.12			NA	0.13	B	< 0.12		< 0.12		0.15	B			< 0.12		< 0.12		0.14	B	< 0.12		< 0.12		< 0.12	
Sep-06	<3			NA	< 3			NA	< 3			NA	< 3			NA	< 3			NA	< 3		< 3			NA	< 3		< 3		< 3		< 3				< 3		< 3		< 3		< 3		< 3		< 3	
Oct-07	**9.6**			NA	2.4 J			NA	**8.4**			NA	1.8 J			NA	< 3			NA	< 3		< 3			NA	< 3		< 3		< 3		2 J				< 3		< 3		< 3		< 3		< 3		< 3	
Mar-09	<60			NA	< 60			NA	< 60			NA	< 60			NA	< 60			NA	< 60		< 60			NA	< 60		< 60		< 60		< 60				< 60		< 60		< 60			NA	< 60		< 60	
May-10	**3.8**			NA	< 3			NA	< 3			NA	< 3			NA	< 5	D14		NA			NA			NA	< 3		< 3		< 3		< 3				< 3		< 3		< 3			NA	< 3		< 3	
Sep-11	**8.3**		0.67	J	0.4	J	< 3		0.82	J	< 15		0.24	J		NA	< 3		< 3		0.41	J	0.2	J		NA	< 3		< 3		< 3		0.15	J			< 3		< 3				< 3			NA		NA
Nov-12	3.0			NA	0.3	J		NA	< 3			NA	< 3			NA	< 3			NA			NA	< 3		NA	< 3		< 3		< 3		0.24	J	< 3		< 3		< 3		< 3				< 3			NA
Mar-14	< 3			NA	< 3			NA	< 3			NA	< 3			NA	< 3			NA			NA	< 3		NA	< 3		< 3		< 3		< 3		< 3		< 3		< 3		< 3		< 3		< 3	

Notes:

Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
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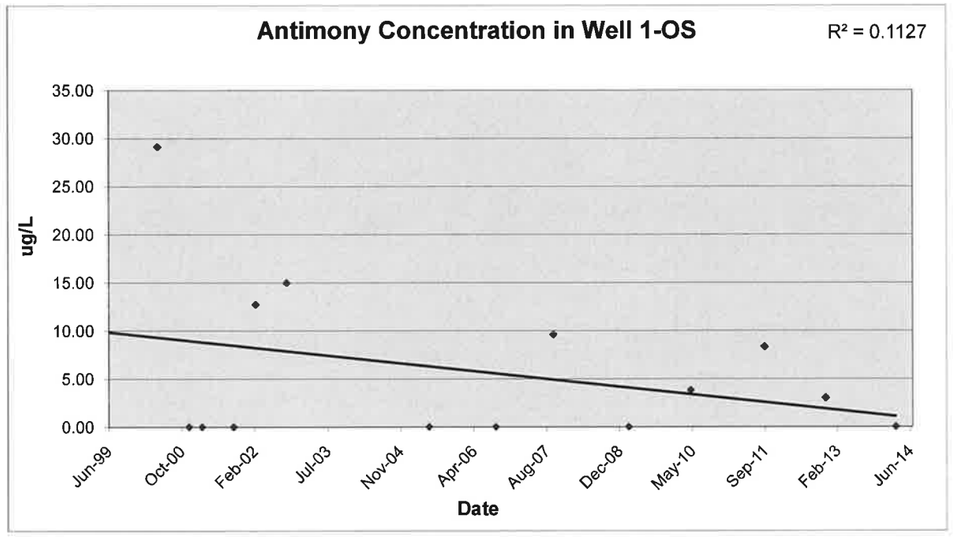
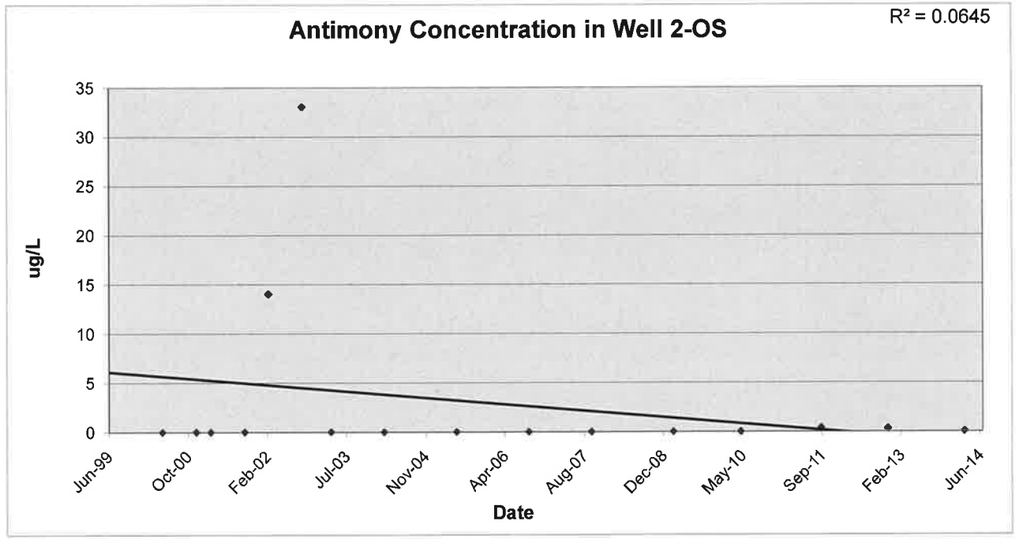
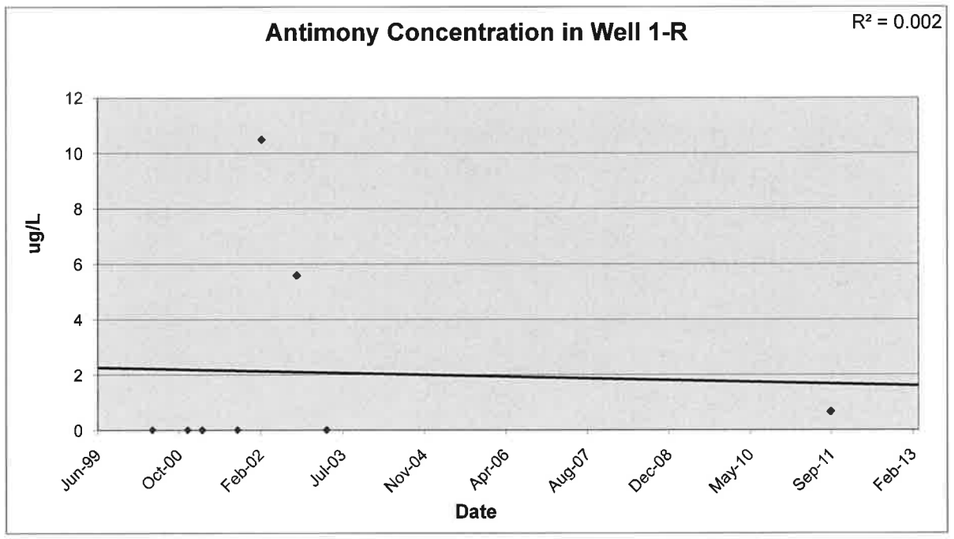
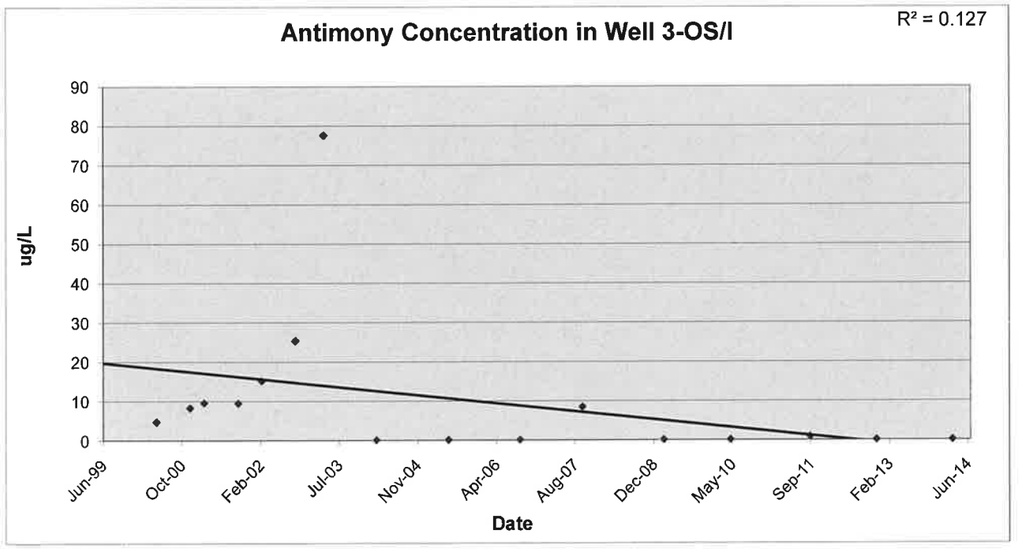
Laboratory Qualifier Definitions

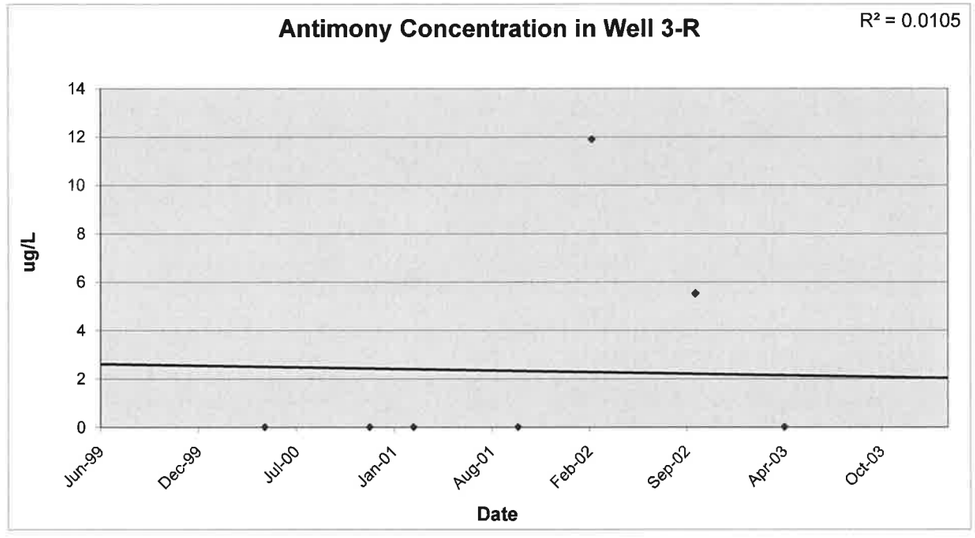
B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

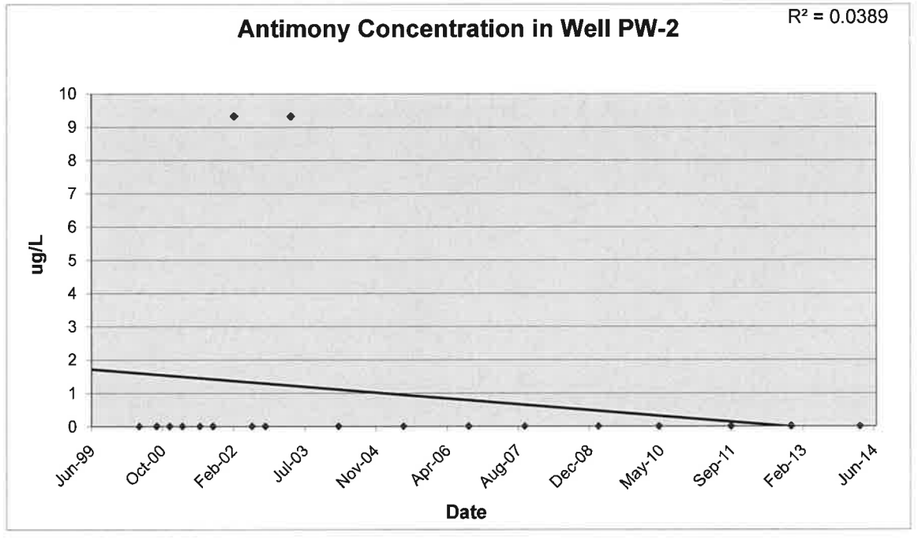

Antimony Concentration in Well 1-OS
R² = 0.1127
ug/L
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

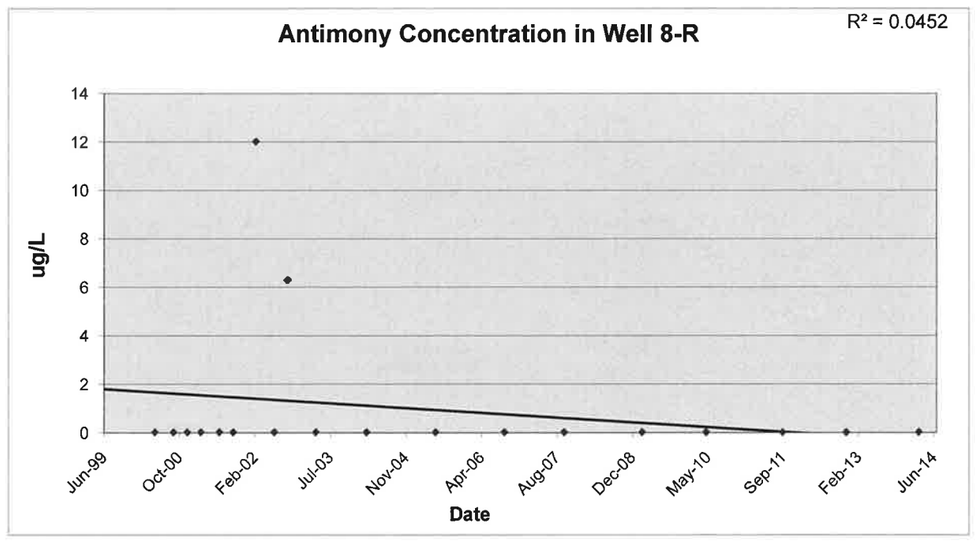

Antimony Concentration in Well 2-OS
R² = 0.0645
ug/L
35
30
25
20
15
10
5
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

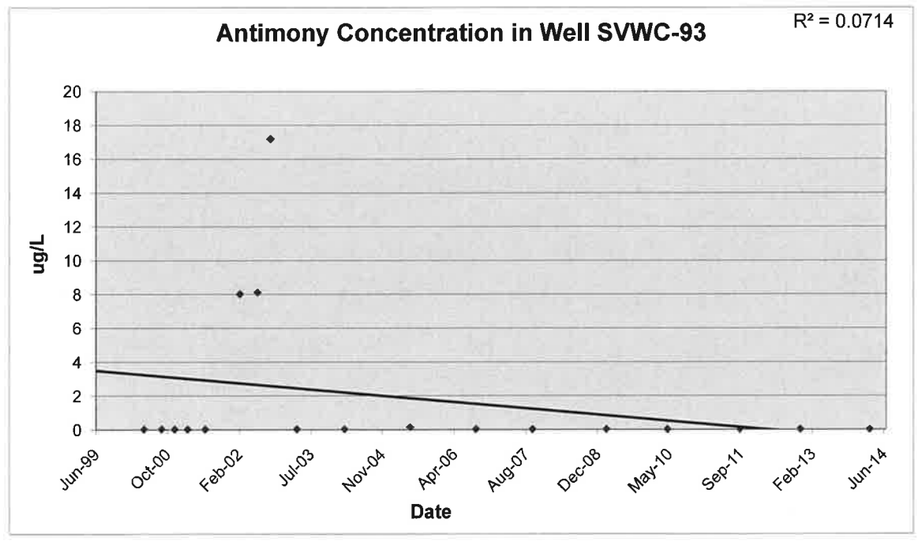

Antimony Concentration in Well 1-R
R² = 0.002
ug/L
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date


Antimony Concentration in Well 3-OS/I
R² = 0.127
ug/L
90
80
70
60
50
40
30
20
10
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Antimony Concentration in Well 3-R
R² = 0.0105
ug/L
14
12
10
8
6
4
2
0
Jun-99
Dec-99
Jul-00
Jan-01
Aug-01
Feb-02
Sep-02
Apr-03
Oct-03
Date


Antimony Concentration in Well PW-2
R² = 0.0389
ug/L
10
9
8
7
6
5
4
3
2
1
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Antimony Concentration in Well 8-R
R² = 0.0452
ug/L
14
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Antimony Concentration in Well SVWC-93
R² = 0.0714
ug/L
20
18
16
14
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

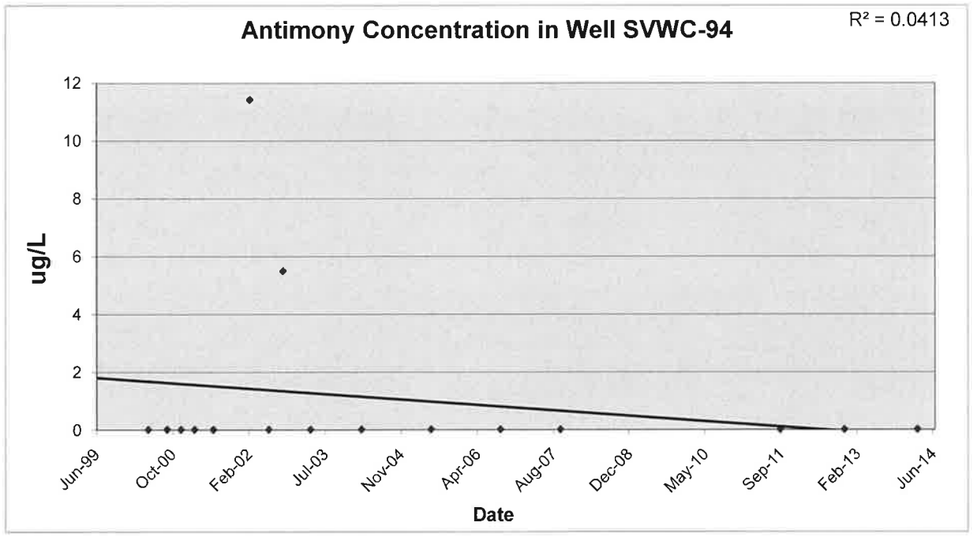

Antimony Concentration in Well SVWC-94
R² = 0.0413
ug/L
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

TABLE C-6
Historical Summary of Groundwater Quality Results - Arsenic (µ/L)
Town of Ramapo Landfill
ARAR Standard = 25 (µ/L)
USEPA MCL = 10 (µ/L)
Part 5 MCL = 10 (µ/L)

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	11.7			ND		ND		ND		ND	9.7		7.1			ND		ND		ND		ND
Sep-99	11.4			ND		ND		ND		ND	7.9		8.5			ND		NA		ND		ND		ND		ND		ND	6.2			ND		ND		ND		ND		ND		NA		NA		NA		NA
May-00	7.3	B	< 2.6		6.6	B	< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		3.2	B		NA	< 2.6		< 2.6		< 2.6		< 2.6		6.6	B	< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	13.9	B	11.8		< 1.8		< 1.8		< 1.8		7.7	B	< 1.8		< 1.8		< 1.8		< 1.8		< 1.8	
Dec-00	11.8		< 1.8		9.4	B	< 1.8		< 1.8		< 1.8		< 1.8		3.3	B	16.8			NA	< 1.8		3.4	B	< 1.8		2.6	B	10	B	< 1.8			NA		NA		NA	< 1.8		< 1.8		< 1.8		< 1.8		< 1.8	
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	NA	< 2.2		< 2.2		3	B	< 2.2			NA		NA		NA		NA
Mar-01	13.5		3.7	B	10.5		< 2.2		< 2.2		< 2.2		2.6	B	< 2.2		3.9	B		NA	< 2.2		< 2.2		< 2.2		2.6	B	13.4		< 2.2		< 2.2		5.8	B	6.3	B	< 2.2		< 2.2		< 2.2		< 2.2		< 2.2	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 2.2		10.5		< 2.2		< 2.2		< 2.2		3.7	B	< 2.2		< 2.2		< 2.2		< 2.2		< 2.2	
Oct-01	5.9	B	2.6	B	8.4	B	< 2.2		< 2.2		< 2.2		< 2.2		< 2.2			NA	2.7	B	< 2.2		2.6	B	< 2.2		2.4	B	6.9	B	< 2.2		< 2.2		< 2.2		4	B	< 2.2		< 2.2			NA		NA		NA		NA
Mar-02	9.1	B	< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6			NA	< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		9.7	B	3.4	B	< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	3.9	B	10.2		2.7	B	< 2.6		< 2.6		5.5	B	< 2.6		< 2.6		< 2.6		< 2.6		< 2.6	
Oct-02	**91.3**		4	B	13.3		< 2.6		< 2.6		< 2.6		7.5	B	< 2.6			NA	< 2.6		< 2.6		5.2	B		NA	< 2.6		5.2	B	< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6		< 2.6	
Apr-03		NA	< 2.4		10.3		< 2.4		5.4	B	< 2.4		4	B	4.4	B		NA	< 2.4		< 2.4		< 2.4			NA	< 2.4		7.5	B	< 2.4		< 2.4		< 2.4		3.7	B	< 2.4		2.7		< 2.4		< 2.4		< 2.4	
Mar-04		NA		NA	7.4	B		NA	< 1.9			NA	< 2.7			NA	**30.4**			NA		NA	9.8	B		NA	< 1.9		8.9	B	< 1.9		< 1.9		< 1.9		3.4	B	5.6	B	< 1.9		< 1.9		2.9	B	< 1.9		< 1.9	
Jun-05	8.1	B		NA	4	B		NA	< 3.1			NA	< 3.1	N		NA		NA	< 3.1			NA	3.1	N		NA	3.7	B, N	8.6	B, N	< 3.1	N	< 3.1	N	< 3.1	N	< 3.1	N	< 3.1	N	< 3.1	N	4.2	B, N	< 3.1	N	< 3.1	N	< 3.1	N
Sep-06	**43**			NA	2.8	J		NA	6.9			NA	2.8	J		NA	**33**			NA		NA	4.7	J		NA	< 5		26		3.1	J	< 5		4.5	J	5.9		< 5		< 5		1.2	J	< 5		2	J	1.3	J
Oct-07	**31**			NA	6.2			NA	< 5			NA	< 5			NA	< 5			NA		NA	< 5			NA	< 5		15		< 5		4.2	J	4.4	J	6.1		< 5		< 5		< 5		< 5		< 5	
Mar-09	7.1	J		NA	< 10			NA	< 10			NA	< 10			NA	9.8	J		NA		NA	< 10			NA	< 10		12		< 10		< 10		< 10		5.7	J	< 100		< 10		< 10			NA	< 10		< 10	
May-10	11.2			NA	< 10			NA	< 10			NA	< 10			NA	15.5			NA		NA	< 10			NA	< 10		10.1		< 10		< 10		< 10		8.4	J	< 10		< 10		< 10			NA	< 10		< 10	
Sep-11	**40**		< 10		< 10		< 10		**53**		7.3	J	< 10			NA	9.5	J	< 10		< 10		< 10			NA	< 10		6.1	J	< 10		< 10		7.6	J	7.9	J	< 10		< 10		< 10			NA		NA		NA
Nov-12	18			NA	< 10			NA	15			NA	9.8	J		NA	9.3	J		NA		NA	8.8	J		NA	< 10		12		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10	
Mar-14	14				< 10			NA	< 10			NA	< 10			NA	6.7	J		NA		NA	9.3	J		NA	< 10		11	NA	< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10	

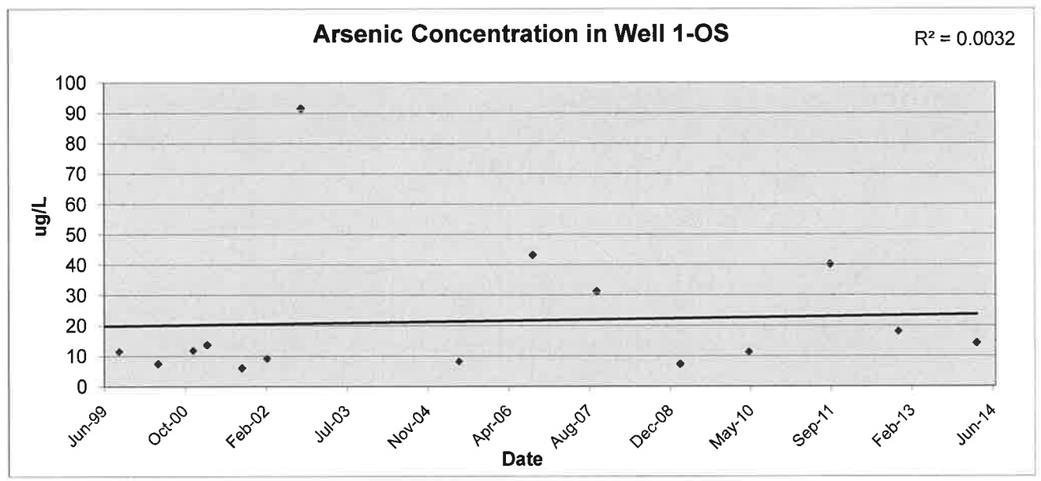
Notes:

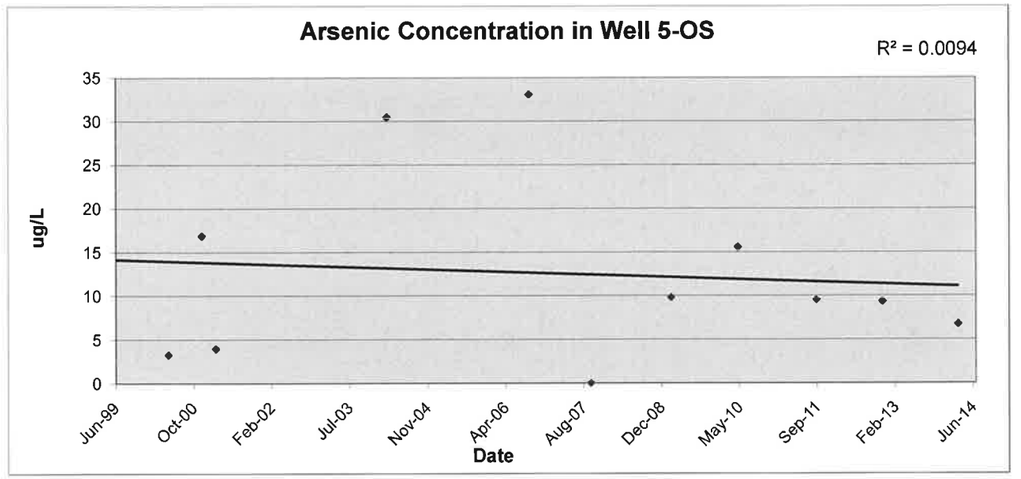
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

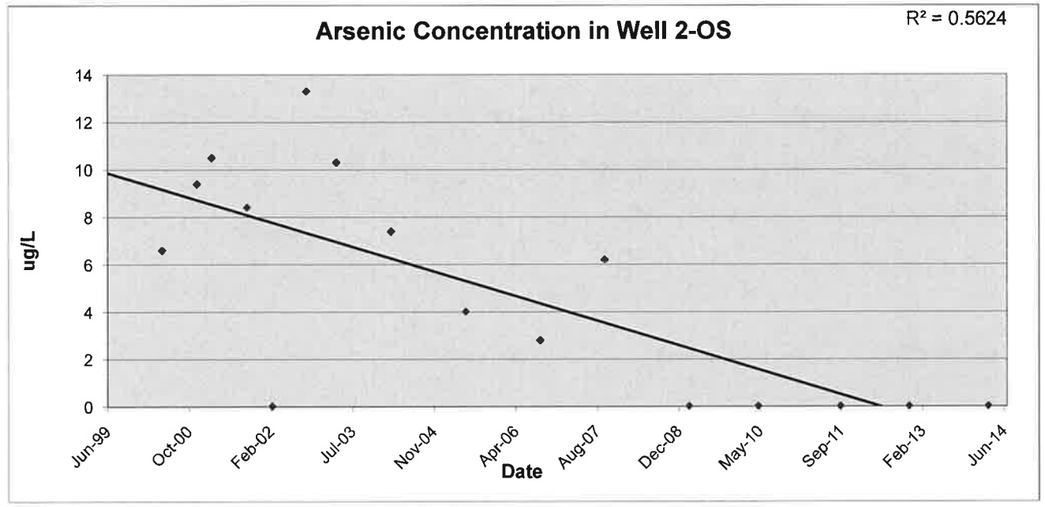
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.


Arsenic Concentration in Well 1-OS
R² = 0.0032
ug/L
100
90
80
70
60
50
40
30
20
10
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Arsenic Concentration in Well 5-OS
R² = 0.0094
ug/L
35
30
25
20
15
10
5
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Arsenic Concentration in Well 2-OS
R² = 0.5624
ug/L
14
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

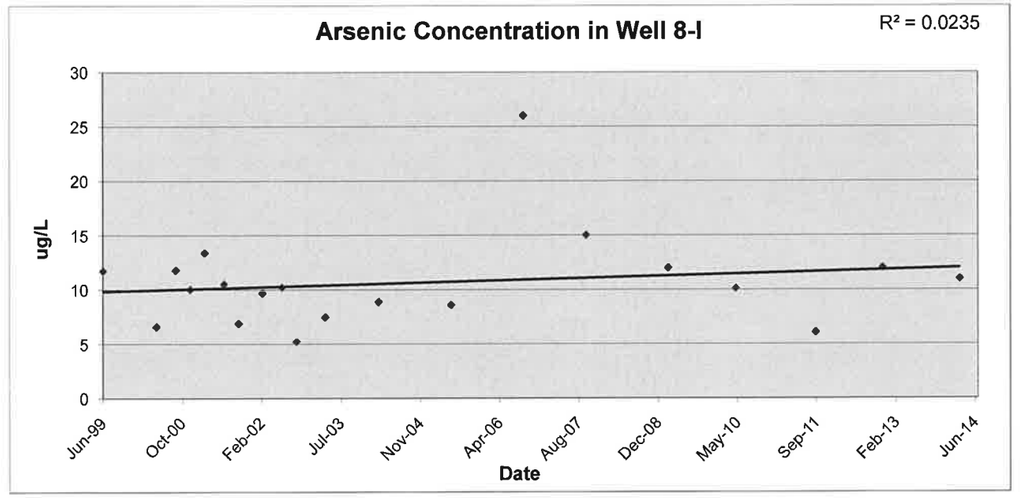

Arsenic Concentration in Well 8-I
R² = 0.0235
ug/L
30
25
20
15
10
5
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-7
Historical Summary of Groundwater Quality Results - Chromium (µg/L)
Town of Ramapo Landfill
ARAR Standard = 50 (µg/L)
USEPA MCL = 100 (µg/L)
Part 5 MCL = 100 (µg/L)

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	20.2		**56.8**		2		1.1		6.8		15			ND		ND		ND		ND		ND		ND		ND
Sep-99	**1850**		**73.4**		**285**			ND	**321**		**75.7**		**87.7**			ND		NA	10.6		2.7		**59.2**			ND	31			ND		ND		ND		ND	47.3			ND		ND		NA		NA		NA		NA
May-00	**2100**		**58.6**		**415**		4	B	**687**		**51.2**		36.8		< 0.5		**69.3**			NA	14.7		**200**		< 0.5		30.1		10		1.1	B	34.5		10.8		3	B	0.75	B	< 0.5		< 0.5		0.53	B	< 0.5		< 0.5	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	16.9	B	17.3		2.2	B	7.4	B	5	B	1.6	B	< 0.9		< 0.9		< 0.9		< 0.9		< 0.9	
Dec-00	**405**		9.8	B	**120**		4.7	B	**453**		**213**		17.9		< 0.9		**165**			NA	7.2	B	34.7		< 0.9		8.8	B	22.9		3.6	B		NA		NA		NA	< 0.9		1.4	B	< 0.9		< 0.9		< 0.9	
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	20.1		4.1	B	2.4	B	< 0.9			NA		NA		NA		NA
Mar-01	**253**		**119**		**128**		< 0.9		**522**		**124**		13.2		< 0.9		38.6			NA	3.9	B	**51.9**		< 0.9		25.8		49.9		7.7	B	17		28.8		4.1	B	< 0.9		< 0.9		< 0.9		< 0.9		< 0.9	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	6.55	B	19.9		5.56	B	< 0.9		2.35	B	1.12	B	< 0.9		< 0.9		< 0.9		< 0.9		< 0.9	
Oct-01	20.6		47.1		**87.1**		3.9	B	**467**		12.7		4	B	2.2	B		NA	3.3	B	3.3	B	48.4		2.3	B	20.6		2.3	B	3.9	B	17.4		1.2	B	1.9	B	1.2	B	1.8	B		NA		NA		NA		NA
Mar-02	**60.1**		10.2		35.6		9.6	B	**257**		33.5		8.7	B	< 0.83			NA	10.5		24.6		22.1		< 0.83		16.4		4.8	B	1.2	B	12.5		2.4	B	< 0.83		< 0.83		< 0.83		< 0.83		< 0.83		< 0.83		< 0.83	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	5.7	B	9.5	B	1.7	B	5.2	B	3.8	B	< 0.83		< 0.83		< 0.83		< 0.83		< 0.83		< 0.83		< 0.83	
Oct-02	**386**	E	**82.9**	E	**2040**	E	4.6	B, E	**1400**	E	31.2	E	35	E	1.3	B, E		NA	1.2	B, E	9.9	B, E	**108**	E		NA	33.8	E	9.5	B, E	6.1	B, E	9.7	B, E	< 0.83	E	< 0.83	E	< 0.83	E	< 0.83	E	< 0.83		< 0.83		< 0.83		< 0.83	
Apr-03		NA	< 0.8		**89.8**		4.8	B	**4250**		**86.8**		17.9		< 0.8			NA	5.6	B	5.6	B	36			NA	10.4		15.5		< 0.8		19.2		4.2	B	< 0.8		< 0.8		< 0.8		< 0.8		< 0.8		< 0.8		< 0.8	
Mar-04		NA		NA	**87.1**			NA	**816**			NA	9.4	B		NA	**237**			NA		NA	**133**			NA	10.3		19.4		2	B	10.4		2.8	B	2.6	B	1.3	B	1.5	B	1.4	B	1.9	B	1.5	B	1.2	B
Jun-05	31.4			NA	**101**			NA	**2020**			NA	**56.7**			NA		NA	5.6	B		NA	5.7	B		NA	29.6		3.3	B	2.5	B	2.4	B	1.4	B	1.9	B	< 0.9		< 0.9		< 0.9		0.93	B	< 0.9		0.94	B
Sep-06	**2400**			NA	**120**			NA	**7200**			NA	**1300**			NA	**690**			NA		NA	**87**			NA	**140**		30		42		**55**		36		4.1	J	2.7	J	2.8	J	3.2	J	2	J	< 10		< 10	
Oct-07	**530**			NA	**250**			NA	**3400**			NA	**270**			NA	32			NA		NA	**96**			NA	**85**		41		11		**330**		**150**		4.3	J	< 10		< 10		< 10		< 10		< 10		< 10	
Mar-09	**140**			NA	**480**			NA	**3900**			NA	**230**			NA	**170**			NA		NA	**61**			NA	**680**		27		11		**300**		38		< 10		< 10		< 10		< 10	NA	< 10		< 10	
May-10	**1990**			NA	**722**			NA	**2570**			NA	**522**			NA	**278**			NA		NA	**158**			NA	**152**		14		< 4		**176**		**53.9**		2.5	J	< 4		< 4		< 4		< 4	NA	< 4		< 4	
Sep-11	**11100**		**970**		**1000**		2.7	J	**29700**		**2600**		**290**			NA	**120**		11		**93**		**480**			NA	**1500**		< 4		< 4		**430**		**380**		< 4		< 4		< 4		< 4		< 4			NA		NA
Nov-12	**2400**			NA	**280**			NA	**4100**			NA	**1700**			NA	**130**			NA		NA	**230**			NA	**140**		2.9	J	< 4		**100**		2.6	J	< 4		< 4		< 4		< 4		< 4			NA
Mar-14	**5200**			NA	**1100**			NA	**2800**			NA	**540**			NA	**96**			NA		NA	**300**			NA	**85**		3.7	J		ND	**290**		11			ND		ND		ND		ND		ND		ND		ND

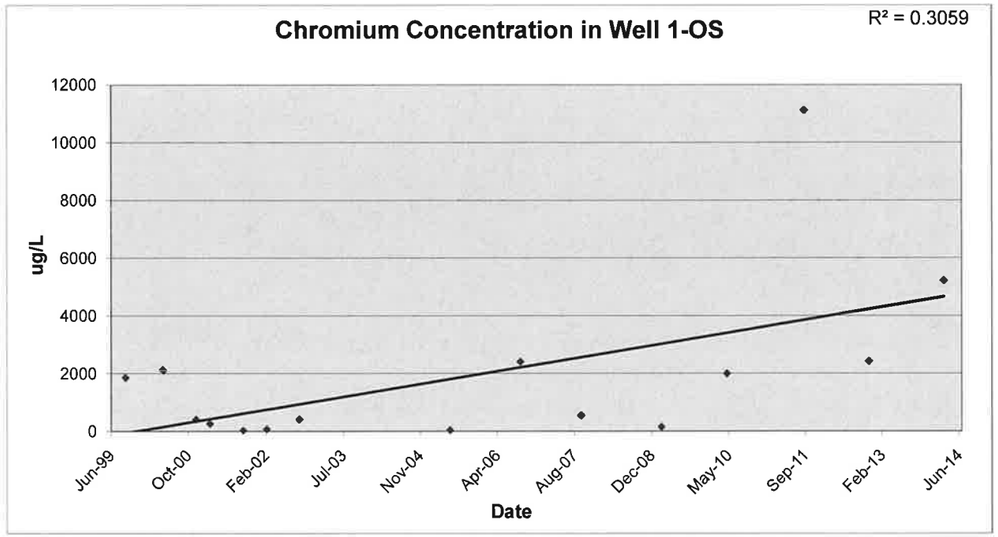
Notes:

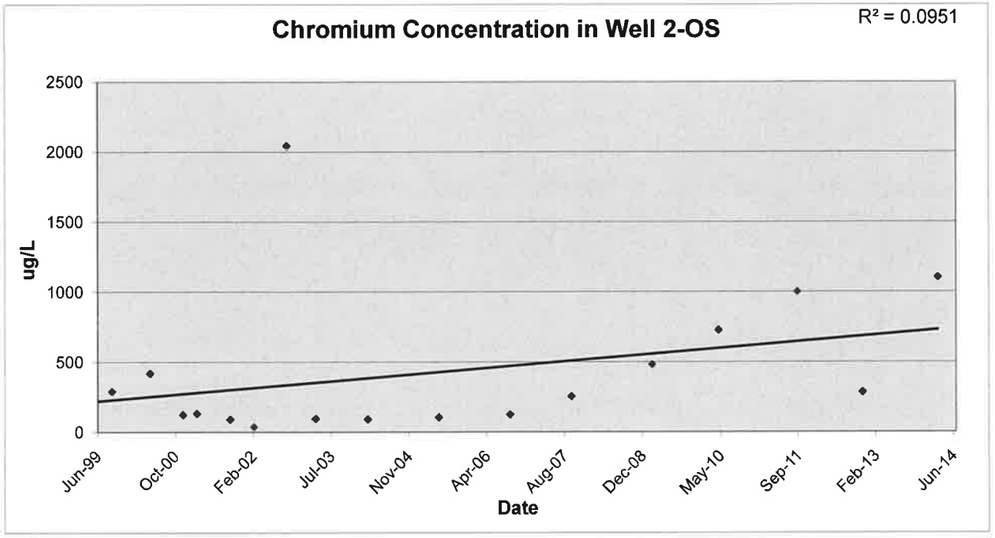
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

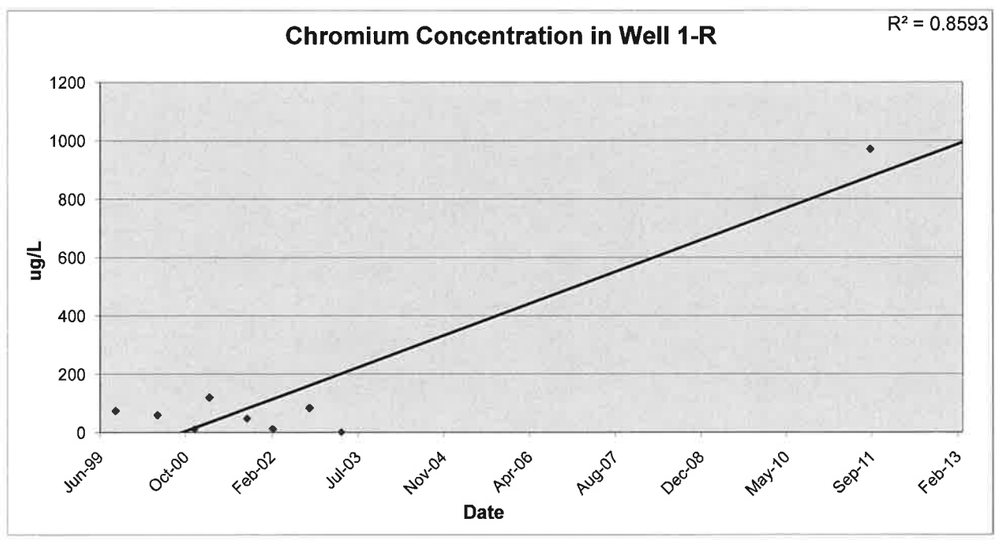
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

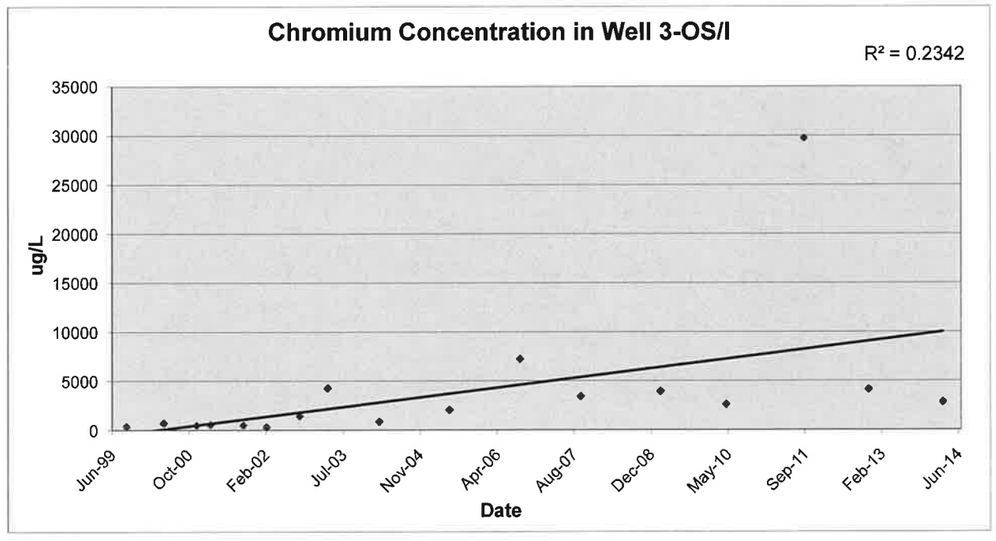
Laboratory Qualifier Definitions

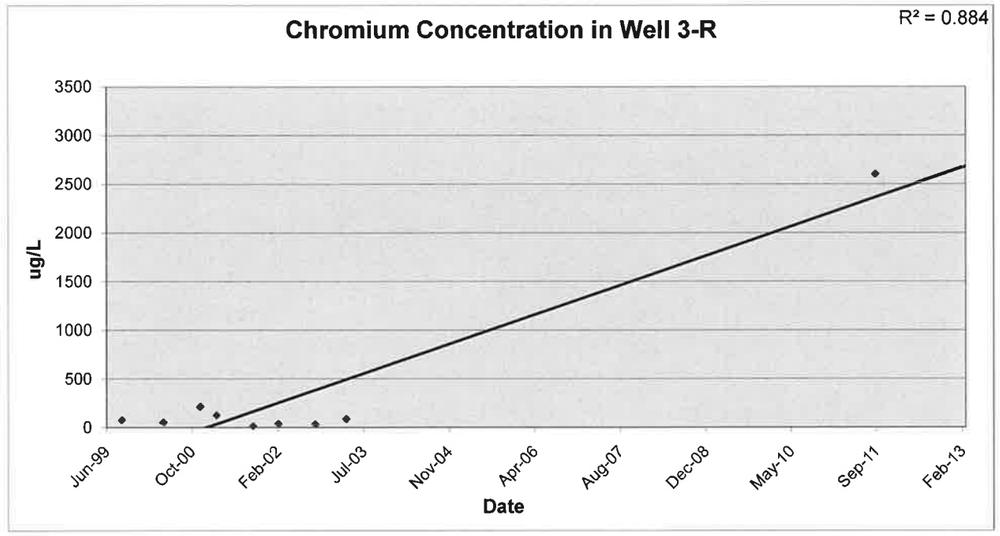
B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
E = Indicates an estimated value because of the possible presence of interference.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

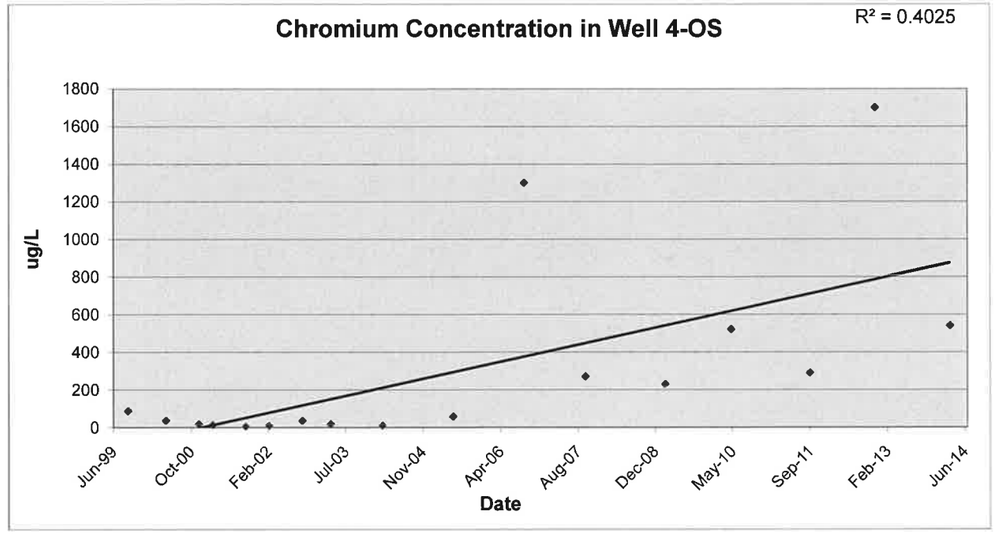

Chromium Concentration in Well 1-OS
R² = 0.3059
12000
10000
8000
6000
4000
2000
0
ug/L
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

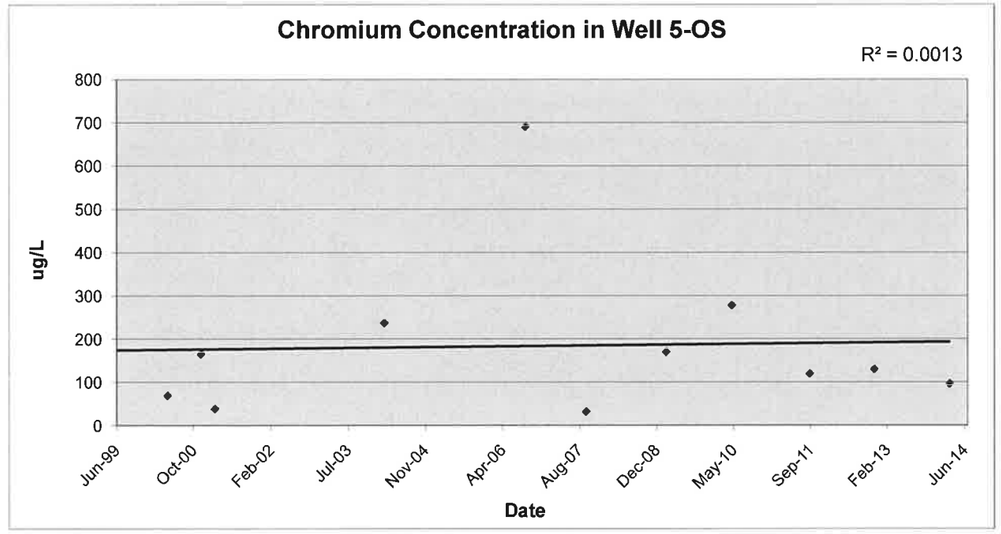

Chromium Concentration in Well 2-OS
R² = 0.0951
2500
2000
1500
1000
500
0
ug/L
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

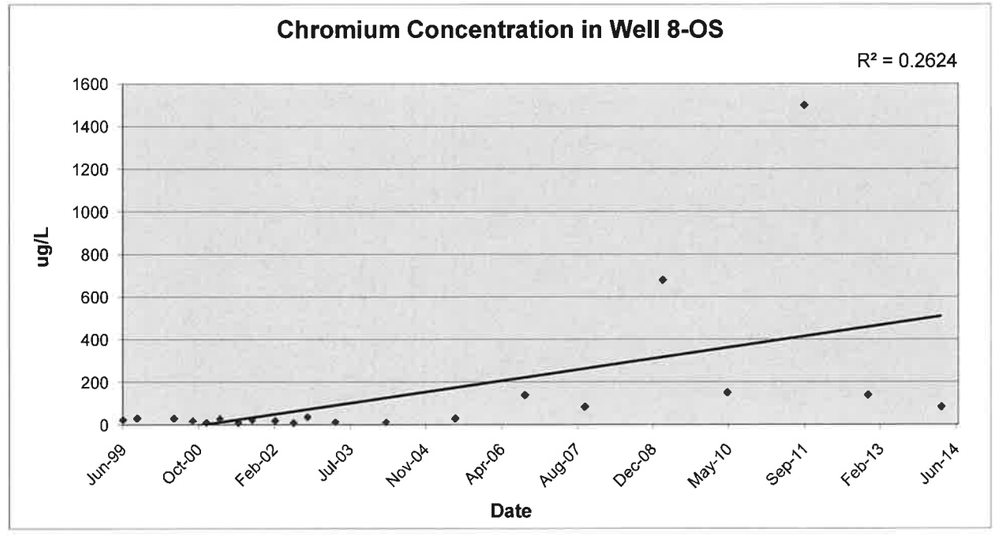

Chromium Concentration in Well 1-R
R² = 0.8593
1200
1000
800
600
400
200
0
ug/L
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date

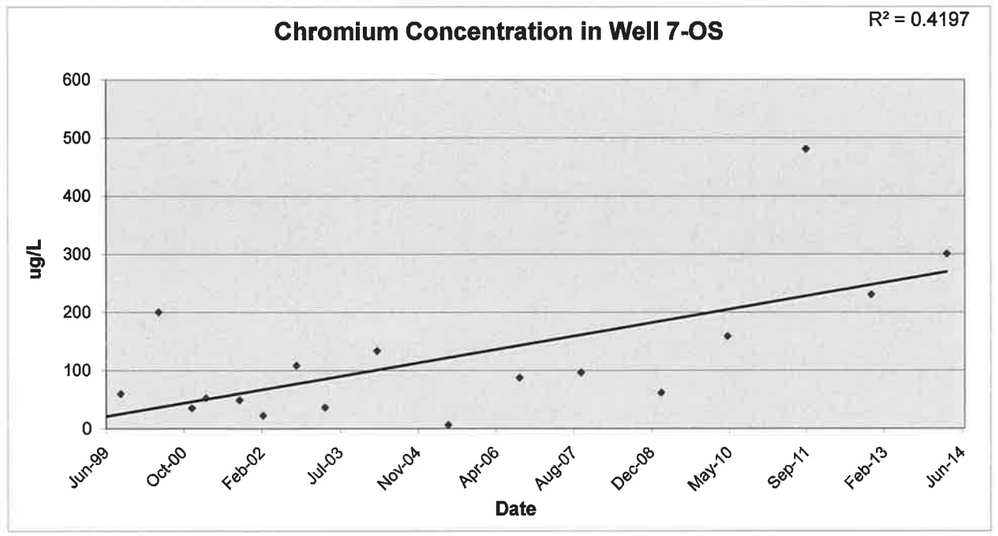

Chromium Concentration in Well 3-OS/I
R² = 0.2342
35000
30000
25000
20000
15000
10000
5000
0
ug/L
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

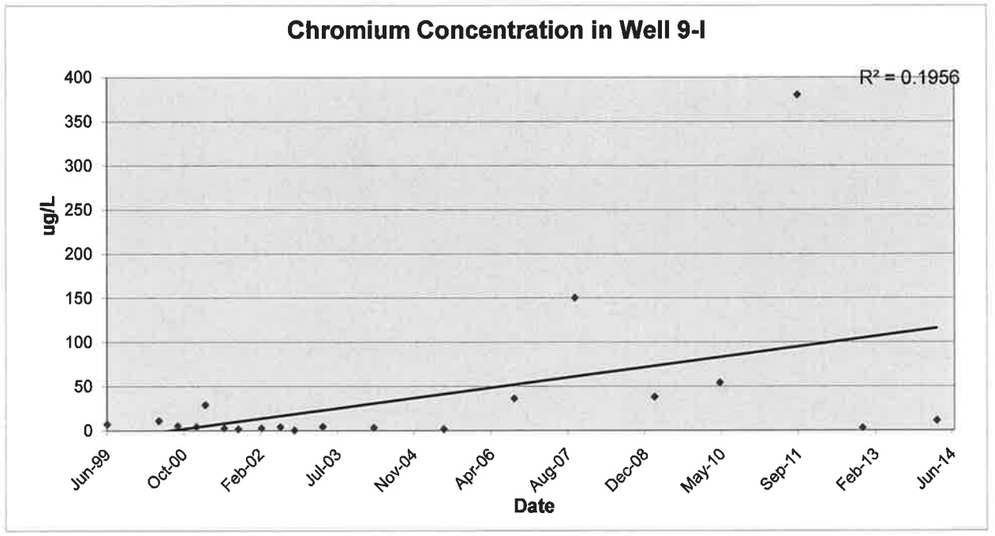

Chromium Concentration in Well 3-R
R² = 0.884
ug/L
3500
3000
2500
2000
1500
1000
500
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date


Chromium Concentration in Well 4-OS
R² = 0.4025
ug/L
1800
1600
1400
1200
1000
800
600
400
200
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Chromium Concentration in Well 5-OS
R² = 0.0013
ug/L
800
700
600
500
400
300
200
100
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Chromium Concentration in Well 8-OS
R² = 0.2624
ug/L
1600
1400
1200
1000
800
600
400
200
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Chromium Concentration in Well 7-OS
R² = 0.4197
ug/L
600
500
400
300
200
100
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Chromium Concentration in Well 9-I
R² = 0.1956
ug/L
400
350
300
250
200
150
100
50
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

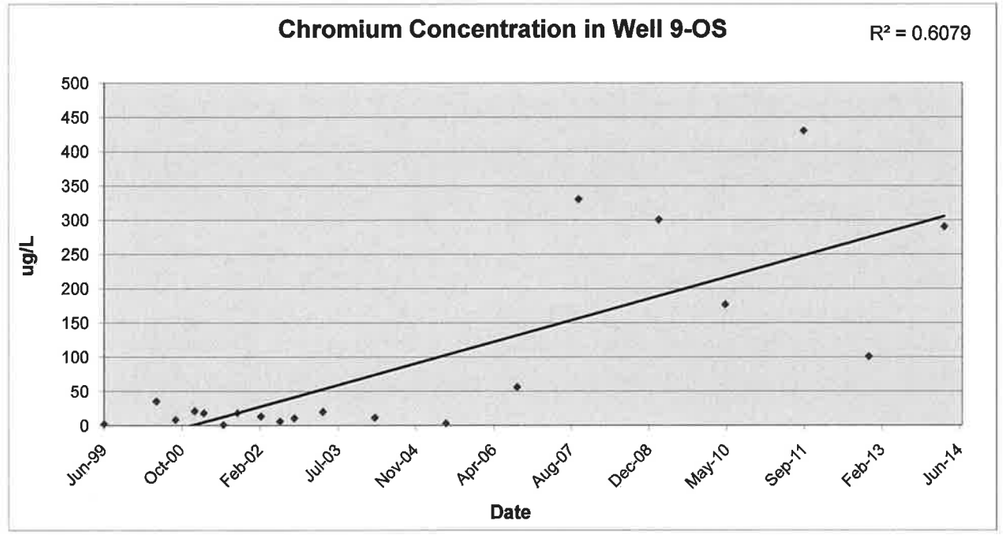

Chromium Concentration in Well 9-OS
R² = 0.6079
ug/L
500
450
400
350
300
250
200
150
100
50
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-8
Historical Summary of Groundwater Quality Results - Iron (µg/L)
Town of Ramapo Landfill
ARAR Standard = 300 (µg/L)
USEPA MCL = Not Available
Part 5 MCL = 300 (µg/L)

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**473**		**19100**		**1140**		**515**		**949**		**4360**		163		114		169		83.1		90.1		67.8	
Sep-99	**76200**		**1420**		**6910**		**2640**		**1990**		**8770**		**50200**		**7500**			NA	**700**		40.4		**11300**			ND	**747**		**4270**		**5260**		198			ND	**3110**			ND		ND		NA		NA		NA		NA
May-00	**40500**		**867**		**32900**		**1790**		**3310**		**1610**		**16300**		**5900**		**41500**			NA	**5000**		**4300**		128		**1200**		**9870**		**1180**		**1880**		**2820**		**1340**		18	B	59.4	B	8.8	B	3.9	B	23.2	B	4.6	B
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**8900**		**22900**		**2230**		**2230**		**3920**		**9110**		< 2.8		36.8	B	4.2	B	< 2.8		< 2.8		< 2.8	
Dec-00	**43800**	E	**990**	E	**32800**	E	**1440**	E	**3620**	E	**3020**	E	**11300**	E	**7240**	E	**101000**	E		NA	**2370**	E	**12400**	E	**310**	E	**4450**	E	**26400**	E	**2580**	E		NA		NA		NA	62	B,E	36.5	B,E	20.5	B,E	14.4	B,E	52.9	B,E
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-01	**54100**		**15700**		**37700**		**337**		**5810**		**4400**		**7690**		**4220**		**22800**			NA	**826**		**4170**	N	213		**6020**	N	**47600**	N	**2500**	N	**3660**	N	**24000**	N	**8080**	E	15.3	B	10.8	B	62.4	B	22.2	B	24.9	B	27.8	B
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**2460**		**27600**		**1680**		< 2.8		**2350**		**8320**		**561**		25.7	B	29.1	B	6.5	B	103		19.3	B
Oct-01	**16400**	E	**6260**	E	**24500**	E	299		**4090**	E	**1140**	E	**1760**	E	**3850**	E		NA	186	E	96.4	E	**10400**	E	22.2	B,E	**4600**	E	**6560**	E	**1770**	E	**3780**	E	145	E	**8150**	E	15.8	B	59.1	B,E		NA		NA		NA		NA
Mar-02	**35200**		**1330**		**10500**		**6830**		**1810**		**2020**		**4310**		**3250**			NA	**5490**		**10300**		**6790**		72.9		**3060**		**16700**		**2110**		**896**		**2000**		**5980**		8.2	B	35.9	B	< 4.5		11.1	B	13	B	< 4.5	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**3540**	*	**16700**	*	**1580**	*	**789**	*	**3290**	*	**7110**	*	7.5	*B	17.3	*B	18.5	B	< 6.6		8.8	B	< 6.6	
Oct-02	**127000**	E	**41600**	E	**48200**	E	**1760**	E	**30800**	E	**13300**	E	**32800**	E	**4520**	E		NA	60.7	E	**1230**	E	**21200**	E		NA	**6600**	E	**17600**	E	**1490**	E	**500**	E	39.9	B,E	**6140**	E	23.5	B,E	32.7	B,E	**939**	E	52.9	B,E	91.4	E	11.2	B,E
Apr-03		NA	**374**		**40700**		**2550**		**31800**		**4830**		**14100**		**6250**			NA	**1910**		**1760**		**1850**			NA	**2490**		**21400**		**969**		**1600**		**3710**		**5720**		9.3	B	25.1	B	23.9	B	19.6	B	56.1	B	7	B
Mar-04		NA		NA	**14700**			NA	**12900**			NA	**3050**			NA	**150000**			NA		NA	**38500**			NA	**1030**		**29700**		**1160**		**506**		**1630**		**4890**		20	B	27.5	B	203		30.3	B	157		< 16.8	
Jun-05	**54200**	N		NA	144	N		NA	**60500**	N		NA	**1230**			NA		NA	124	N		NA	**1310**			NA	**3150**		**13900**		**751**		**453**		**318**		**6430**		18.6	B	115		14.4	B	7.7		17.2	B	< 7.7	
Sep-06	**120000**			NA	**12000**			NA	**77000**			NA	**12000**			NA	**410000**			NA		NA	**17000**			NA	**1200**		**43000**		**4700**		**1600**		**24000**		**7000**		15	J	34	J	21	J	< 50		260		< 50	
Oct-07	**160000**			NA	**31000**			NA	**25000**			NA	**24000**			NA	**850**			NA		NA	**13000**			NA	**780**		**39000**		**1300**		**6300**		**41000**		**8500**		17	J	130		46	J	12	J	76		< 50	
Mar-09	**38000**			NA	**12000**			NA	**30000**			NA	**10000**			NA	**110000**			NA		NA	**5800**			NA	**3800**		**33000**		**1300**		**7800**		**23000**		**9400**		12	J	140		29	J		NA	33	J	16	J
May-10	**44100**	B		NA	**22700**			NA	**24000**	B		NA	**6830**			NA	**176000**			NA		NA	**19300**	B		NA	**1070**	B	**27000**	B	**563**	B	**4640**	B	**30300**	B	**12500**	B	23	B,J	71	B	< 50			NA	30	B,J	**598**	B
Sep-11	**82000**		**8600**	B	**16000**		260		**158000**		**18000**		**3500**			NA	**66500**		**1300**		**28100**	B	**19300**			NA	**6500**		**12600**	B	350	B	**7500**	B	**40100**	B	**7300**	**B**	28	B,J	80	B	140	B	90	B		NA		NA
Nov-12	**45200**			NA	**6600**			NA	**34800**			NA	**18500**			NA	**68500**			NA		NA	**14300**			NA	**950**		**15800**		300		**1300**		75		**5400**		55		250		< 50		< 50		< 50			NA
Mar-14	**66000**			NA	**17900**			NA	**16600**			NA	**8900**			NA	**53500**			NA		NA	**24500**			NA	**540**		**14400**		210		**3700**		100		**6800**		34	J	110			ND		ND		ND		ND

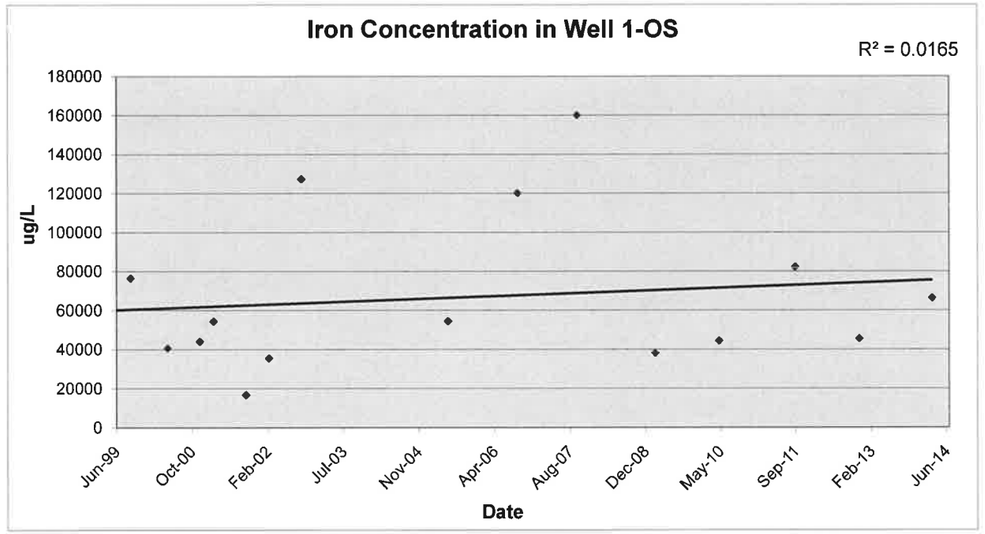
Notes:

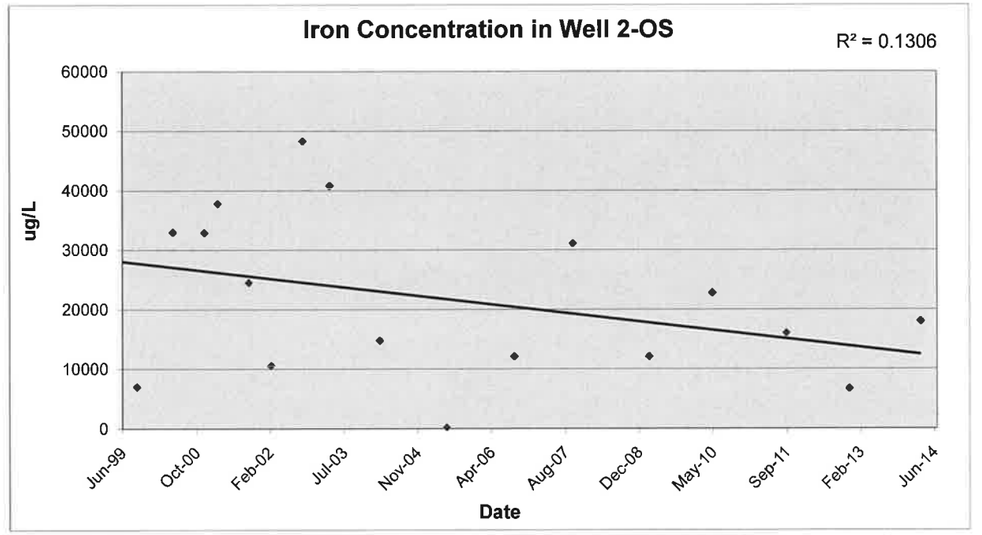
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

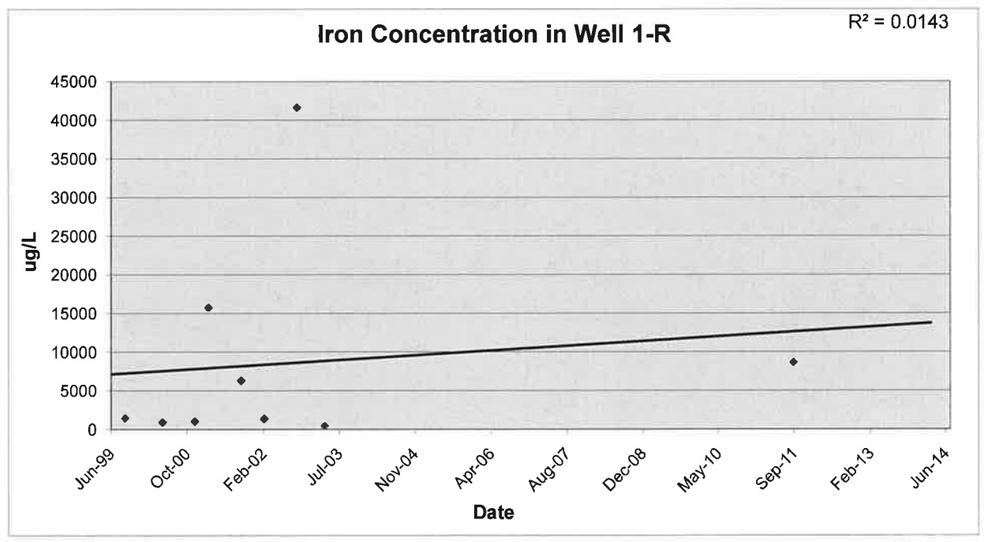
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

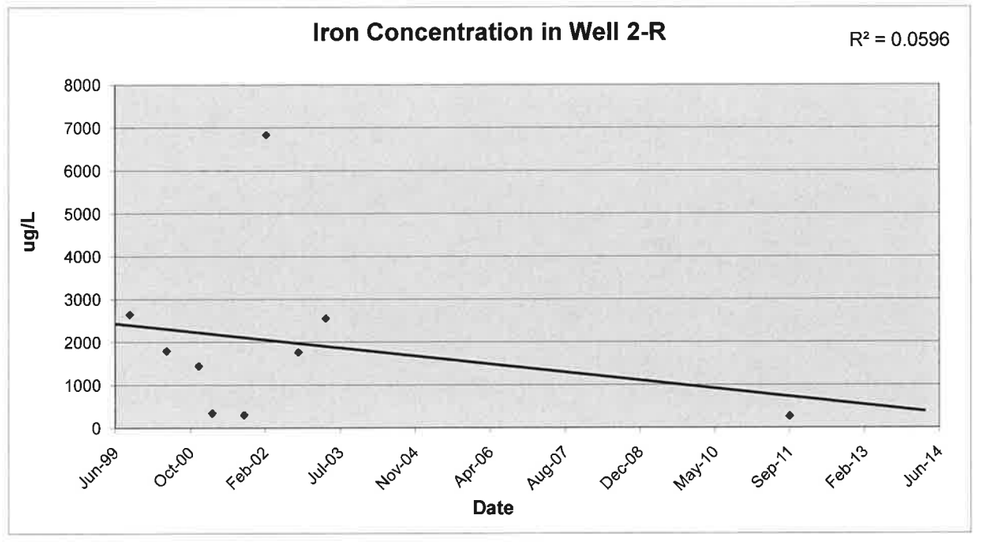
Laboratory Qualifier Definitions

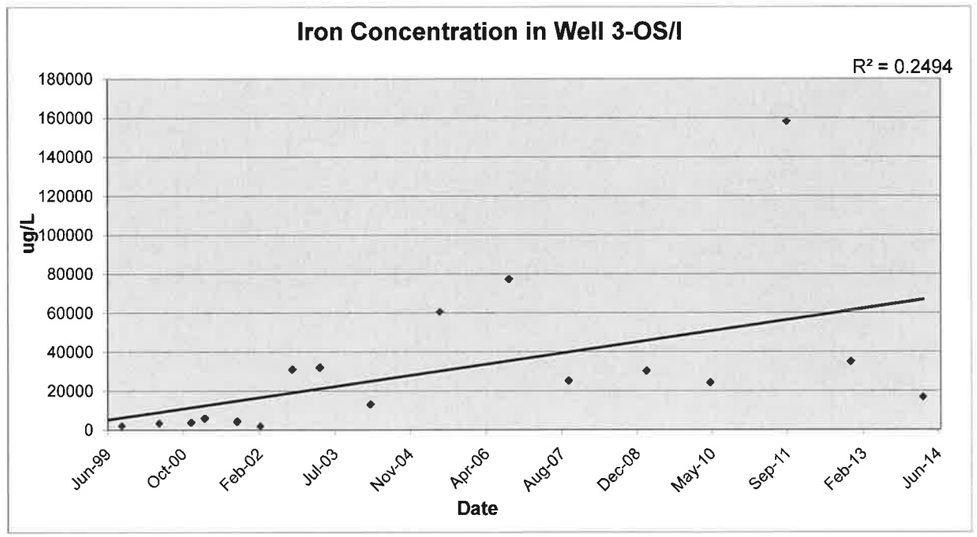
B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
E = Indicates an estimated value because of the possible presence of interference.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

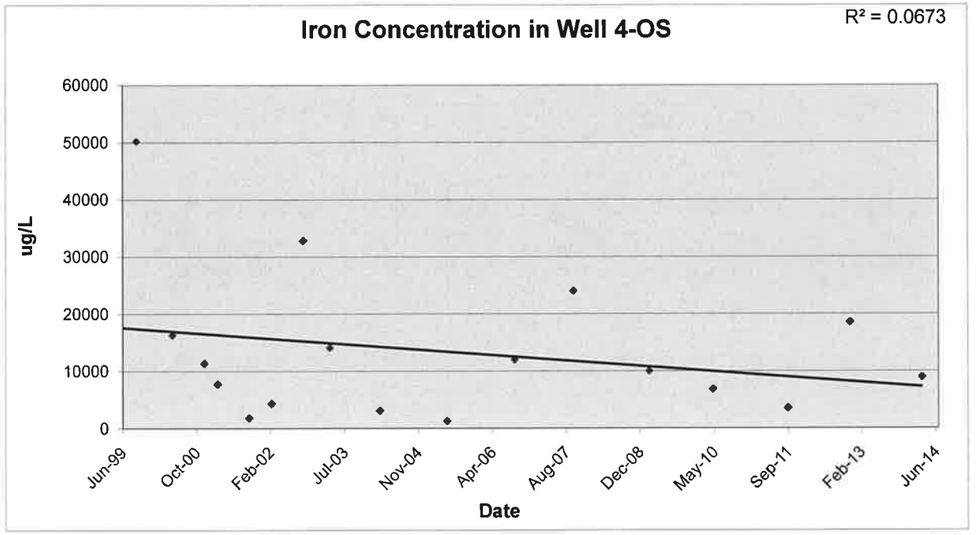

Iron Concentration in Well 1-OS
R² = 0.0165
ug/L
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

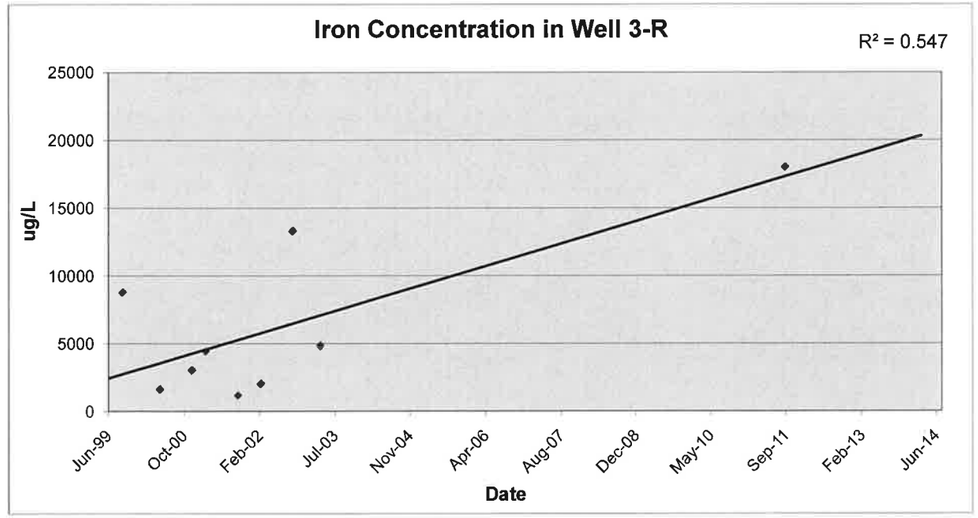

Iron Concentration in Well 2-OS
R² = 0.1306
ug/L
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

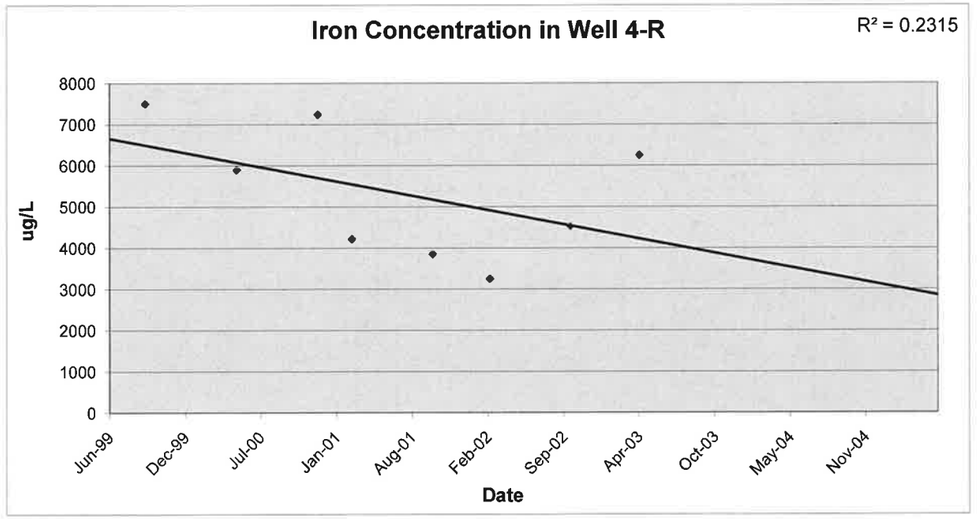

Iron Concentration in Well 1-R
R² = 0.0143
ug/L
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

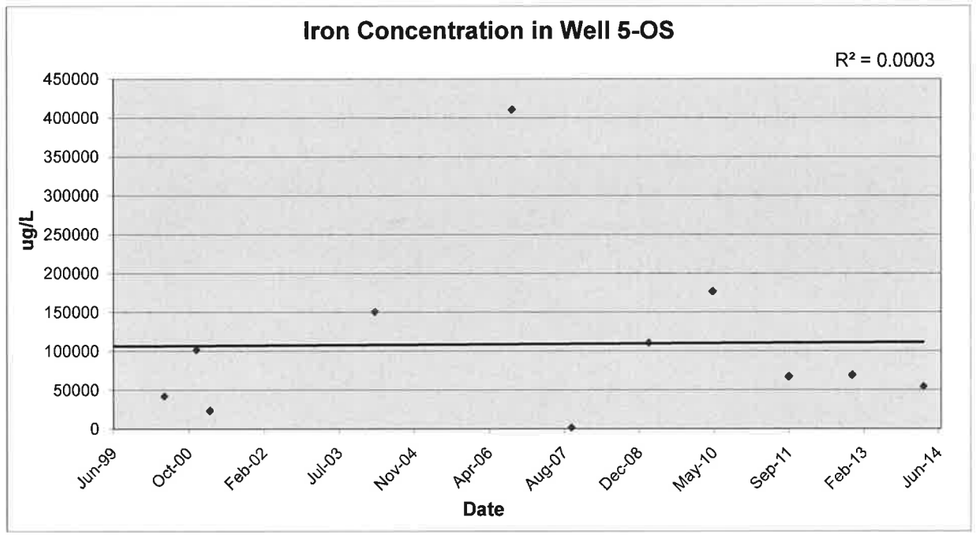

Iron Concentration in Well 2-R
R² = 0.0596
ug/L
8000
7000
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

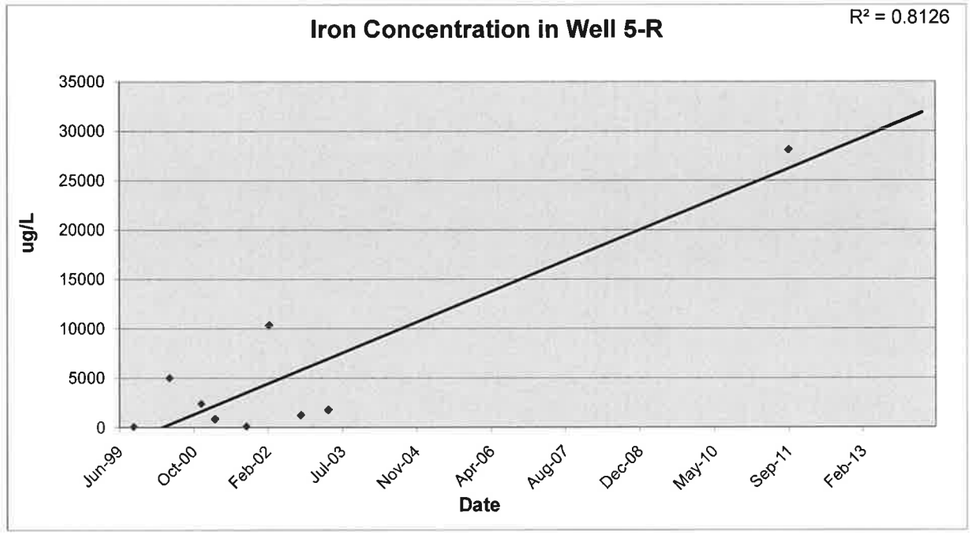

Iron Concentration in Well 3-OS/I
R² = 0.2494
ug/L
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

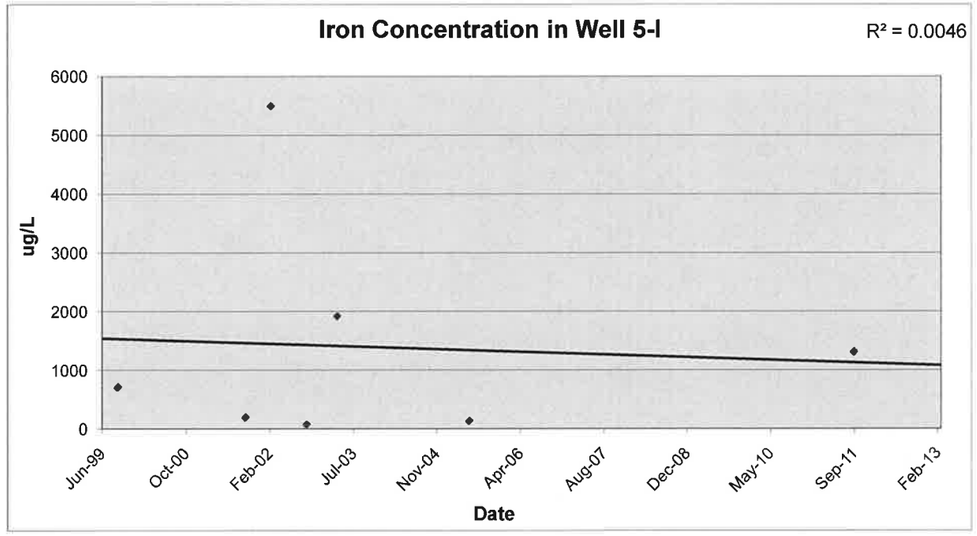

Iron Concentration in Well 4-OS
R² = 0.0673
ug/L
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

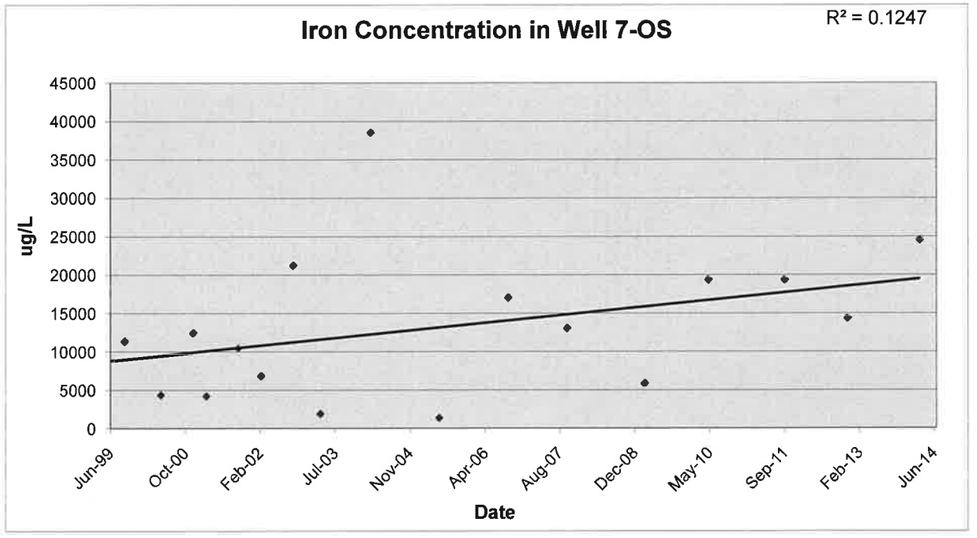

Iron Concentration in Well 3-R
R² = 0.547
ug/L
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

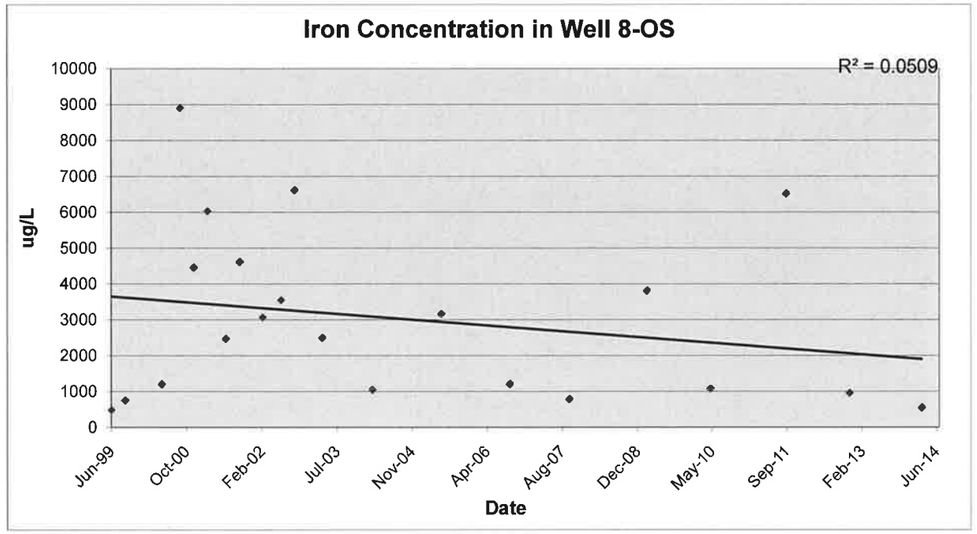

Iron Concentration in Well 4-R
R² = 0.2315
ug/L
8000
7000
6000
5000
4000
3000
2000
1000
0
Jun-99
Dec-99
Jul-00
Jan-01
Aug-01
Feb-02
Sep-02
Apr-03
Oct-03
May-04
Nov-04
Date

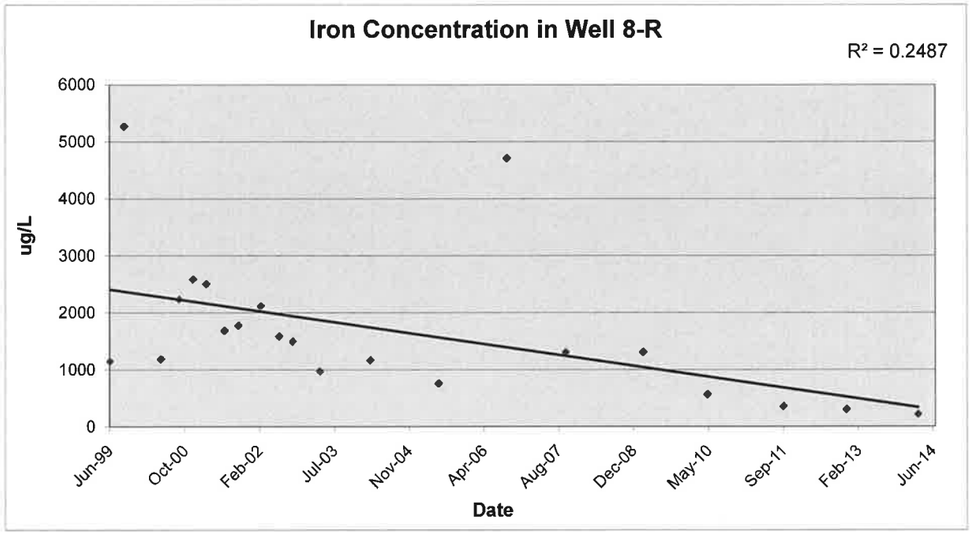

Iron Concentration in Well 5-OS
R² = 0.0003
ug/L
450000
400000
350000
300000
250000
200000
150000
100000
50000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

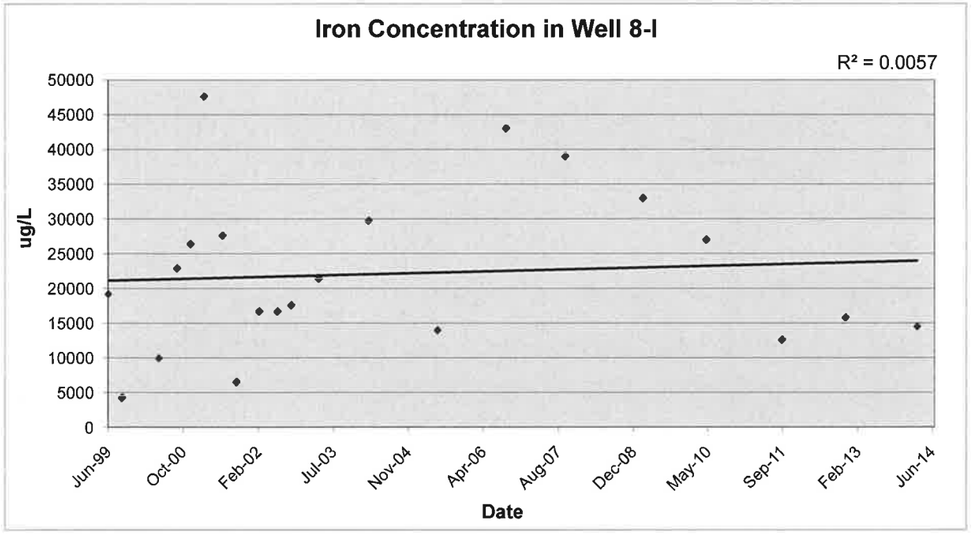

Iron Concentration in Well 5-R
R² = 0.8126
ug/L
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date

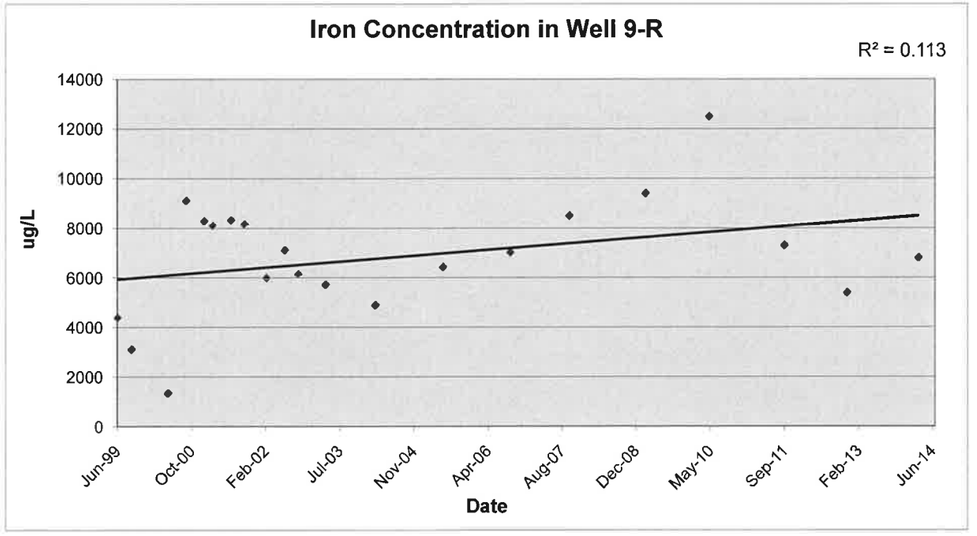

Iron Concentration in Well 5-I
R² = 0.0046
ug/L
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date

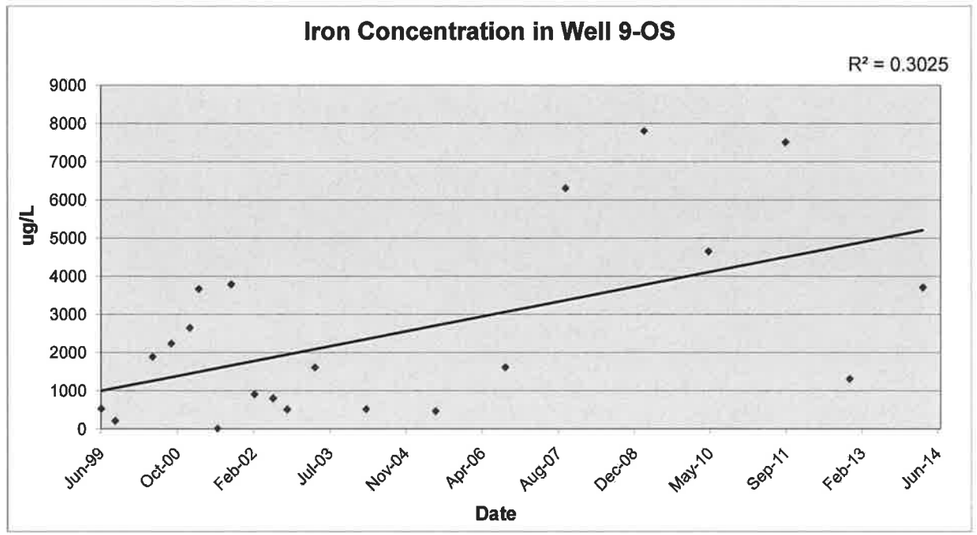

Iron Concentration in Well 7-OS
R² = 0.1247
ug/L
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Iron Concentration in Well 8-OS
R² = 0.0509
ug/L
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Iron Concentration in Well 8-R
R² = 0.2487
ug/L
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Iron Concentration in Well 8-I
R² = 0.0057
ug/L
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Iron Concentration in Well 9-R
R² = 0.113
ug/L
14000
12000
10000
8000
6000
4000
2000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Iron Concentration in Well 9-OS
R² = 0.3025
ug/L
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

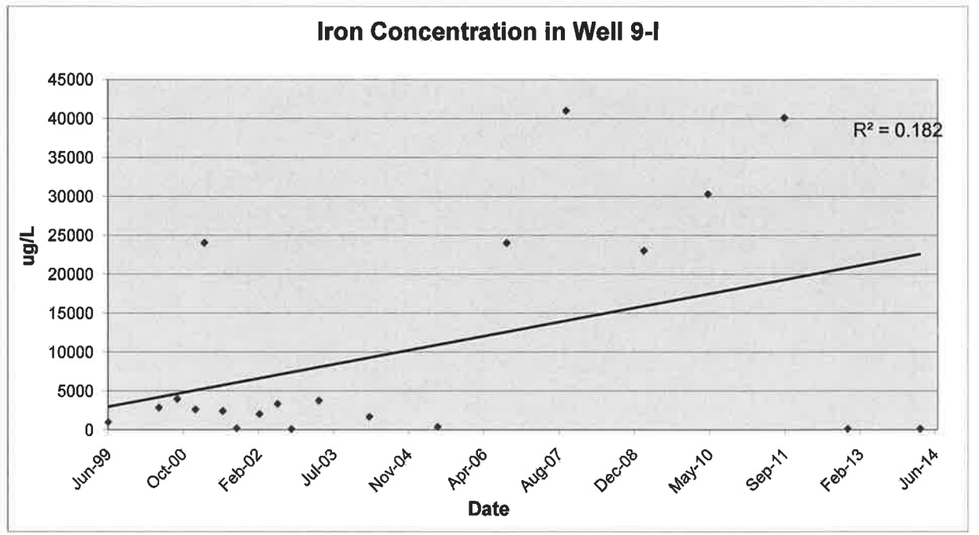

Iron Concentration in Well 9-I
R² = 0.182
ug/L
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-9
Historical Summary of Groundwater Quality Results - Lead (µg/L)
Town of Ramapo Landfill
ARAR Standard = 25 (µg/L)
USEPA MCL = 15 (µg/L)
PART 5 MCL = Not Available

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		ND	5.5		2.5			ND		ND		ND	2.5			ND	2.7			ND		ND		ND
Sep-99	10.1			ND	4			ND		ND		ND	12.3			ND		NA		ND	4.9			ND		ND		ND		ND	10.8			ND		ND		ND		ND		NA		NA		NA		NA
May-00	5.8		< 1.5		**38**		< 1.5		< 1.5		1.8	B	2.3	B	< 1.5		5.4			NA	< 1.5		< 1.5		< 1.5		< 1.5		< 1.5		< 1.5		1.8	B	2.3	B	6.8		2.3	B	2.3	B	< 1.5		< 1.5		< 1.5	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 3.4		4.8		4.4		2.6	B	1.9	B	< 1.7		8.9		5.1		2.8	B	2.5	B	< 1.7		2	B
Dec-00	6.6		< 1.7		**32.2**		< 1.7		< 1.7		2	B	< 1.7		2.4	B	17.6			NA	< 1.7		5.7		< 1.7		< 1.7		3.6		< 1.7			NA		NA		NA	< 1.7		< 1.7		< 1.7		< 1.7		< 1.7	
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		ND		NA		NA	4.3		< 2		< 2		4.1			NA		NA		NA		NA
Mar-01	14.3		5.1		**45.9**		2.5	B	5.3		4.7		3.2		2.6	B	5.9			NA	3.9		< 2		< 2		< 2		6.8		< 2		< 2		4.6		2.2	B	2.3	B	< 2		< 2		< 2		< 2		< 2	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 2			NA	3.3		< 2		6		< 2		< 2		< 2		< 2		< 2		< 2		< 2	
Oct-01	5	B	2.2	B	**25.2**		< 2		< 2		< 2		< 2		< 2			NA	< 2		< 2		7.1		< 2		< 2		< 2		2.2		< 2		< 2		< 2		2.9	B	4	B		NA		NA		NA		NA
Mar-02	8.6		3.3	B	10		4.8	B	< 2.9		< 2.9		< 2.9		< 2.9	N		NA	< 2.9		3	B	< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9		< 2.9	
Oct-02	10.3	N	4.8	B,N	**31.3**	N	< 2.9	N	3.9	B,N	4.2	B,N	7.1	N	< 2.9			NA	< 2.9	N	< 2.9	N	7.2	N		NA	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	3.5	B,N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N
Apr-03		NA	< 2.2		**41.1**		< 2.2		6.7		< 2.2		2.6	B	2.3	B		NA	< 2.2		< 2.2		< 2.2			NA	< 2.2		3.5	B	3	B	< 2.2		< 2.2		< 2.2		5.2		2.3	B	< 2.2		< 2.2		< 2.2		< 2.2	
Mar-04		NA		NA	18.3	N		NA	2.2	B		NA	7.7	N		NA	**34**	N		NA		NA	12.8			NA	< 1.1		3		< 1.1		< 1.1		< 1.1		< 1.1		4.9		< 1.1		< 1.1		< 1.1		< 1.1	
Jun-05	5.8			NA	7.6			NA	3.1			NA	< 1.9			NA		NA	< 1.9			NA	2.5	B		NA	< 1.9		< 1.9		3.5		< 1.9		< 1.9		< 1.9		< 1.9		2	B	< 1.9		< 1.9		< 1.9	
Sep-06	**94**			NA	9.1			NA	1.1	J		NA	1.2	J		NA	**67**			NA		NA	6.3			NA	< 5		3.5	J	4	J	1	J	3.5	J	< 5		< 5		2.1	J	< 5		< 5		< 5		< 5	
Oct-07	**44**			NA	22			NA	< 5			NA	4.2	J		NA	< 5			NA		NA	< 5			NA	< 5		< 5		< 5		6.1		4.6	J	< 5		< 5		< 5		< 5		< 5		< 5	
Mar-09	6.3	J		NA	5.7	J		NA	< 10			NA	< 10			NA	12			NA		NA	< 10			NA	< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10	NA	< 10		< 10	
May-10	18.3			NA	4.9	J		NA	< 5			NA	< 5			NA	23.3			NA		NA	6			NA	< 5		< 5		< 5		< 5		3.6	J	< 5		< 5		< 5		< 5		< 5	NA	< 5		< 5	
Sep-11	**43**		3.2	J	4.6	J	< 5		< 5		5.3		< 5			NA	16		< 5		**19**		6.9			NA	< 5		< 5		< 5		5		14		< 5		5.6		< 5		< 5		< 5			NA		NA
Nov-12	20			NA	< 5			NA	< 5			NA	< 5			NA	11			NA		NA	3.3	J		NA	< 5		< 5		< 5		< 5		< 5		< 5		**17**		< 5		< 5		< 5			NA
Mar-14	25			NA	4.9	J		NA		ND		NA		ND		NA	7.8			NA		NA	9.4			NA		ND		ND		ND	3.5	J		ND		ND		ND		ND		ND		ND		ND		ND

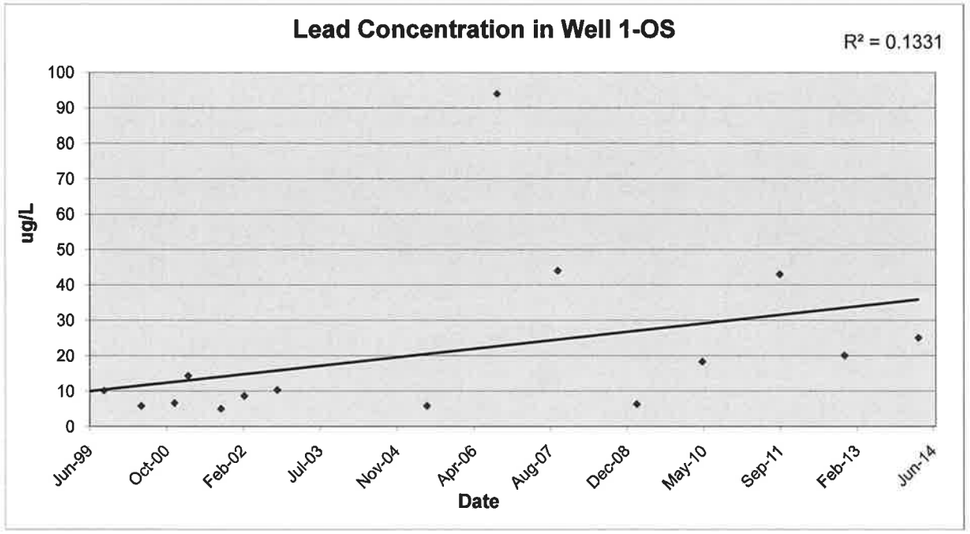
Notes:

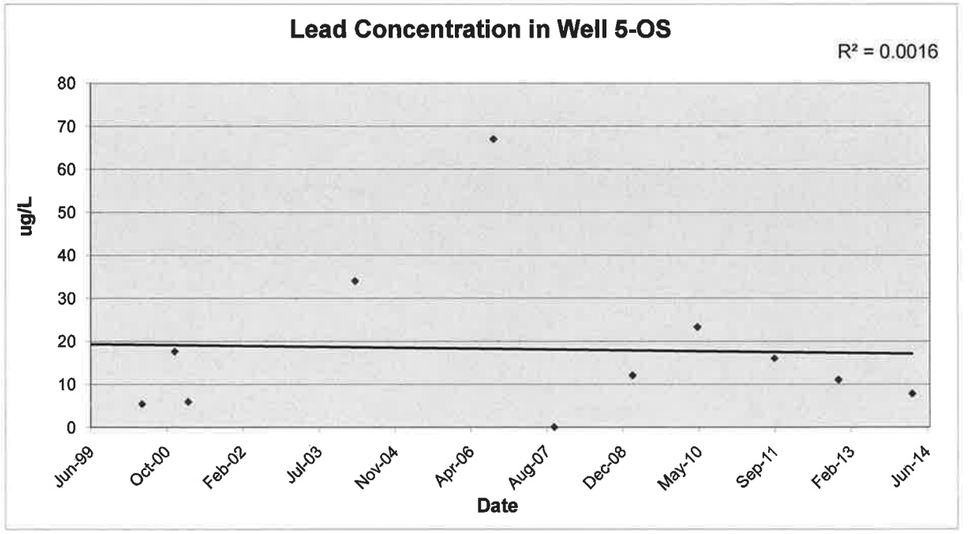
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.


Lead Concentration in Well 1-OS
R² = 0.1331
ug/L
100
90
80
70
60
50
40
30
20
10
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Lead Concentration in Well 5-OS
R² = 0.0016
ug/L
80
70
60
50
40
30
20
10
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

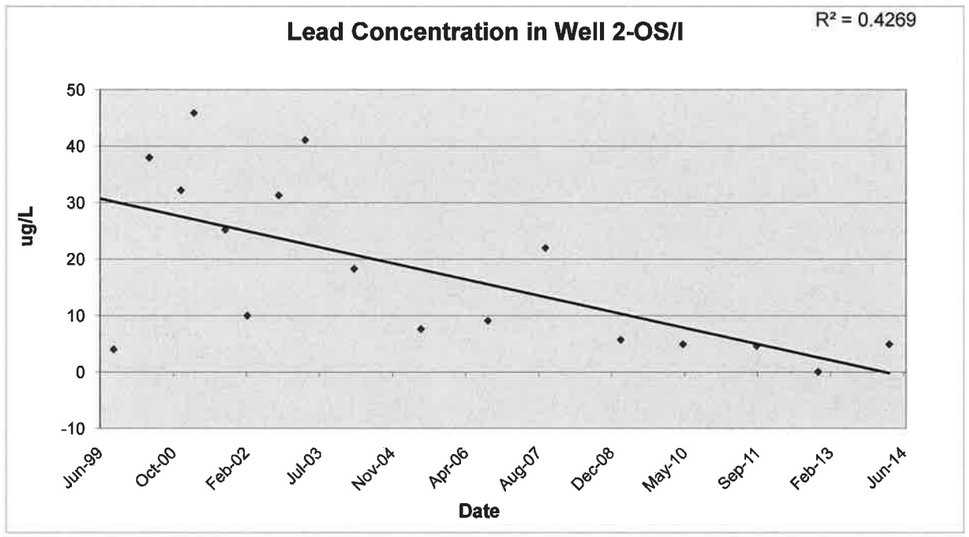

Lead Concentration in Well 2-OS/I
R² = 0.4269
ug/L
50
40
30
20
10
0
-10
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-10
Historical Summary of Groundwater Quality Results - Magnesium (µg/L)
Town of Ramapo Landfill
ARAR Guidance Value = 35,000 (µg/L)
USEPA MCL = Not Available
Part 5 MCL = Not Available

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	3470		4870		32900		3110		3040		3720		2290		5310		4190		4940		5010		5350	
Sep-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		ND	6.5			NA		NA		NA		NA
May-00	21700		20300		27700		15500		14100		24500		8310		18800		10100			NA	5850		12100		17600		1490	B	6100		32900		1760	B	2050	B	6160		2780	B	4260	B	3780	B	4400	B	4990	B	5330	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Dec-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-01	24100		16200		29500		12100		14800		18200		6240		15800		6570			NA	4500	B	13600		17800		5250		30300		**39300**		2090	B	5640		9850		2780	B	4190	B	6120		6360		6830		5550	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-02	23100		6730		23500		12900		16600		18000		6500		14800			NA	6670		7060		12500		13900		3100		17300		**38900**		2160		4170		8460		4340		4510		8880		9230		6480		7840	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Apr-03		NA	19600		25100		12900		15400		18000		9080		16400			NA	5570		4740	B	8230			NA	4390	B	18900		**39500**		1990	B	2940	B	7460		3960	B	4000	B	5060		5890		5300		5480	
Mar-04		NA		NA	21000			NA	13200			NA	18500			NA	32100			NA	11600			NA	8750		34100		**41000**		1420	B	1530	B	5850		2680	B	4230	B	5900		6760		5790		5230	
Jun-05	14000			NA	15600			NA	10700			NA	17100			NA		NA	4510	B		NA	11500			NA	2950	B	31000		**43000**		1950	B	2230	B	8520		5070		2320	B	6170		6520		6030		6250	
Sep-06	28000			NA	18000			NA	13000			NA	18000			NA	**80000**			NA		NA	9800			NA	4200		21000		**44000**		2000		5100		8300		2700		3200		5200		5300		5100		4900	
Oct-07	30000			NA	22000			NA	14000			NA	20000			NA	4600			NA		NA	10000			NA	5100		18000		**39000**		2500		7900		9300		2300		2400		6100		5900		6500		5800	
Mar-09	20000			NA	18000			NA	12000			NA	11000			NA	21000			NA		NA	12000			NA	9100		16000		**40000**		3300		5900		11000		2800		2900		5900			NA	6700		6300	
May-10	22600			NA	14800			NA	11200			NA	15000			NA	**36500**			NA		NA	13500			NA	5770		23600		**40700**		2490		6300		13700		4160		3430		4560			NA	5530		5240	
Sep-11	16200		20300		14600		14700		9700		16000		14600			NA	13500		5100		12800		8000			NA	4100		16900		**41400**		2600		7600		10000		10100		2900		3800		3600			NA		NA
Nov-12	14500			NA	16100			NA	10500			NA	12200			NA	14700			NA			13100			NA	4100		23300		**42900**		1400		1900		9000		2500		3200		4100		6700			NA
Mar-14	17600			NA	18100			NA	12500			NA	12400			NA	12700			NA		NA	14000			NA	4600		29300		**43300**		2200		1600		10400		2300		2500		7500		8000		8200		7300	

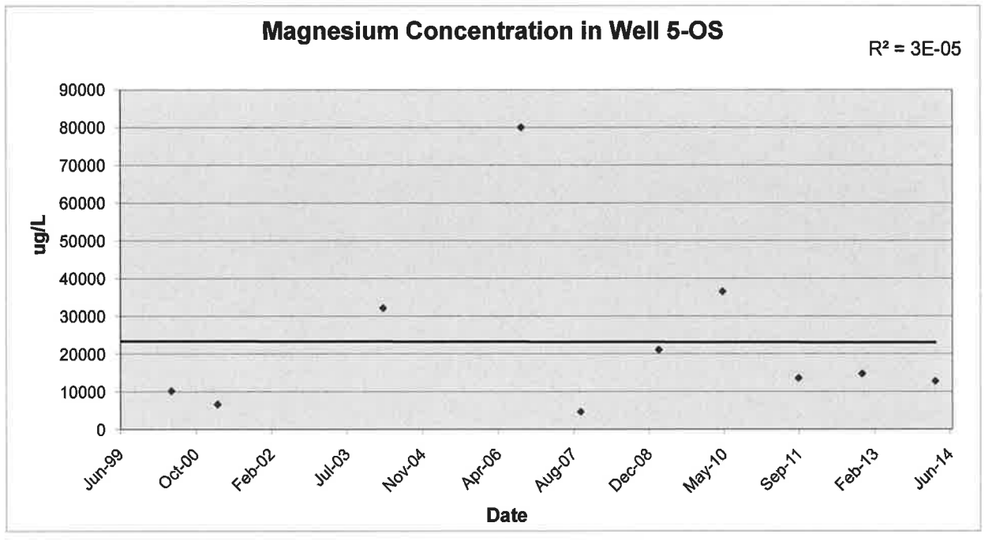
Notes:

Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.


Magnesium Concentration in Well 5-OS
R² = 3E-05
ug/L
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

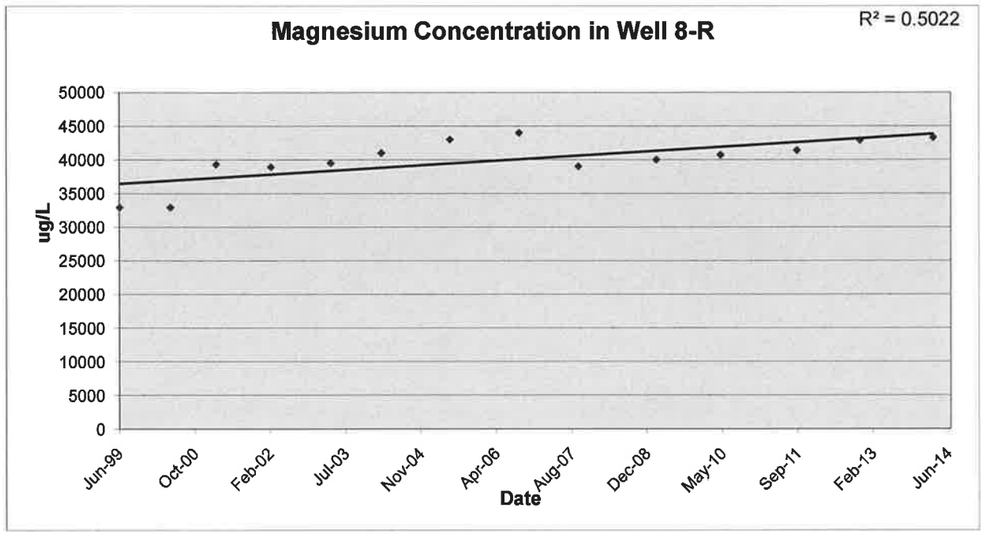

Magnesium Concentration in Well 8-R
R² = 0.5022
ug/L
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-11
Historical Summary of Groundwater Quality Results - Manganese (µg/L)
Town of Ramapo Landfill
ARAR Standard = 300 (µg/L)
USEPA MCL = Not Available
Part 5 MCL = 300 (µg/L)

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**1400**		**1050**		**1900**		15.1		18		**1620**		1.9		6.6		2.5		4.3		40.6		1.6	
Sep-99	**9830**		**599**		**936**		**744**		**577**		**15100**		**1720**		**1180**			NA	27.2		1.2		**755**		**98.5**		**860**		**1570**		**2780**		11.7		5.4		**1320**			ND		ND		NA		NA		NA		NA
May-00	**5740**		236		**4110**		**497**		**5720**		**14200**		**1340**		**1320**		**533**			NA	69.3		**305**		**257**		**525**		**789**		**2640**		40.1		109		**1500**		0.81	B	1.8	B	0.49	B	3.6	B	40.4		< 0.2	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**3820**		**2810**		**2390**		54.6		66.7		**3020**		0.74	B	2.5	B	2.1	B	7.1	B	49.7		< 0.7	
Dec-00	**5810**		158		**3370**		247		**5070**		**13100**		**1930**		**1240**		**1080**			NA	33		**1270**		**360**		**2410**		**2560**		**2120**			NA		NA		NA	3.9	B	< 0.7		9.6	B	47.5		< 0.7	
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	58.9		49.2		**3100**		1.4	B		NA		NA		NA		NA		NA
Mar-01	**4940**		**2070**		**3450**		142		**3750**		**10400**		**440**		**1040**		**323**			NA	13.1	B	**638**	N	**379**	N	**6760**	N	**3430**		**2250**	N	93.2	N	**561**	N	**2860**	N	13.6	B	6	B	2.2	B	4.7	B	49.8		< 0.6	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**5800**		**2990**	N	**2640**		< 0.6		38		**2960**		**4.35**	B	1.96	B	< 0.6		2.67	B	143		< 0.6	
Oct-01	**5310**		**909**		**3830**		106		**2040**		**12700**		**839**		**1070**			NA	2.7	B	< 2.2		**668**		**375**		**6340**		**1760**		**2060**		77.6		4.9	B	**3080**		< 2.2		4.7	B		NA		NA		NA		NA
Mar-02	**6240**		104		**2300**		**616**		**2800**		**9950**		**759**		**1110**			NA	132		154		**592**		**292**		**1620**		**3670**		**1930**		24.7		44.6		**2490**		< 1.4		6	B	< 1.4		6.9	B	68.2		< 1.4	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	**3390**		**2390**		**2160**		19		75.8		**2740**		< 1.9		6.9	B	< 1.9		4.6	B	77.4		< 1.9	
Oct-02	**8160**	E	**1650**	E	**6940**	E	**404**	E	**13400**	E	**19400**	E	**3790**	E	**953**	E		NA	3.7	B,E	21.7	E	**1730**	E		NA	**6950**	E	**2980**	E	**1980**	E	10.5	E	4.1	B,E	**2880**	E	2.1	B,E	3.3	B,E	**7.4**	B	< 1.9		61.7		3.4	B
Apr-03		NA	177		**3100**		157		**24800**		**12100**		**620**		**1180**			NA	63.6		29.5		124			NA	**894**		**3140**		**2050**		35.6		52.3		**2630**		< 0.8		3.9	B	< 0.8		6.1	B	80		< 0.8	
Mar-04		NA		NA	**2300**			NA	**7200**			NA	**338**			NA	**2040**			NA		NA	**2140**			NA	**1590**		**4650**		**2150**		4.4	B	19		**1980**		< 0.9		< 0.9		< 0.9		3.3	B	88		< 0.9	
Jun-05	**4720**			NA	**778**			NA	**6450**			NA	**700**			NA		NA	13.6			NA	222			NA	**691**		**3090**		**2190**		27.7		11.6		**2730**		< 2.1		< 2.1		< 2.1		6.5	B	86		< 2.1	
Sep-06	**2800**			NA	**1900**			NA	**9200**			NA	**860**			NA	**5100**			NA		NA	**1300**			NA	110		**1900**		**2200**		51		290		**2800**		0.75	J	1.4	J	0.62	J	3.2	J	25	J	< 50	
Oct-07	**5100**			NA	**3500**			NA	**4400**			NA	**2700**			NA	14	J		NA		NA	**920**			NA	**2000**		**2200**		**1900**		140		**560**		**2900**		< 50		5.6	J	< 50		3.8	J	96		< 50	
Mar-09	**9000**			NA	**2200**			NA	**14000**			NA	**400**			NA	**1000**			NA		NA	**450**			NA	**610**		**3100**		**1900**		150		290		**3700**		< 50		1.8	J	< 50			NA	140		< 50	
May-10	**14800**	B		NA	**1680**			NA	**2460**	B		NA	223			NA	**2230**			NA		NA	**1710**	B		NA	**399**	B	**4590**	B	**1960**	B	90.1	B	**392**	B	**4030**	B	1.2	J,B	3.1	B	0.3	J,B		NA	110	B	22	B
Sep-11	**8300**	B	**1500**	B	**780**	B	**530**	B	**4500**	B	**41400**	B	160	B		NA	**830**	B	26	B	**640**	B	**1200**	B		NA	**700**	B	**3500**	B	**2100**	B	110	B	**590**	B	**2700**	B	2.1	J,B	2.4	J,B	1.8	J,B	1.5	J,B		NA		NA
Nov-12	**11600**	B		NA	**980**	B		NA	**2800**	B		NA	**560**	B		NA	**660**	B		NA		NA	**1400**	B		NA	280	B	**3500**	B	**2000**	B	19	B	3.8	B	**2300**	B	1.3	J,B	2.6	J,B	0.89	J,B	0.75	J,B	200	B		NA
Mar-14	**16900**	B		NA	**1900**	B		NA	**2900**	B		NA	**740**	B		NA	**620**	B		NA		NA	**1500**			NA	100	B	**3300**	B	**1900**	B	51		4		**3100**		1.6	J	41			ND		ND	130			ND

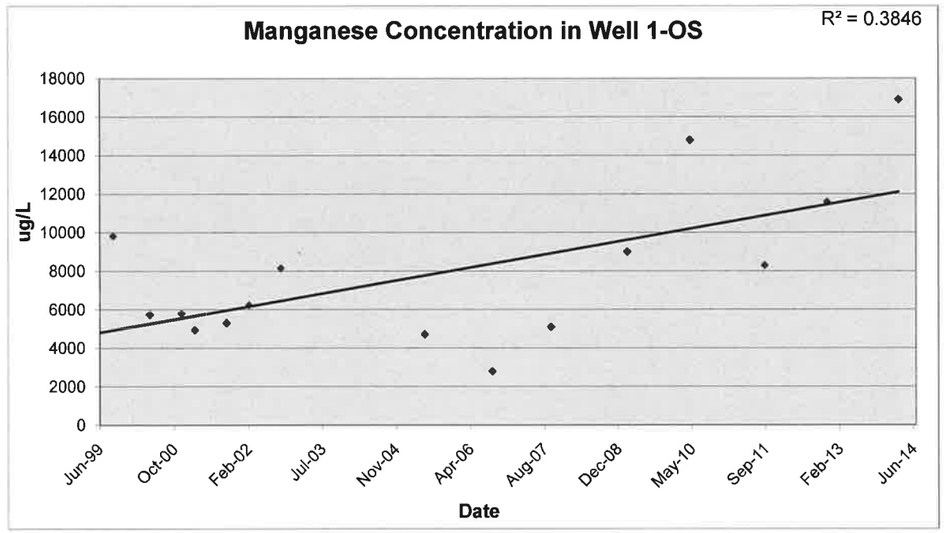
Notes:

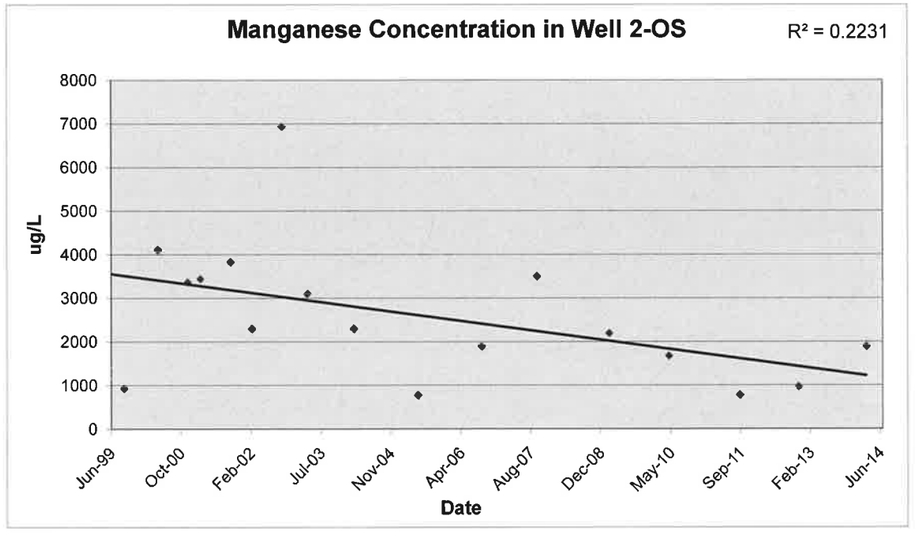
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

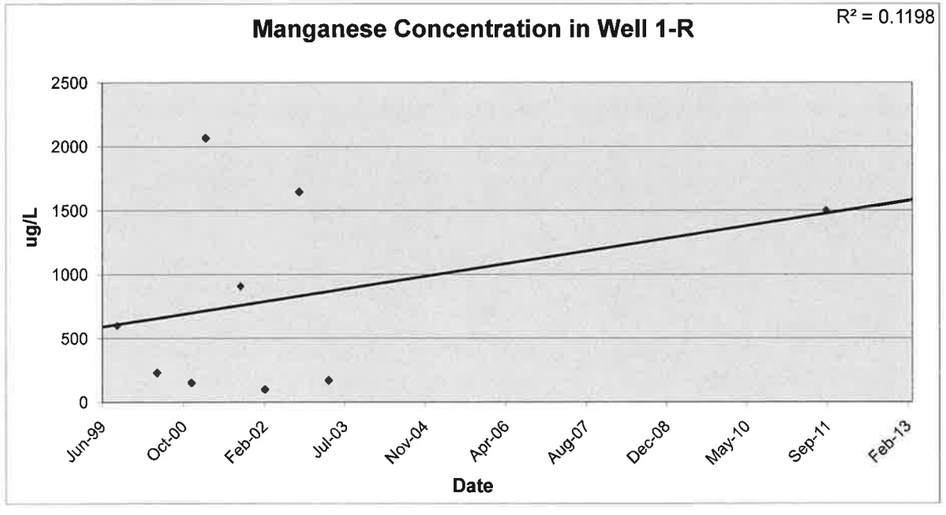
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

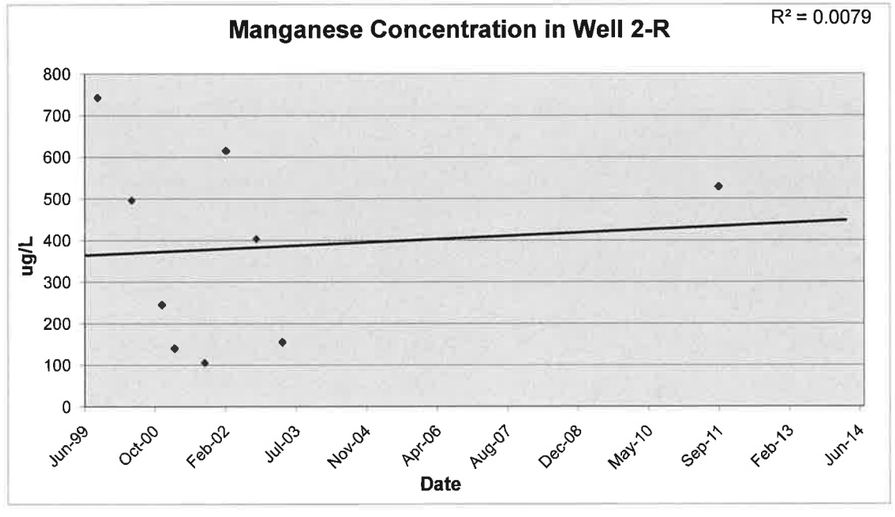
Laboratory Qualifier Definitions

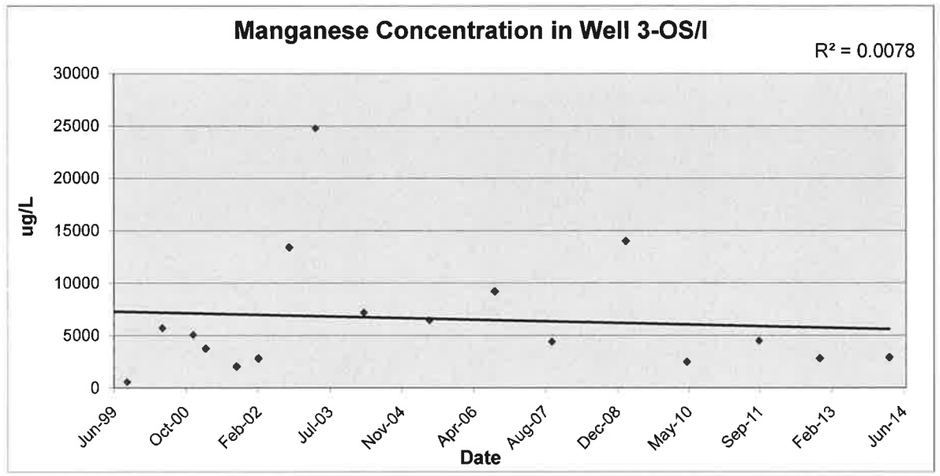
B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
E = Indicates an estimated value because of the possible presence of interference.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

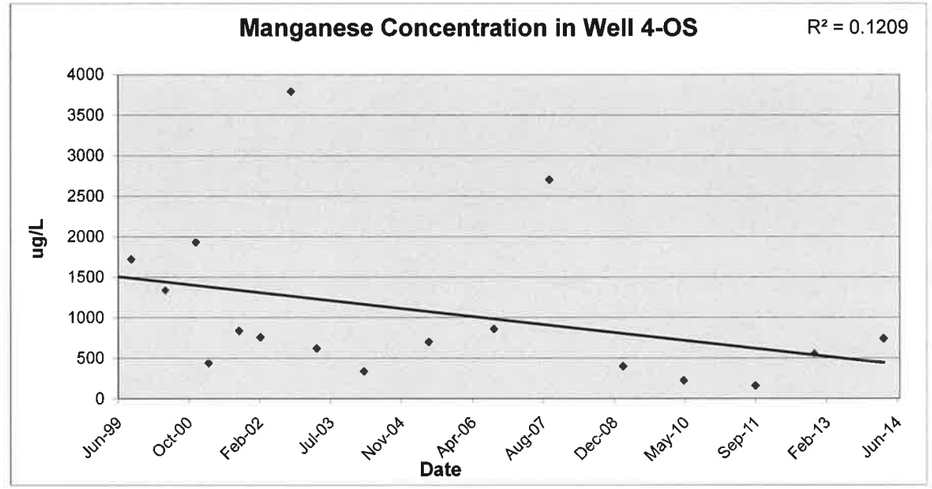

Manganese Concentration in Well 1-OS
R² = 0.3846
ug/L
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

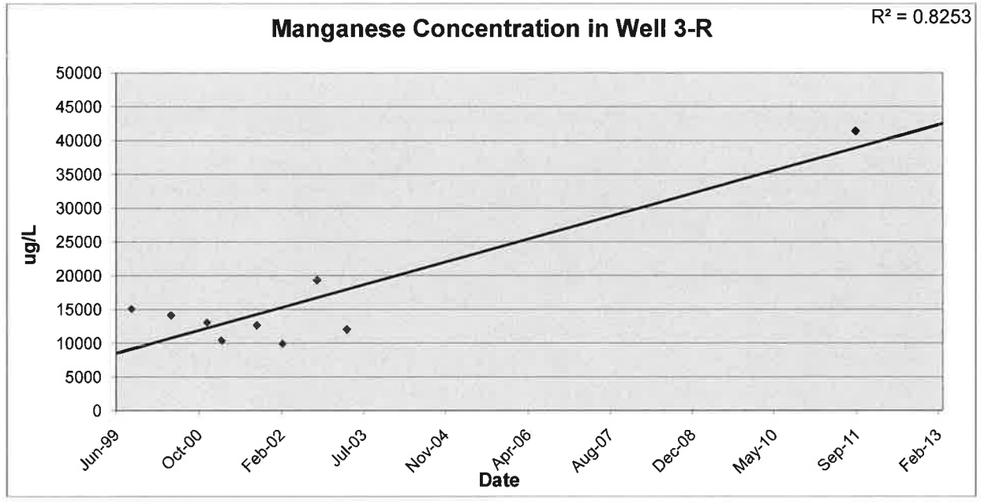

Manganese Concentration in Well 2-OS
R² = 0.2231
ug/L
8000
7000
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

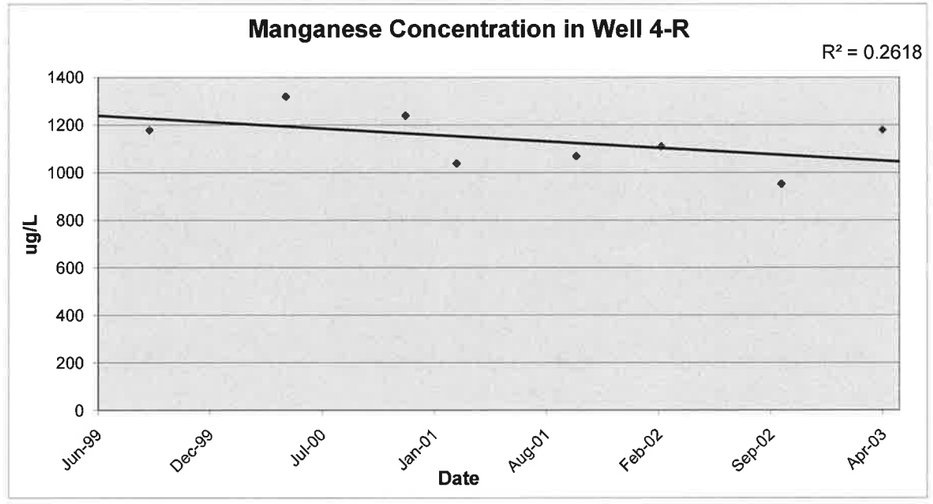

Manganese Concentration in Well 1-R
R² = 0.1198
ug/L
2500
2000
1500
1000
500
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date

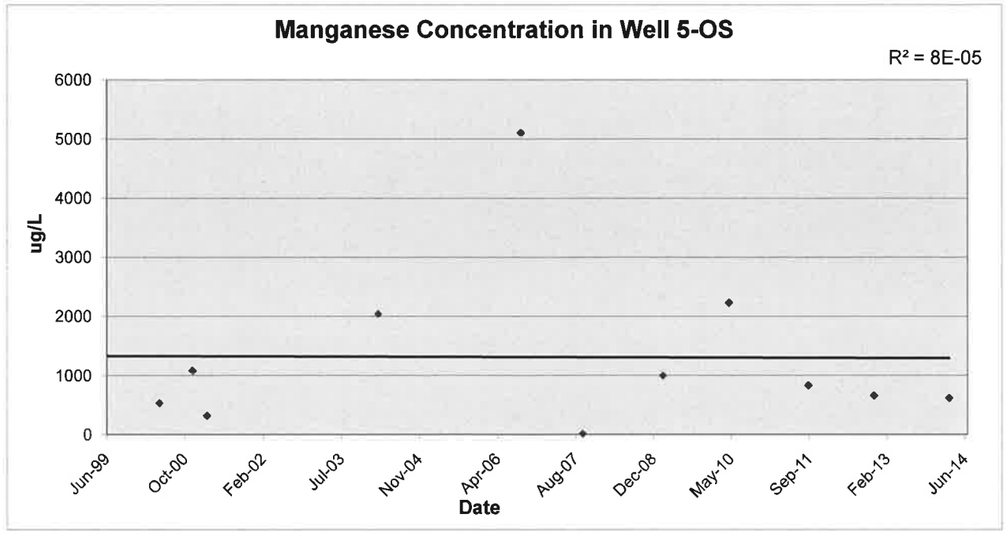

Manganese Concentration in Well 2-R
R² = 0.0079
ug/L
800
700
600
500
400
300
200
100
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

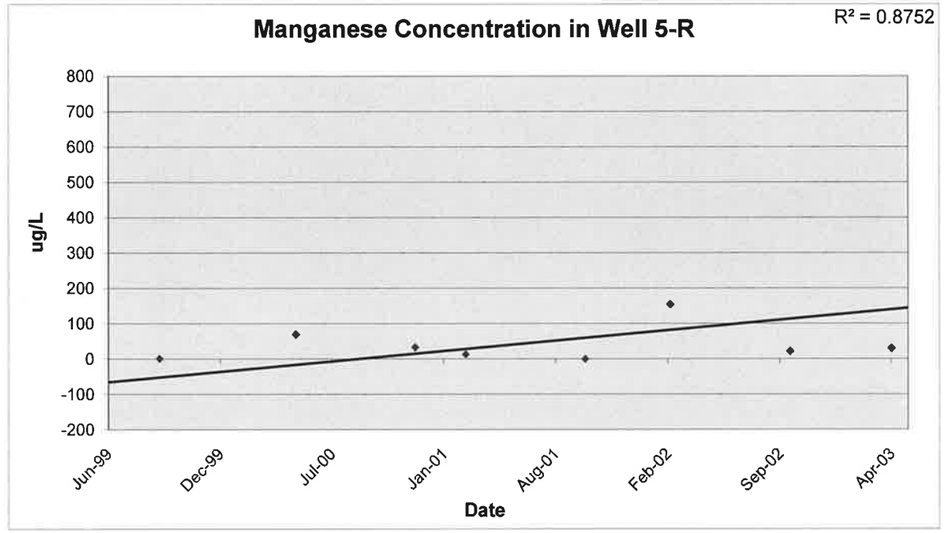

Manganese Concentration in Well 3-OS/I
R² = 0.0078
ug/L
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

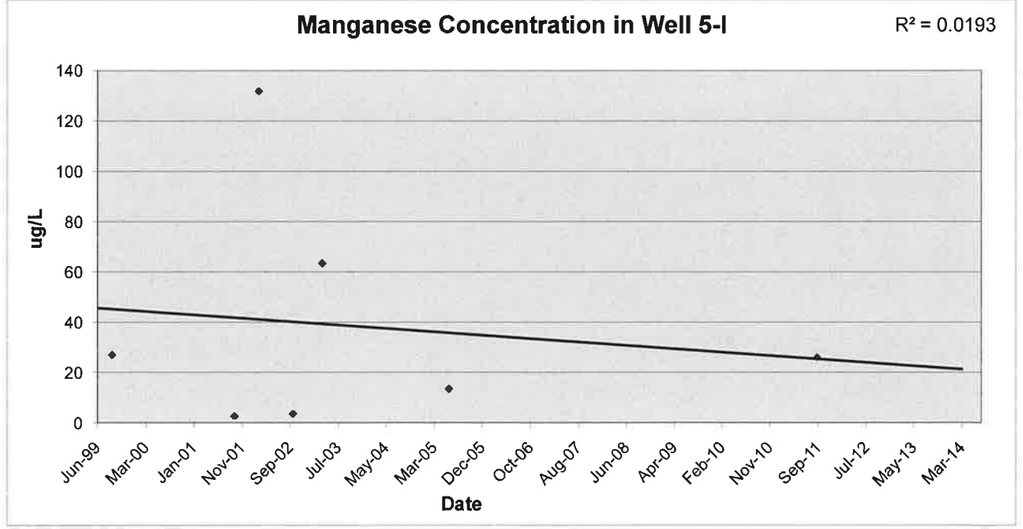

Manganese Concentration in Well 4-OS
R² = 0.1209
ug/L
4000
3500
3000
2500
2000
1500
1000
500
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

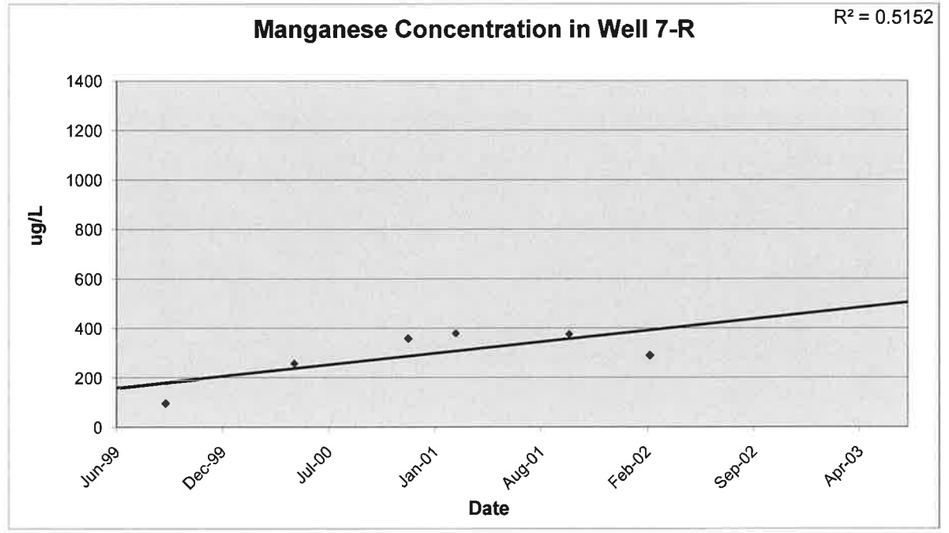

Manganese Concentration in Well 3-R
R² = 0.8253
ug/L
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date

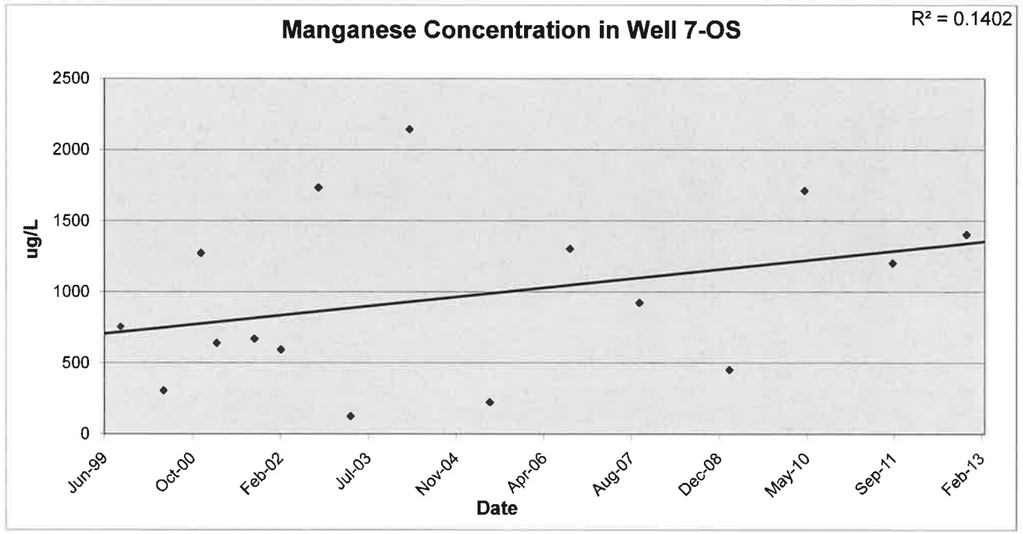

Manganese Concentration in Well 4-R
R² = 0.2618
ug/L
1400
1200
1000
800
600
400
200
0
Jun-99
Dec-99
Jul-00
Jan-01
Aug-01
Feb-02
Sep-02
Apr-03
Date

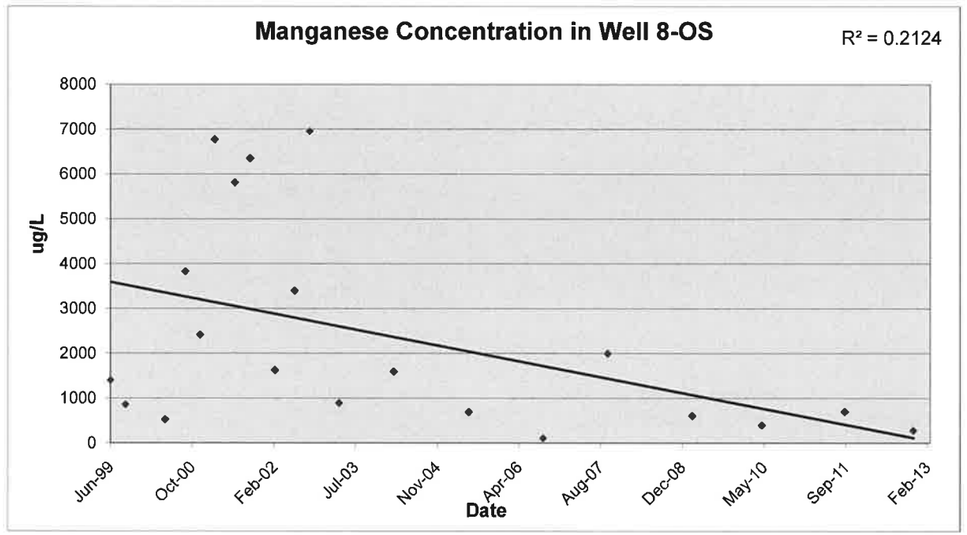

Manganese Concentration in Well 5-OS
R² = 8E-05
ug/L
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

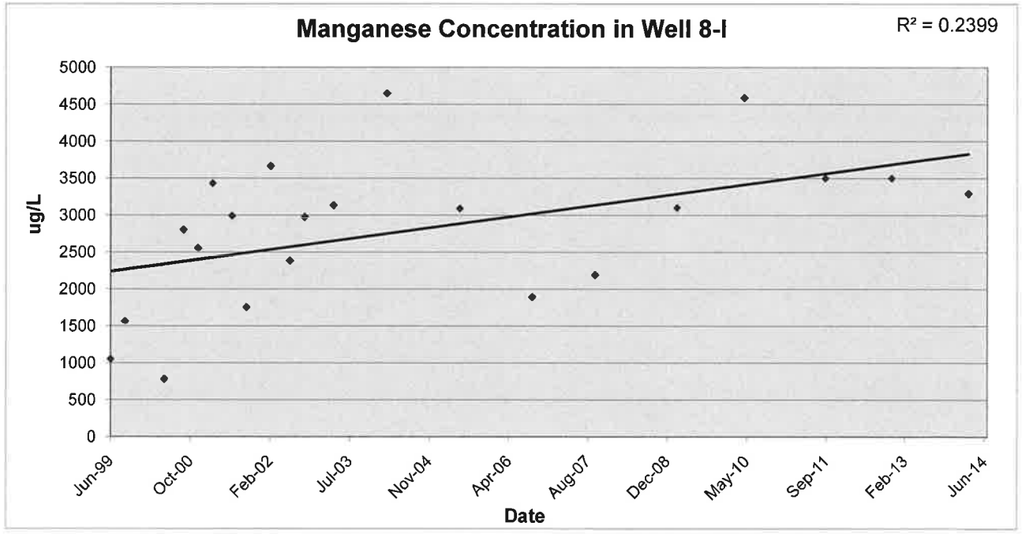

Manganese Concentration in Well 5-R
R² = 0.8752
ug/L
800
700
600
500
400
300
200
100
0
-100
-200
Jun-99
Dec-99
Jul-00
Jan-01
Aug-01
Feb-02
Sep-02
Apr-03
Date

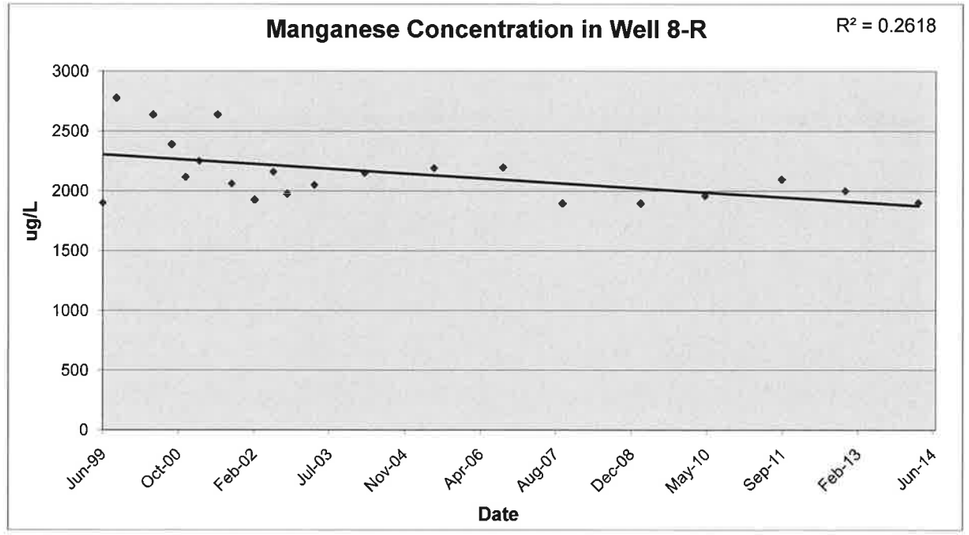

Manganese Concentration in Well 5-I
R² = 0.0193
ug/L
140
120
100
80
60
40
20
0
Jun-99
Mar-00
Jan-01
Nov-01
Sep-02
Jul-03
May-04
Mar-05
Dec-05
Oct-06
Aug-07
Jun-08
Apr-09
Feb-10
Nov-10
Sep-11
Jul-12
May-13
Mar-14
Date

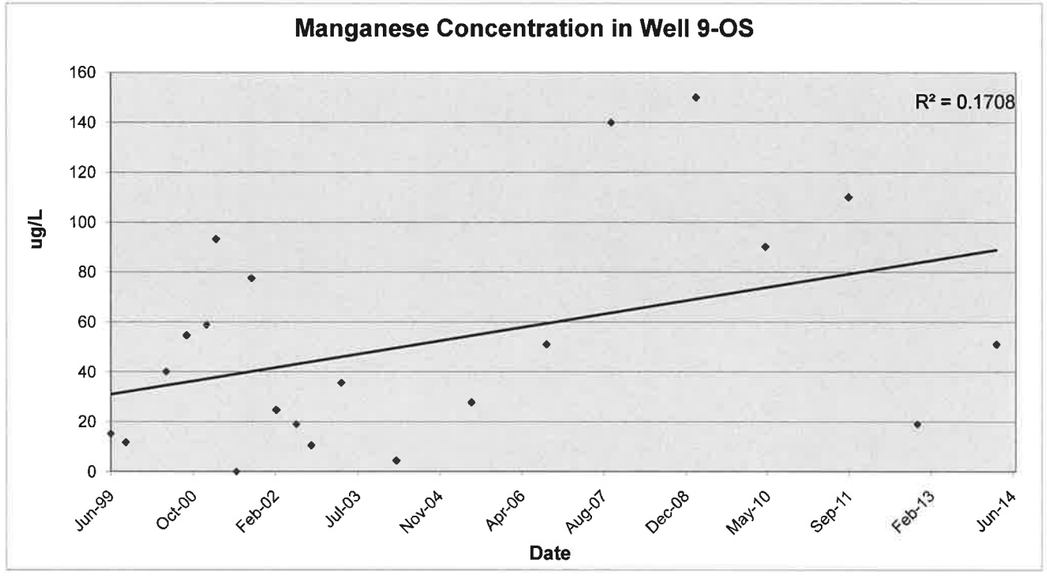

Manganese Concentration in Well 7-R
R² = 0.5152
ug/L
1400
1200
1000
800
600
400
200
0
Jun-99
Dec-99
Jul-00
Jan-01
Aug-01
Feb-02
Sep-02
Apr-03
Date

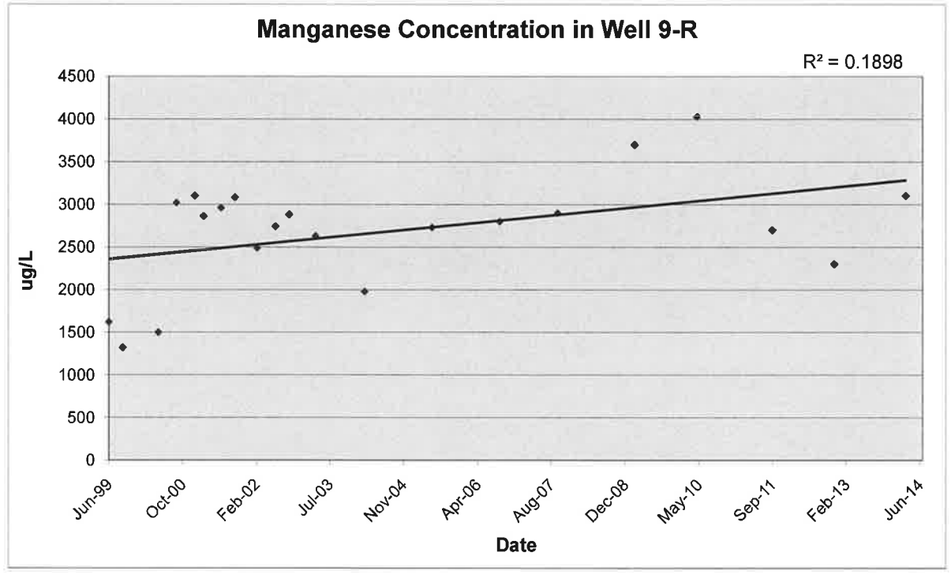

Manganese Concentration in Well 7-OS
R² = 0.1402
ug/L
2500
2000
1500
1000
500
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date

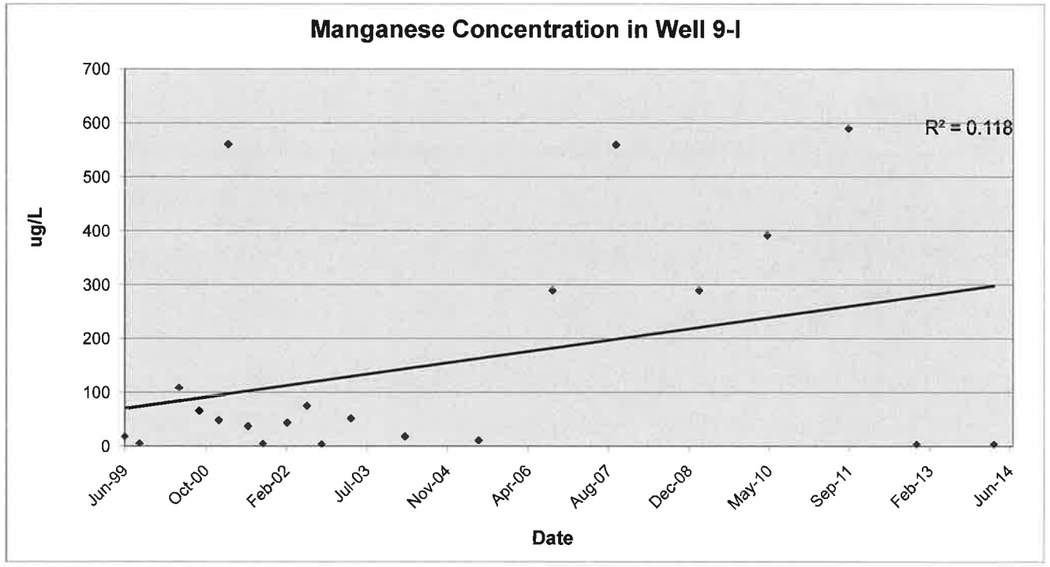

Manganese Concentration in Well 8-OS
R² = 0.2124
ug/L
8000
7000
6000
5000
4000
3000
2000
1000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Date


Manganese Concentration in Well 8-I
R² = 0.2399
ug/L
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Manganese Concentration in Well 8-R
R² = 0.2618
ug/L
3000
2500
2000
1500
1000
500
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Manganese Concentration in Well 9-OS
R² = 0.1708
ug/L
0
20
40
60
80
100
120
140
160
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Manganese Concentration in Well 9-R
R² = 0.1898
ug/L
0
500
1000
1500
2000
2500
3000
3500
4000
4500
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Manganese Concentration in Well 9-I
R² = 0.118
ug/L
0
100
200
300
400
500
600
700
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

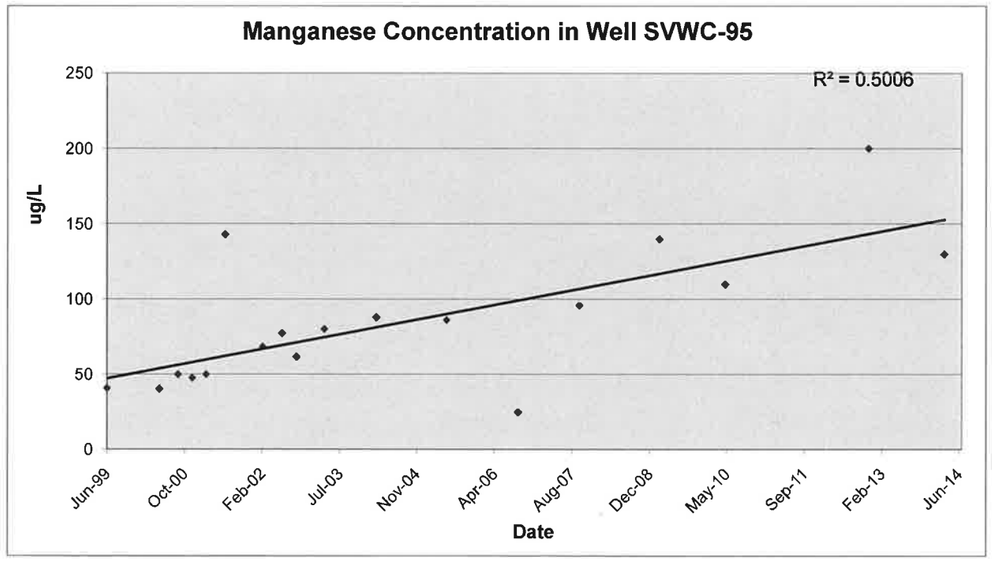

Manganese Concentration in Well SVWC-95
R² = 0.5006
ug/L
0
50
100
150
200
250
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-12
Historical Summary of Groundwater Quality Results - Nickel (µg/L)
Town of Ramapo Landfill
ARAR Standard = 100 (µg/L)
USEPA MCL = Not Available
Part 5 MCL = Not Available

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	1.1		34		15.7			ND	2.2		6.6		1.1		1.2		2.7		4.1		3.3		3.8	
Sep-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
May-00	**140**		16.2	B	**215**		4.1	B	**156**		73.7		22.4	B	1.5	B	35	B		NA	8.2	B	9.4	B	1.9	B	2.2	B	5.9	B	16.2	B	2.4	B	4.6	B	3.7	B	< 1.1		< 1.1		2.6	B	< 1.1		< 1.1		1.3	B
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Dec-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Mar-01	82.4		27.7	B	**116**		< 1.7		68.7		28.2	B	8.8	B	1.9	B	19.5	B		NA	2.3	B	10.3	B	2.2	B	19.4	B	40.4		22.6	B	4.7	B	18.2	B	5.7	B	< 1.7		< 1.7		< 1.7		< 1.7		< 1.7		< 1.7	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Oct-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Mar-02	28.8	B	38.2	B	34.9	B	9.5	B	**128**		8.6	B	5.4	B	< 2.8			NA	5	B	11.7	B	8.6	B	< 2.8		11.1	B	7	B	20.9	B	< 2.8		< 2.8		< 2.8		< 2.8		< 2.8		< 2.8		< 2.8		< 2.8		< 2.8	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Oct-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Apr-03		NA	2.2	B	**108**		3.9	B	**932**		5.1	B	14.8	B	< 1.9			NA	2.7	B	2.1	B	3.5	B		NA	6.8	B	14.3	B	15	B	< 1.9		< 2.7	B	< 1.9		< 1.9		< 1.9		< 1.9		< 1.9		2.9	B	< 1.9	
Mar-04		NA		NA	56.8			NA	**434**			NA	7.3	B		NA	**132**	E		NA		NA	41.8			NA	7.9	B	29.4	B	15	B	< 1.7		< 1.7		< 1.7		< 1.7		< 1.7		42.7		< 1.7		1.9	B	< 1.7	
Jun-05	9.2	B		NA	52.1			NA	**1460**			NA	87.8			NA		NA	< 2.3			NA	< 2.3			NA	61.9		15.6	B	11.5	B	< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3	
Sep-06	**270**			NA	80			NA	**1300**			NA	40	J		NA	**370**			NA		NA	26	J		NA	5.8	J	20	J	36	J	6.7	J	18	J	1.8	J	50		< 50		< 50		< 50		1.4	J	< 50	
Oct-07	**750**			NA	**150**			NA	**730**			NA	68			NA	14	J		NA		NA	26	J		NA	14	J	24	J	15	J	34	J	31	J	3.2	J	< 50		7	J	5.5	J	< 50		1.2	J	< 50	
Mar-09	**640**			NA	**490**			NA	**810**			NA	44	J		NA	89			NA		NA	11	J		NA	17	J	18	J	15	J	28	J	19	J	2.5	J	< 50		< 50		< 50			NA	< 50		< 50	
May-10	**527**			NA	**236**			NA	**492**			NA	61.5			NA	**147**			NA		NA	28.5			NA	10.3		13.7		10.6		13.4		23.4		3.4	J	< 10		< 10		< 10			NA	< 10		7.5	J
Sep-11	**880**		**130**		**410**		4.3	J	**1600**		**260**		34			NA	56		4.4	J	61		37			NA	28		6	J	10		20		32		2.9	J	< 10		< 10		< 10		<10			NA		NA
Nov-12	**180**			NA	**170**			NA	**650**			NA	37			NA	67			NA		NA	29			NA	11		12		10		7.2	J	< 10		2.9	J	< 10		< 10		< 10		< 10			NA
Mar-14	**440**			NA	**240**			NA	**400**			NA	42			NA	47			NA		NA	36			NA	5.9	J	13		11		15			ND	2	J		ND		ND		ND		ND		ND	6.7	J

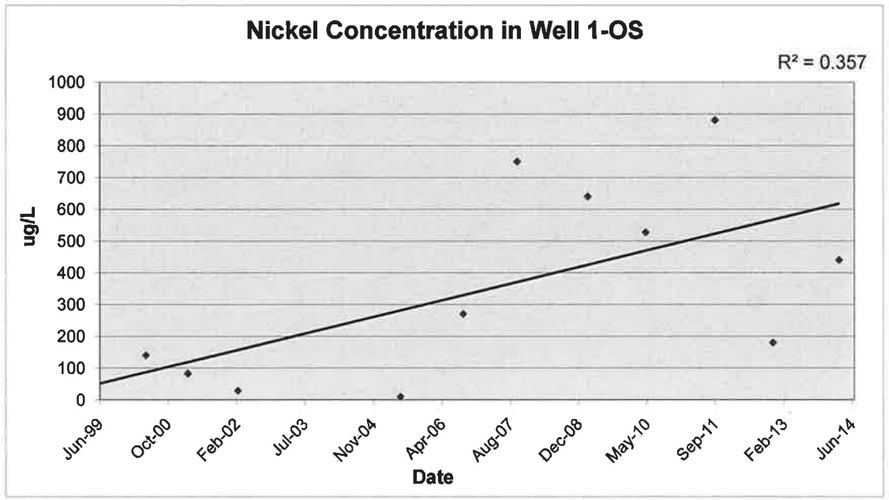
Notes:

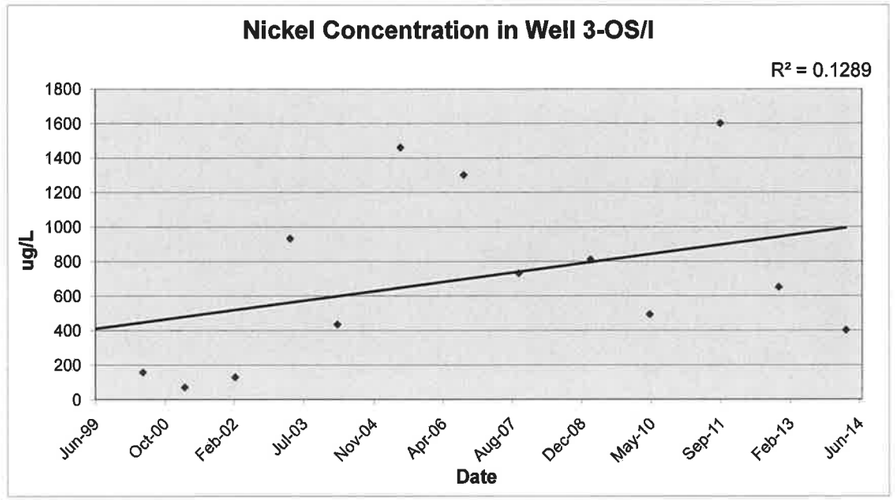
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

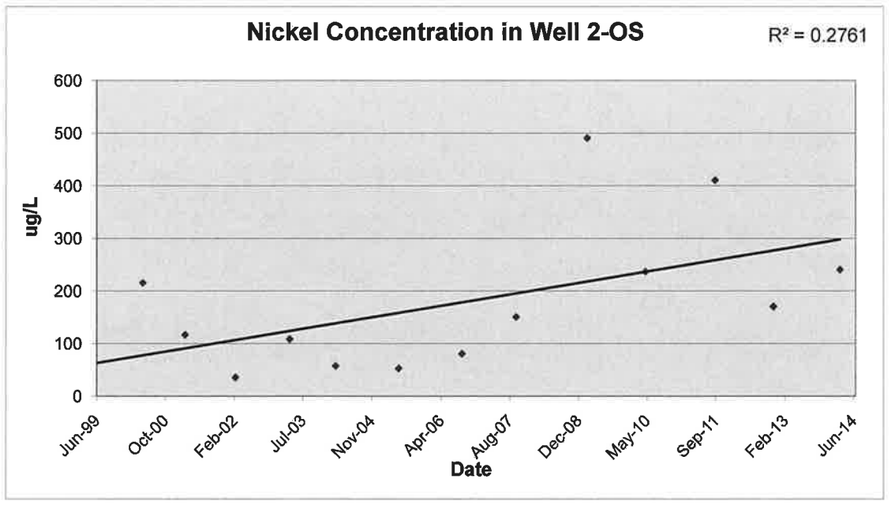
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

Laboratory Qualifier Definitions

B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
E = Indicates an estimated value because of the possible presence of interference.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.


Nickel Concentration in Well 1-OS
R² = 0.357
ug/L
1000
900
800
700
600
500
400
300
200
100
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Nickel Concentration in Well 3-OS/I
R² = 0.1289
ug/L
1800
1600
1400
1200
1000
800
600
400
200
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Nickel Concentration in Well 2-OS
R² = 0.2761
ug/L
600
500
400
300
200
100
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

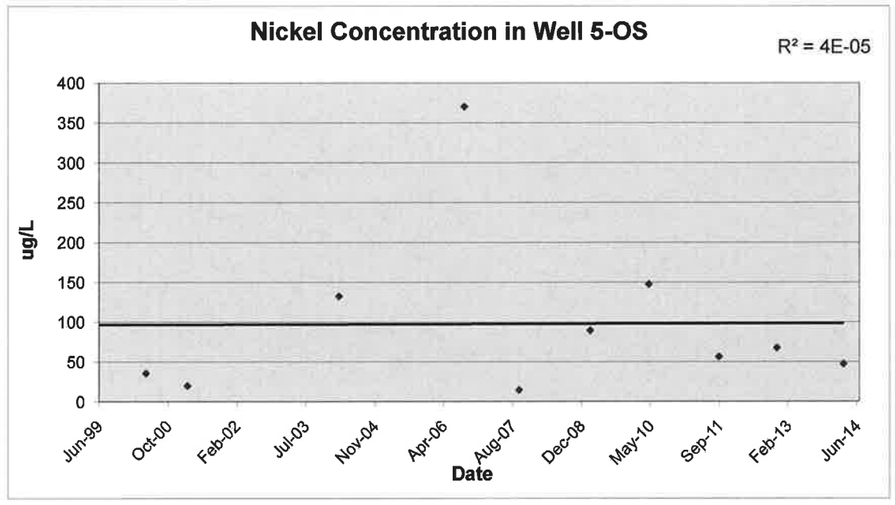

Nickel Concentration in Well 5-OS
R² = 4E-05
ug/L
400
350
300
250
200
150
100
50
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-13
Historical Summary of Groundwater Quality Results - Sodium (µg/L)
Town of Ramapo Landfill
ARAR Standard = 20,000 (µg/L)
USEPA MCL = Not Available
Part 5 MCL = (1)

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	4980		16100		**43400**		5500		5610		13100		4300		13200		31600		**33400**		32900		30400	
Sep-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
May-00	**36400**		**29000**		9960		10100		**41600**		**43300**		**30500**		13800		5530			NA	4480		19800		13900		3480	B	15000		**71100**		5080		4400	B	14300		5430		9110		31400		32500		28800		35900	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Dec-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-01	**42100**		19100		9460		7760		**38700**		**34900**		**24100**		13700		4770	B		NA	3740	B	16900		11300		14200		**90500**		**52400**		3670	B	4950	B	**27500**		6130		9330		36000		38700		38500		35200	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-02	**47800**		**69500**		9450		7240		**29800**		**32300**		**23500**		9780			NA	4480		4860		12500		10500		5150		**56200**		**74400**		5120		6060		**22200**		7160		8720		56000	E	48900	E	**41900**	E	43500	E
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Apr-03		NA	**24200**		7130		7670		**31500**		**38000**		**26200**		12900			NA	4540	B	4190	B	13100			NA	10900		**46500**		**52200**		4530	B	5830		**20600**		8690		9000		39800		43000		34700		4040	
Mar-04		NA		NA	11000			NA	**22600**	E		NA	**54600**			NA	8870			NA		NA	5000	E		NA	17100	E	**110000**	E	**47300**	E	3220	B,E	3690	B	14600	E	5410	E	7730	E	33800	E	35600	E	27700	E	30100	E
Jun-05	**37100**	E		NA	8680	E		NA	**29100**	E		NA	**20300**			NA		NA	2880	B,E		NA	9190			NA	8400		**124000**		**42200**		4160	B	5530		**22500**		11500		5400		44100		42300		41700		47400	
Sep-06	**62000**			NA	11000			NA	**29000**			NA	**33000**			NA	14000			NA		NA	7000			NA	**28000**		**73000**		**46000**		5.3		9400		**28000**		14000		7400		52000		47000		36000		47000	
Oct-07	**76000**			NA	12000			NA	**23000**			NA	**24000**			NA	4100			NA		NA	7700			NA	15000		**55000**		**48000**		7200		9800		**35000**		12000		6100		60000		52000		53000		56000	
Mar-09	**97000**			NA	11000			NA	**36000**			NA	**48000**			NA	8100			NA		NA	9700			NA	**41000**		**50000**		**42000**		8300		15000		**44000**		12000		7400		52000			NA	49000		54000	
May-10	**111000**			NA	9300			NA	**36900**			NA	**47900**			NA	8000			NA		NA	11700			NA	**30700**		**75600**		**41400**		8200		14200		**59300**		18600		8600		41600			NA	47200		48600	
Sep-11	**101000**		**23900**	B	10900		9700		**57200**		**59000**		**60200**			NA	7300		4600		6200	B	12500			NA	19800		**56800**	B	**34600**	B	11200	B	17100	B	**48900**	B	68500	B	6900	B	45600	B	40400	B		NA		NA
Nov-12	**102000**			NA	13100			NA	**36300**			NA	**64500**			NA	7300			NA		NA	15900			NA	10800		**97900**		**37800**		9800		11400		**45500**		32500		6800		45100		45900		42500			NA
Mar-14	**117000**	B		NA	10500	B		NA	**35300**			NA	**71900**			NA	7000			NA		NA	14900			NA	**24500**	B	**91800**	B	**37800**		5500		13000		**37600**		25600	B	7200		54100	B	50100	B	48600	B	56100	B

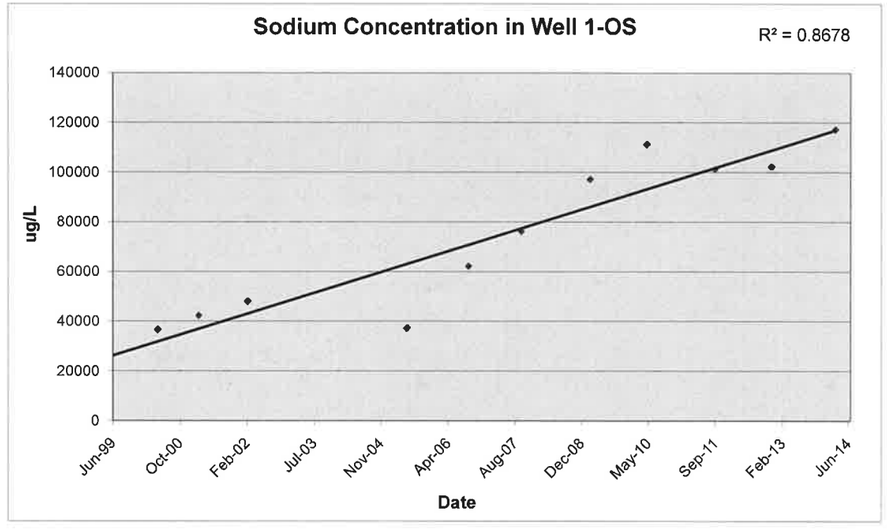
Notes:
(1) While there is no Part 5 MCL for sodium, people on severely restricted diets should consult with the County Health Department for guidance if the reported sodium concentration is higher than 20,000 mg/L.

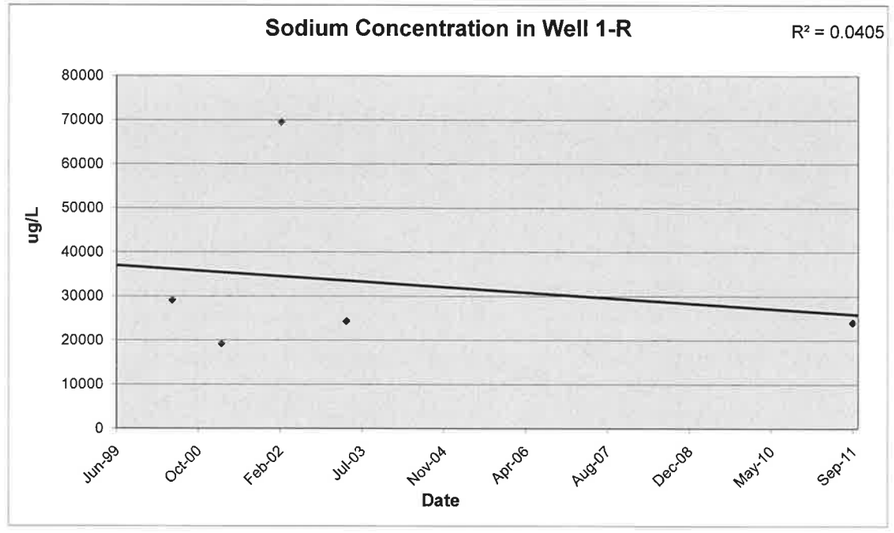
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

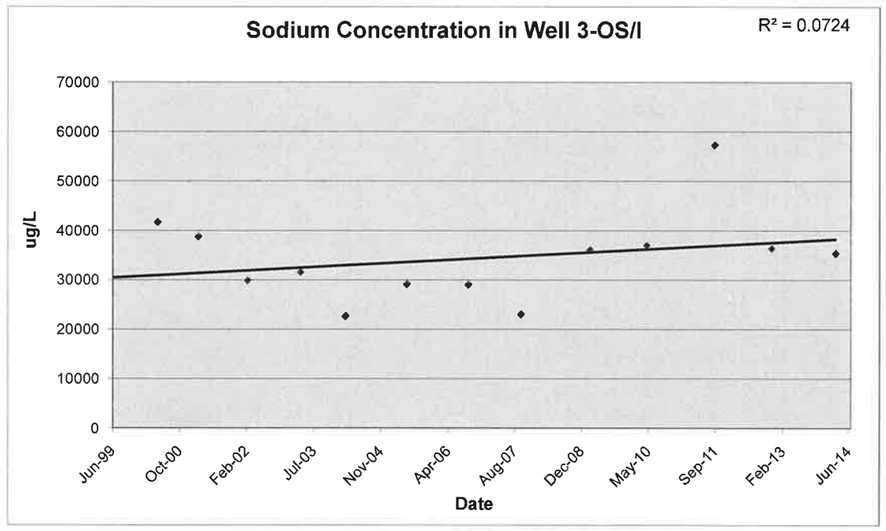
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

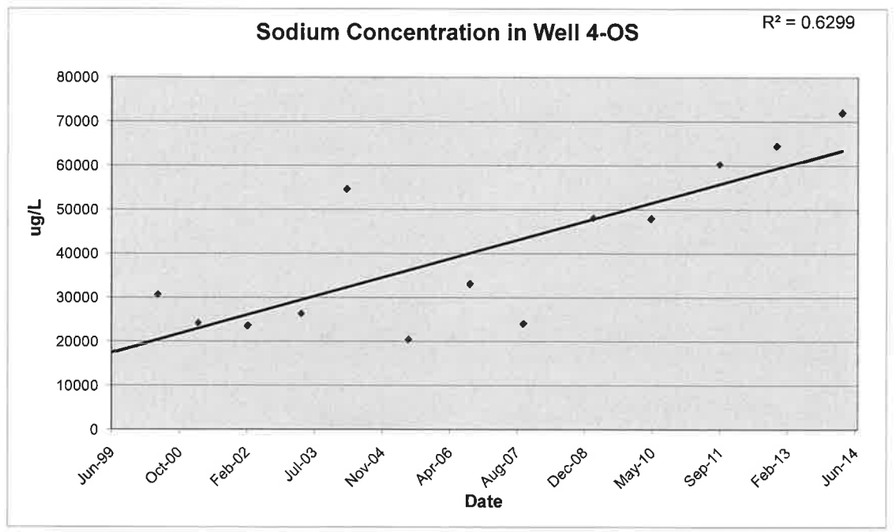
Laboratory Qualifier Definitions

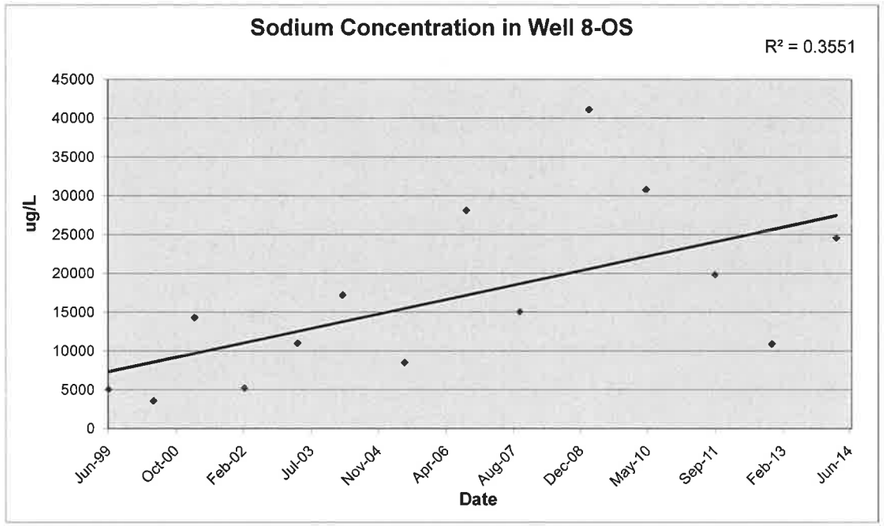
B = Compound was found in the blank and the sample.
E = Indicates an estimated value because of the possible presence of interference.

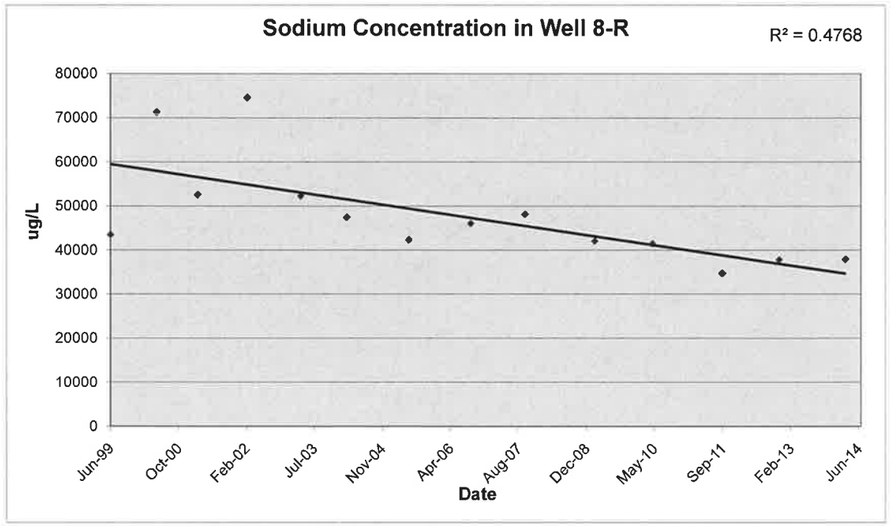

Sodium Concentration in Well 1-OS
R² = 0.8678
ug/L
140000
120000
100000
80000
60000
40000
20000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

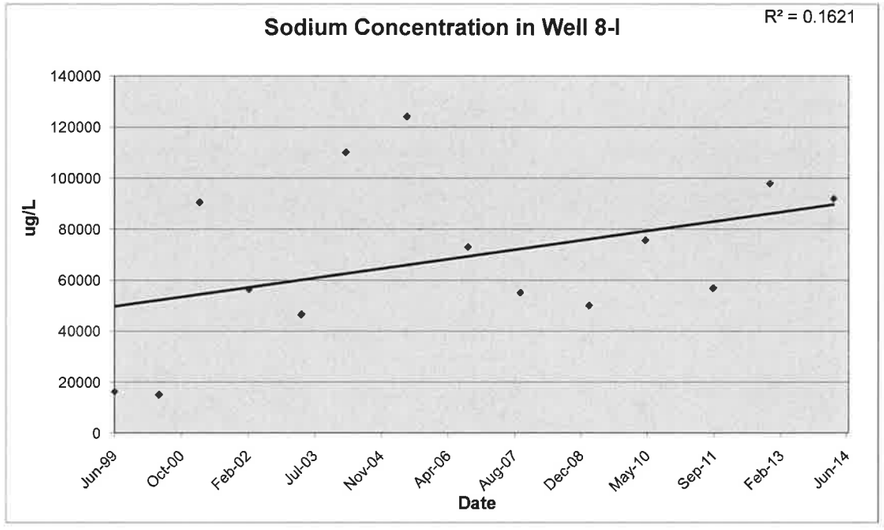

Sodium Concentration in Well 1-R
R² = 0.0405
ug/L
80000
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Date

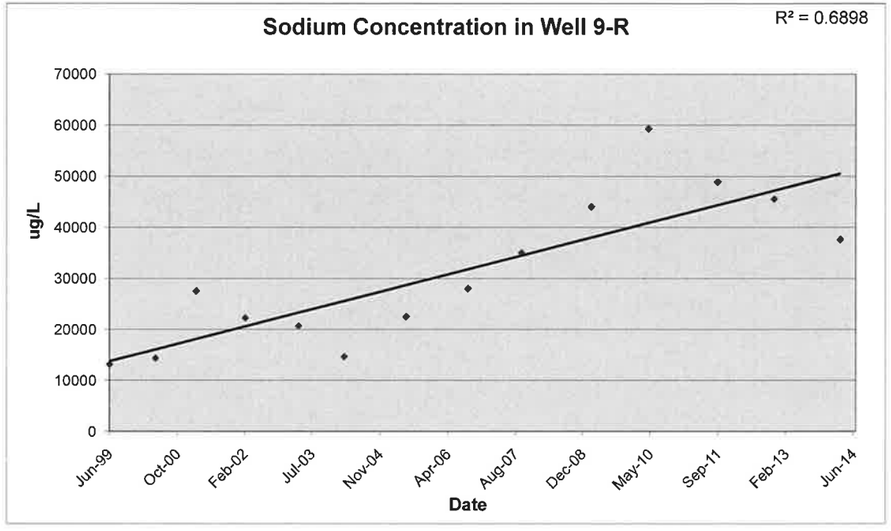

Sodium Concentration in Well 3-OS/I
R² = 0.0724
ug/L
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

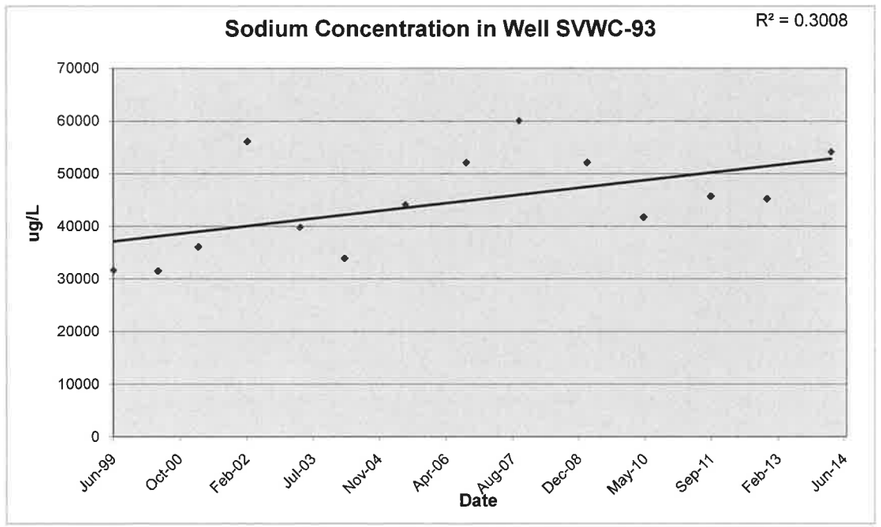

Sodium Concentration in Well 4-OS
R² = 0.6299
ug/L
80000
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

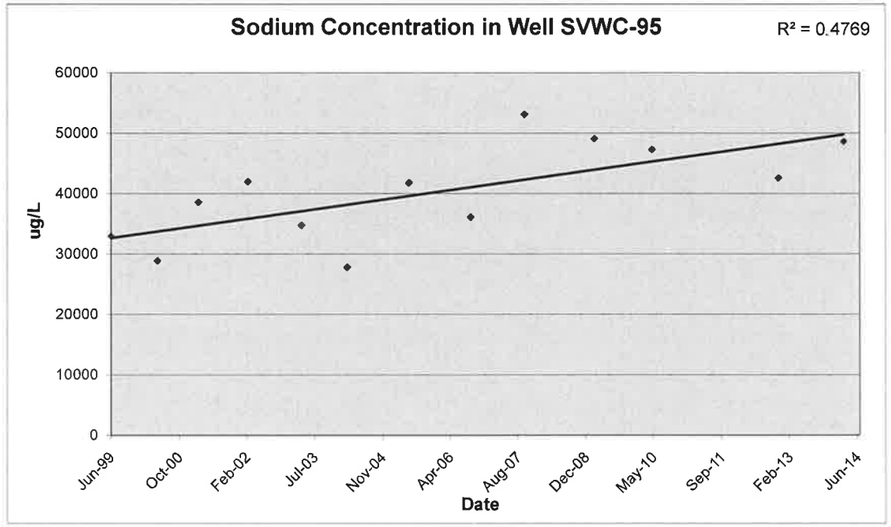

Sodium Concentration in Well 8-OS
R² = 0.3551
ug/L
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

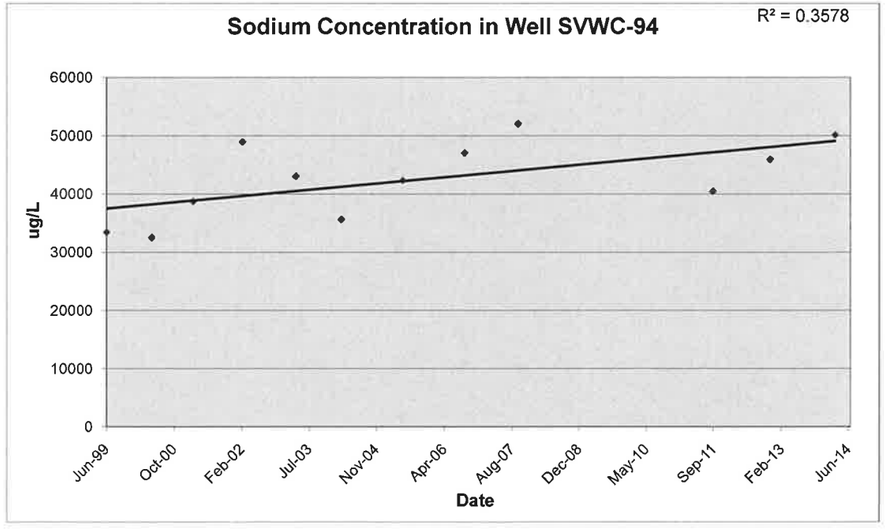

Sodium Concentration in Well 8-R
R² = 0.4768
ug/L
80000
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Sodium Concentration in Well 8-I
R² = 0.1621
ug/L
140000
120000
100000
80000
60000
40000
20000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Sodium Concentration in Well 9-R
R² = 0.6898
ug/L
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Sodium Concentration in Well SVWC-93
R² = 0.3008
ug/L
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Sodium Concentration in Well SVWC-95
R² = 0.4769
ug/L
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Sodium Concentration in Well SVWC-94
R² = 0.3578
ug/L
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

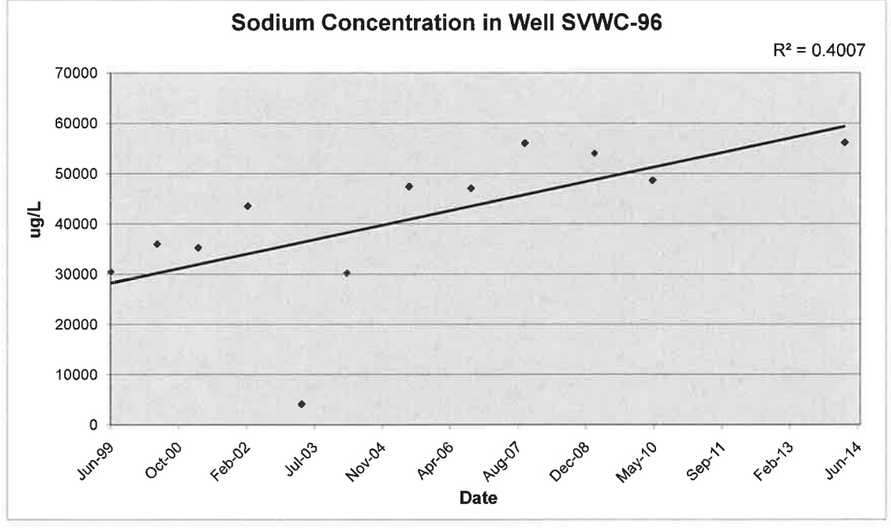

Sodium Concentration in Well SVWC-96
R² = 0.4007
ug/L
70000
60000
50000
40000
30000
20000
10000
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

Table C-14
Historical Summary of Groundwater Quality Results - Thallium (µg/L)
Town of Ramapo Landfill
ARAR Standard = 0.5 (µg/L)
USEPA MCL = 2 (µg/L)
Part 5 MCL = 2 (µg/L)

Well ID	Well 1-OS		Well 1-R		Well 2-OS		Well 2-R		Well 3-OS/I		Well 3-R		Well 4-OS		Well 4-R		Well 5-OS		Well 5-I		Well 5-R		Well 7-OS		Well 7-R		Well 8-OS		Well 8-I		Well 8-R		Well 9-OS		Well 9-I		Well 9-R		Well PW-1		Well PW-2		SVWC-93		SVWC-94		SVWC-95		SVWC-96	
DATE																																																		
Jun-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	**7.2**	
Sep-99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
May-00	< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3			NA	< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3		< 2.3	
Sep-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Dec-00		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Jan-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-01	< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		**4.8**	B		NA	**22.8**		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7		< 2.7	
Jul-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-01		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Mar-02	< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		< 3.6			NA	< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		< 3.6		**4.4**	B	< 3.6		< 3.6		< 3.6		**4.4**	B	< 3.6		< 3.6		< 3.6	
Jul-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Oct-02		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA
Apr-03		NA	< 3.5		**4.8**	B	< 3.5		< 3.5		< 3.5		< 3.5		< 3.5			NA	**4.1**	B	< 3.5		< 3.5			NA	< 3.5		< 3.5		< 3.5		< 3.5		< 3.5		< 3.5		**4.1**	B	< 3.5		< 3.5		< 3.5		< 3.5		< 3.5		< 3.5	
Mar-04		NA		NA	< 2.8			NA	< 3.3			NA	**5.4**	B		NA	< 2.8			NA		NA	< 3.3			NA	< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3		< 3.3	
Jun-05	**10.4**			NA	**5.3**	B		NA	**12.7**			NA	< 2.9	N		NA		NA	**5.1**	B		NA	< 2.9	N		NA	< 2.9	N	**4.6**	B,N	**4.6**	B,N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N	< 2.9	N
Sep-06	**20**			NA	**16**			NA	**16**			NA	**24**			NA	**7.8**	J		NA		NA	**7.6**	J		NA	**9.8**	J	**12**		**9.4**	J	< 10		< 10		< 10		< 10		**8.8**	J	**7.6**	J	< 10		< 10		< 10	
Oct-07	**9.9**	J		NA	< 10			NA	< 10			NA	< 10			NA	< 10			NA	< 10		< 10			NA	< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10		< 10	
Mar-09	< 20			NA	< 20			NA	< 40			NA	< 20			NA	< 20			NA	< 20		< 20			NA	< 20		< 20		< 20		< 20		< 20		< 20		< 20		< 20		< 20		< 20		< 20		< 20	
May-10	< 0.5			NA	< 0.5			NA	0.5	J		NA	< 0.5	J		NA	< 2.5	D14		NA		NA	< 0.5			NA	< 0.5		< 0.5	J	< 0.5	J	< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5	
Sep-11	0.2	J	0.18	J	0.029	J	0.11	J	0.011	J	0.47	J	0.14	J		NA	0.32	J	0.02	J	0.18	J	0.2	J		NA	< 0.5		0.28	J	0.3	J	0.19	J	**0.6**	J	0.28	J	0.31	J	0.22	J	0.29	J	0.26	J		NA		NA
Nov-12	0.13	J		NA	0.035	J		NA	< 0.5			NA	0.051	J		NA	0.44	J		NA		NA	0.21	J		NA	< 0.5		< 0.5		< 0.5		0.014	J	< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5			NA
Mar-14	0.098	J		NA	0.043	J		NA	0.024	J		NA	0.04			NA	0.39	J		NA		NA	0.25	J		NA		ND		ND		ND	0.022	J		ND		ND		ND		ND		ND		ND		ND		ND

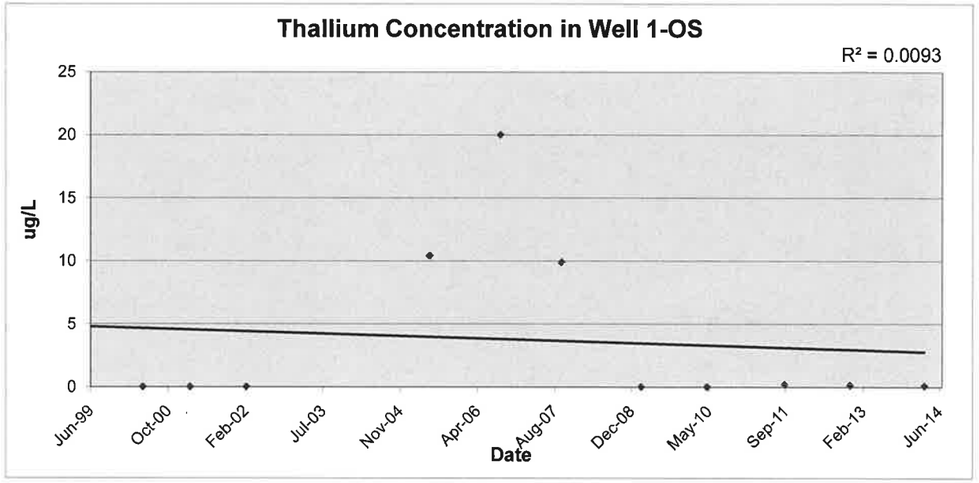
Notes:

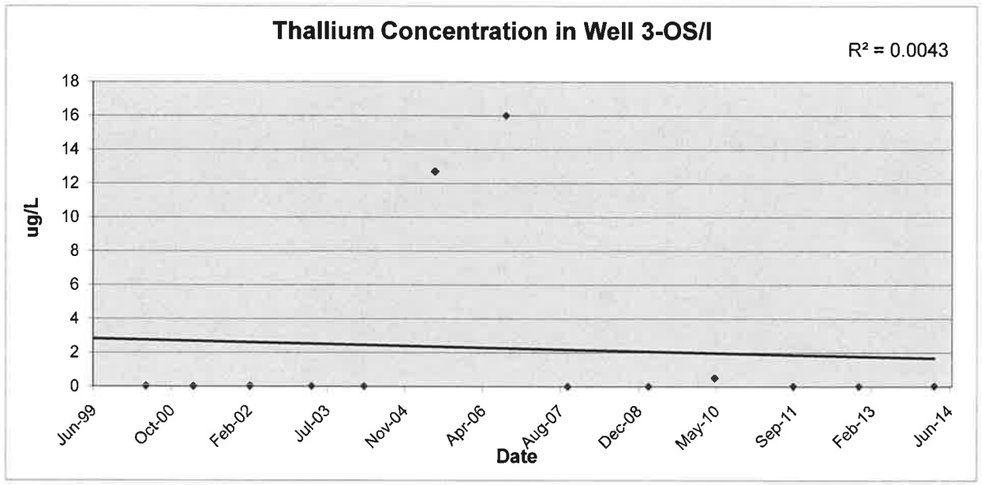
Values in **BOLD** indicate the reported concentration is greater than the ARAR for the groundwater monitoring wells or MCL for the private and municipal drinking water wells water quality standard.

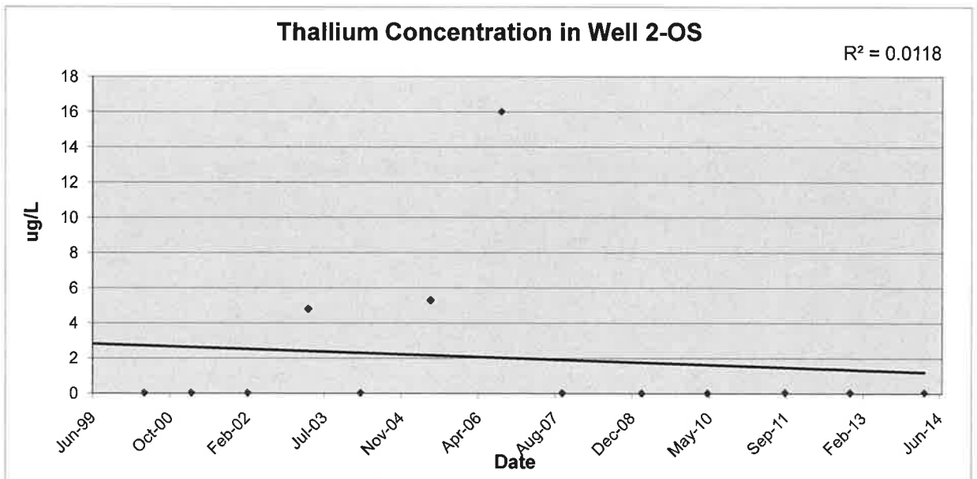
NA = Not Analyzed
ND = Not Detected
< = The compound was analyzed for but not detected at the laboratory detection limit listed.
ARAR = Applicable or Relevant and Appropriate Requirement: NYSDEC TOGS 1.1.1 Ambient Water-Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).
MCL = Maximum Contaminant Level: USEPA National Primary Drinking Water Regulations.

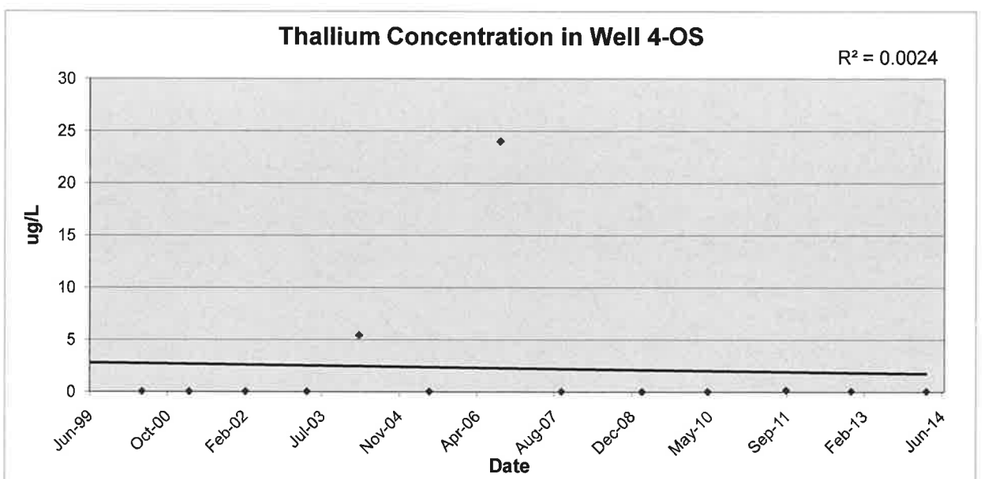
Laboratory Qualifier Definitions

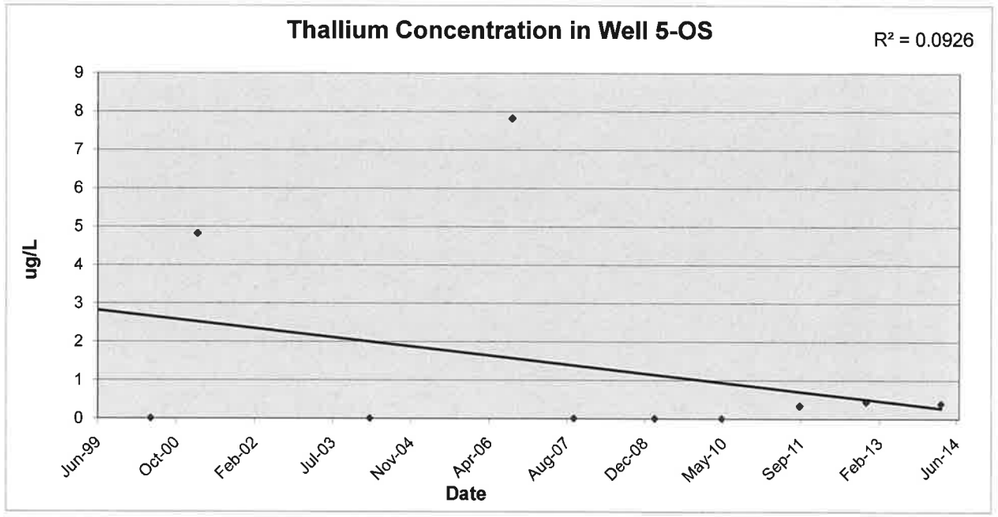
B = The reported value is less than the Contract Required Detection Limit, but greater than the Instrument Detection Limit.
D14 = Dilution required due to high concentration of dissolved solids known to cause failure of routine quality control. Analytical method recommends a five-fold dilution for samples that contain greater than 2,000 mg/L of total solids.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N = Spiked sample recovery not within control limits.

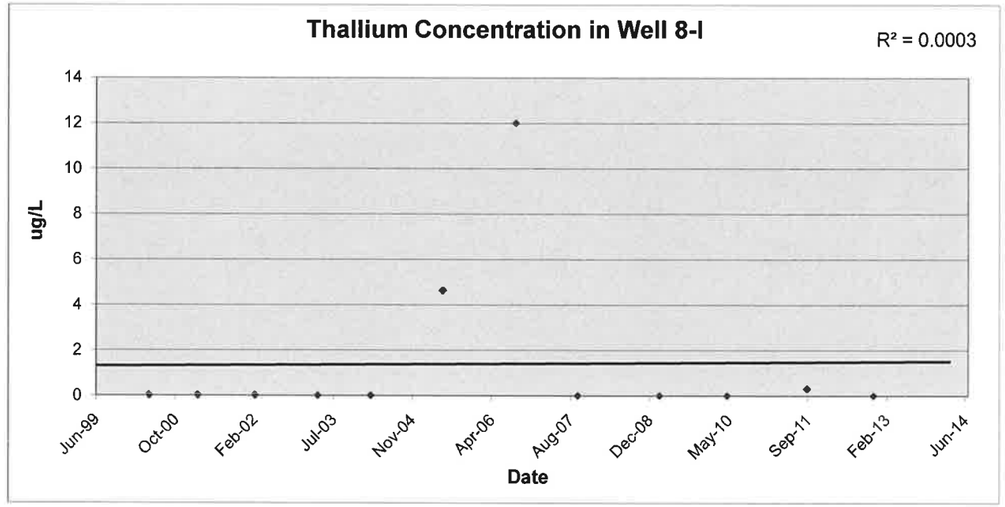

Thallium Concentration in Well 1-OS
R² = 0.0093
ug/L
25
20
15
10
5
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

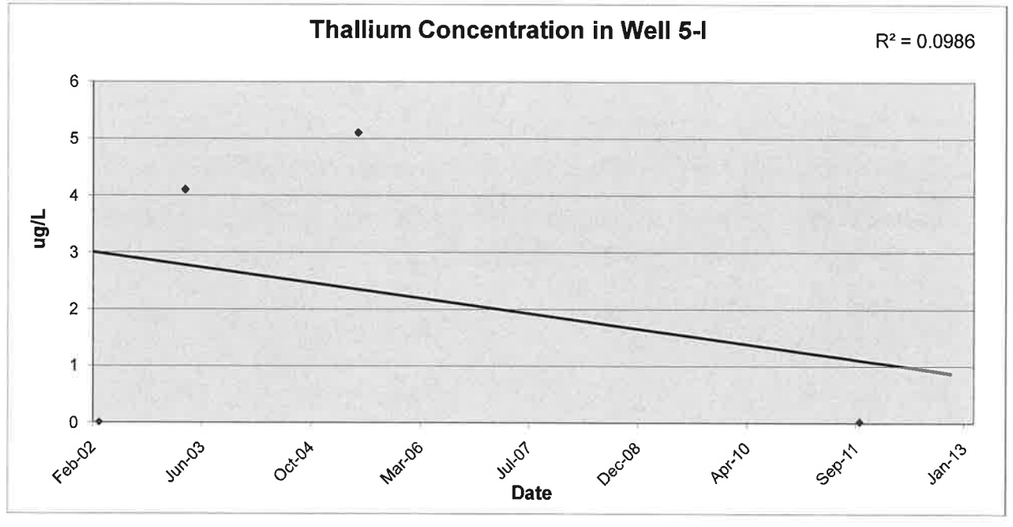

Thallium Concentration in Well 3-OS/I
R² = 0.0043
ug/L
18
16
14
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

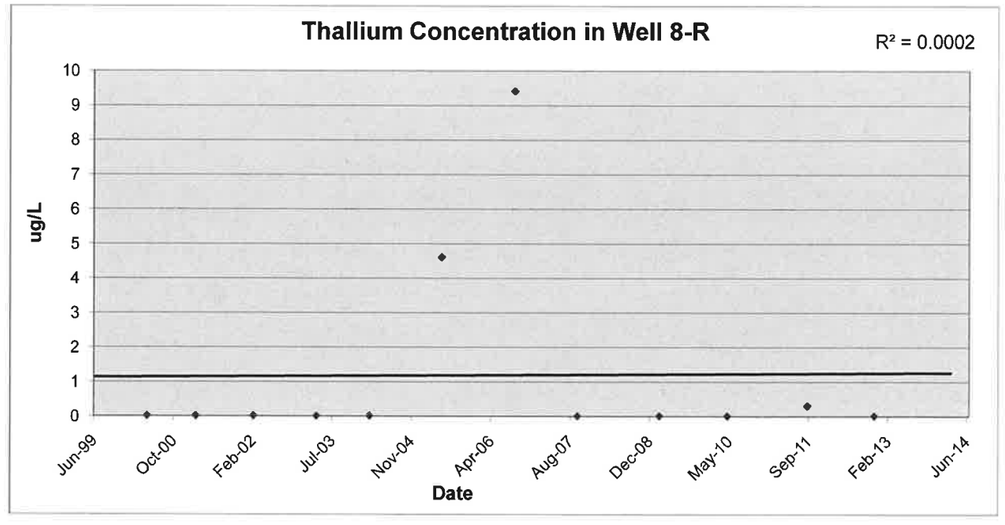

Thallium Concentration in Well 2-OS
R² = 0.0118
ug/L
18
16
14
12
10
8
6
4
2
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

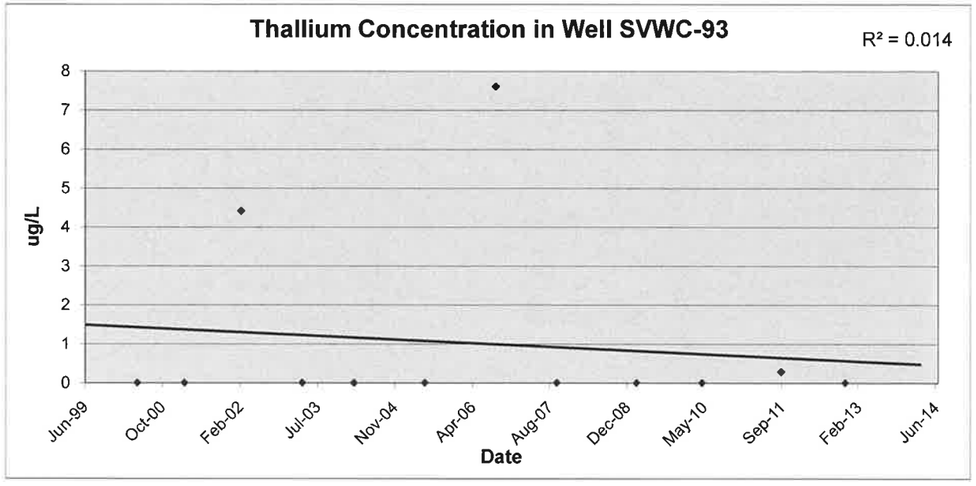

Thallium Concentration in Well 4-OS
R² = 0.0024
ug/L
30
25
20
15
10
5
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Thallium Concentration in Well 5-OS
R² = 0.0926
ug/L
0
1
2
3
4
5
6
7
8
9
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Thallium Concentration in Well 8-I
R² = 0.0003
ug/L
0
2
4
6
8
10
12
14
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Thallium Concentration in Well 5-I
R² = 0.0986
ug/L
0
1
2
3
4
5
6
Feb-02
Jun-03
Oct-04
Mar-06
Jul-07
Dec-08
Apr-10
Sep-11
Jan-13
Date


Thallium Concentration in Well 8-R
R² = 0.0002
ug/L
0
1
2
3
4
5
6
7
8
9
10
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date


Thallium Concentration in Well SVWC-93
R² = 0.014
ug/L
8
7
6
5
4
3
2
1
0
Jun-99
Oct-00
Feb-02
Jul-03
Nov-04
Apr-06
Aug-07
Dec-08
May-10
Sep-11
Feb-13
Jun-14
Date

APPENDIX D

LEACHATE & GROUNDWATER VOLUMES

Table D-1
TOWN OF RAMAPO LANDFILL
Volume of Leachate/Groundwater Pumped from Landfill Extraction Wells to RCSD #1 POTW

Year	Gallons
1995	20,553,200
1996	21,851,062
1997 (1)	22,888,055
1998 (1)	22,888,055
1999	7,280,848
2000	17,234,622
2001	12,328,217
2002	13,576,560
2003	18,415,267
2004	13,827,647
2005	18,285,355
2006	14,391,820
2007	11,671,388
2008	11,929,369
2009	13,692,046
2010	8,955,114
2011	9,763,081
2012 (2)	3,325,332
2013	"To be provided"

(1) Flow meter or totalizer did not function - no data available therefore values are based on previous records

(2) Through 10/01/2012

Note: The volumes for 1997 and 1998 are estimated. No data was recorded due to malfunctioning equipment.

APPENDIX E

LEACHATE & GROUNDWATER ANALYTICAL RESULTS

Table E-1
Rockland County Sewer District #1
Results for the Town of Ramapo Landfill
Sample Location : Manhole Immediately Upstream of Wet Well

Parameter	Maximum Concentration (ppm)	August 20 & 21, 2009 (ppm)		January 13, 2010 (ppm)		May 19 & 20, 2010 (ppm)		January 26, 2011 (ppm)		July 20, 2011 (ppm)		March 14, 2012 (ppm)		May 17, 2012 (ppm)		August 22, 2012 (ppm)		July 25, 2013 (ppm)		January 23, 2014 (ppm)	
pH	5-11	7.8		7.3		6.8 5/19/10 7.3 5/20/10		6.7		6.8		6.8		6.8		6.5		8.2		7.7	
Phosphorous (Total)	-	0.41		1.32		0.02	u	0.13		0.07		0.185		0.105		0.03	u	0.198		3.74	
Chlorides	-	160		180		130		200		257		123		92.6		90.8		148		4010	
Ammonia	-	520		340		1.8		1	u	2.3		0.645		0.821		2.03		0.1	u	1260	
BOD	- (1)	30		100		2		4		6		4		2		2		1		39	
COD	-	161		576		35		43		55		52		20		9		---		2600	
Suspended Solids	- (2)	24		74		5		2		20		7		3		6		6		72	
TKN	-	530		380		2.2		1	u	3.4		1.47		1.59		4.06		1.02		1500	
Total Dissolved Solids	-	2,300		950		480		720		1,500		504		312		366		504		958	
O&G Non-Polar	25	1.4	u	1.4	u	1.4	u	5	u	0.6	u	6.30		---		---		---		---	
Boron	1.0	0.1		0.11		0.09		0.098		0.111		0.0792	B	0.0966	B	0.0725	B	0.106		0.1	
Manganese	-	0.727		0.783		0.744		0.87		0.428		1.35		0.823		1.160		0.508		0.025	u
Antimony	-	0.005	u	0.005	u	0.005	u	0.015	u	0.0036	J	0.002	u	0.002	u	0.002	u	0.001		0.001	u
Arsenic	0.25	0.004	u	0.007		0.004	u	0.01	u	0.0035	u	0.002		0.002		0.002		0.001	u	0.002	
Beryllium	-	0.001	u	0.001	u	0.001	u	0.005	u	0.0008	u	0.001	u	0.000116	B	0.000106	B	0.001	u	0.001	u
Cadmium	0.07	0.001	u	0.001	u	0.001	u	0.002	u	0.0005	J	0.004	u	0.004	u	0.008		0.004	u	0.004	u
Chromium	0.6	0.001	u	0.004		0.001	u	0.005	u	0.0039	J	0.011	u	0.016	B	0.011	u	0.025	u	0.011	u
Copper	1.0	0.018		0.085		0.002	u	0.025	u	0.158		0.015		0.024		0.01	u	0.010	u	0.067	
Lead	1.0	0.002	u	0.002	u	0.002	u	0.01	u	0.0028	u	0.044		0.015	u	0.032	B	0.016	u	0.016	u
Mercury	0.05	0.0002	u	0.008	u	0.0002	u	0.0002	u	0.00007	u	0.001	u	0.001	u	0.001	u	0.001	u	0.001	u
Nickel	1.0	0.003		0.01		0.002		0.005	u	0.0082		0.016	B	0.038		0.01	u	0.025	u	0.025	u
Silver	2.3	0.001	u	0.001		0.001	u	0.01	u	0.0012	u	0.01	u	0.01	u	0.01	u	0.010	u	0.01	u
Thallium	-	0.005	u	0.025	u	0.005	u	0.005	u	0.0038		0.05	u	0.033	u	0.033	u	0.033	u	0.039	B
Zinc	3.0	0.027		0.117		0.003		0.025	u	0.471		0.044		0.109		0.023		0.015		0.093	
Selenium	0.1	0.01	u	0.01	u	0.01	u	0.01	u	0.0037	u	0.004		0.004		0.001	u	0.002		0.001	
Molybdenum	0.14	0.01	u	0.01	u	0.01	u	0.01	u	0.0047	u	0.0024	B	0.0019	B	0.0027	B	0.00240	B	0.05	u
Cyanide Total	1.0	0.02		0.05	u	0.01	u	0.01	u	0.00498	u	0.01	u	0.01	u	0.01	u	0.01	u	0.057	
Cyanide, Free	0.1	0.01		(3)		0.01	u	0.005		0.00468	u	---		---		---		---		---	
Cyanide, Amenable		---		---		---		---		---		0.01	u	0.01	u	0.010	u	0.01	u	0.010	u
Phenol	2.25	0.03	u	0.015	u	0.015	u	0.015	u	0.015	u	0.05	u	0.05	u	0.05	u	0.01	u	0.067	
USEPA Priority Pollutants (4)	2.13	0.06	u	0.06	u	0.06	u	0.0206	u	0.028	u	0.085 (5)		0.087 (5)		0.089 (5)		0.00057		0.0197	

B = Indicates a value that is > than method detection limit (MDL) but < than laboratory quantition limit
J = Estimated value due to the compound was detected below the reporting limit
u = Reported at concentration less than laboratory reporting limit
(1) A surcharge will apply if BOD is > 250 ppm
(2) A surcharge will apply if Suspended Solids is > 300 ppm
(3) Could not report free Cyanide due to matrix interference
(4) Excluding metals, Phenol and Cyanides
(5) Does not include : Acrolein, Acrylonitrile, Benzidine, Parachlorometa cresol, 1, 2-diphenylhydrazine, 4-chlorophenyl phenyl ether, 4-bromophenyl phenyl ether, Methyl chloride, Methyl bromide, 4, 6 -dinitro-o-cresol

S:\Sterling\Projects\2000 Projects\Town of Ramapo - 20010\WasteWater Treatment Plant Lab Data\Rockland County Sewer District #1_Table E-1

COUNTY OF ROCKLAND

SEWER DISTRICT NO. 1

4 Route 340
Orangeburg, New York 10962
(845) 365-6111
Fax. (845) 365-6686

August 20, 2013

Michael Sadowski, PE
Deputy Director
Town of Ramapo, DPW
Pioneer Avenue
Tallman, N.Y. 10982

Re: Wastewater Analysis Report/s - 2013

Dear Mr. Sadowski:

Enclosed is the analysis report/s for the sample/s collected from your facility on July 25, 2013. The sampling is conducted to comply with the requirements of the Wastewater Discharge Permit and the Pretreatment Program. The charges for such services as deemed applicable by the District will be billed to you in the early part of 2014.

Should you have any questions or need additional information please call this office.

Very truly yours

Joan Roth
Compliance Administrator

Enclosure

CC: D. Philipps, PE M. Saber, PE

File: Ramapo Landfill - P - 2013
Reader

ROCKLAND COUNTY SEWER DISTRICT NO. 1
4 Route 340
Orangeburg, N.Y. 10962

PRETREATMENT PROGRAM - SAMPLE ANALYSIS REPORT

REPORT FOR: RAMAPO LANDFILL, HILBURN, NY

LOCATION SAMPLED: Manhole Immediately Upstream of Wetwell

MATRIX: Water DATE SAMPLED: 7/25/2013 Sample ID: IS-130725-RLF

PARAMETER	RESULTS	DATE OF ANALYSIS	ANALYST INITIALS	METHOD AS PER 40CFR
pH	8.2	7/25/13	MP	SM 4500-H-B
BIOCHEMICAL OXYGEN DEMAND (mg/L)	1	7/30/13	MP	SM 5210 B
TOTAL SUSPENDED SOLIDS (mg/L)	6	7/26/13	MP	SM 2540 D
Other Analyses	See Attached			

I certify under penalty of law that the documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Linda Hoffman August 20, 2013
Linda Hoffman
Laboratory Director
NYSDOH ID No. 10447

No. of pages in this report: **11**

ROCKLAND COUNTY SEWER DISTRICT #1
4 RTE 340 ORANGEBURG, NY 10962

CHAIN OF CUSTODY DOCUMENT

FACILITY SAMPLED: **RAMAPO LANDFILL, Hillburn** **(Permit No. 9 - Expired: 8/14/2015)**

SEMI-ANNUAL

LOCATION SAMPLED: Manhole immediately upstream of wetwell near road

SAMPLE ID NO. *IS – 13 07 25 – RLF* (ID Format (YY - MM - DD))

pH CALIBRATION DATE: 1st 7/24 2nd 7/25 TIME: 1st 7:15A 2nd 7:10A ANALYST: 1st MP 2nd KW

Buffer 4 Reading: 4.01 Buffer 7 Reading: 7.00 Buffer 10 Reading: 10.05 Slope: -56.2 Buffer 7 Reading: 7.03

*****NOTE: If the collected sample is not within the range of 5.0 - 11.0 SU.
Notify the Discharger immediately.
Name of Person Notified: _____
If a violation; the sample collected should be brought back to the Lab for pH check.
pH: _____ Temp. 0C _____
Time: _____ Done By: _____

SAMPLE INFORMATION

COMPOSITE	DATE	TIME	SAMPLER'S SIGNATURE	pH	TEMP. (°C)
START	7/24/13	~~8:30~~ 8:20	MP	6.72	~~37~~ 41
END	7/25/13	~~8:30~~ 8:30	MP	8.03	~~37~~ 25

TYPE	PLASTIC OR GLASS	TOTAL # OF BOTTLES	VOLUME NEEDED mL	BOD, COD, TSS (unpreserved)	METALS (HNO3)	CHLORIDES (unpreserved)	TDS (unpreserved)	AMMONIA (H2SO4)	TKN (H2SO4)	T-Phosphorous (H2SO4)	TOTAL FREE CYANIDE (NaOH)	PHENOL (H2SO4)	TPH (HCl)	VOCs, EPA 624, (HCl)	SEMI-VOLATILES, EPA 625 (Unpreserved)	PCB's & Pesticides (unpreserved)
COMP.	PLASTIC	1	500	X												
COMP.	PLASTIC	1	~~500~~ 100		X											
COMP.	PLASTIC	1	~~500~~ 250			X										
COMP.	PLASTIC	1	500				X									
COMP.	PLASTIC	1	500					X								
COMP.	PLASTIC	1	500						X							
COMP.	PLASTIC	1	500							X						
GRAB	PLASTIC	1	1000								X					
GRAB	PLASTIC	1	1000									X				
GRAB	Glass Amber	1	1000										X			
GRAB	Glass Vial	2	40											X		
GRAB	Glass Amber	2	1000												X	
GRAB	Glass Amber	2	1000													X

ICE IN SAMPLE COOLER? *Circle* (YES) or NO

SAMPLES IN PROPER CONTAINERS? *Circle* (YES) or NO

NOTE: IF "NO" ICE IS CIRCLED OR SAMPLES ARE NOT COLLECTED & PRESERVED IN PROPER CONTAINERS, NOTIFY LAB DIRECTOR IMMEDIATELY. RE-SAMPLE UNLESS INSTRUCTED OTHERWISE BY LAB DIRECTOR AND RECORD SUCH IN "COMMENTS" SPACE BELOW.

SAMPLE/S RELINQUISHED BY: _____ DATE: 7/25/13 TIME: 9:30

SAMPLE/S RECEIVED BY: _____ DATE: 07-25-13 TIME: 9:30 AM

COMMENTS: *Metals (16) to be analyzed are B, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Zn*

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Samples Summary

Client Name: Rockland County Sewer District #1	Date of Report:	08/16/13
4 Route 340	AAT Project Number:	023512
Orangeburg, NY 10962	Client Project Name:	RC130718
	Sampled by:	Rockland County Sewer District #1
	Matrix:	Non Potable Water
	Date Received:	07/25/13

Parameter	Lab Sample ID	Client Sample ID	Sampling Method	Sampling Date/Time
Metals	WW-65471-1	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Chloride (Cl)	WW-65471-2	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Total Dissolved Solids (TDS)	WW-65471-3	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Semivolatile Organic Compounds (SVOC)	WW-65471-4	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Pesticides/PCBs	WW-65471-5	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Kjeldahl Nitrogen	WW-65471-6	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Ammonia as N	WW-65471-7	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Phosphorus Total	WW-65471-8	IS-130725-RLF	Composite	07/25/13 08:20-08:30
Phenols	WW-65471-9	IS-130725-RLF	Grab	07/25/13
Cyanide Total	WW-65471-10	IS-130725-RLF	Grab	07/25/13
Cyanide Amenable	WW-65471-10	IS-130725-RLF	Grab	07/25/13
Total Petroleum Hydrocarbons (TPH)	WW-65471-11	IS-130725-RLF	Grab	07/25/13
Volatile Organic Compounds (VOC)	WW-65471-12	IS-130725-RLF	Grab	07/25/13

Reviewed and approved by:

George Stancu
Technical Director

37 Ramland Road, Orangeburg, New York 10962
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ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Client Name: Rockland County Sewer District #1	Date of Report:	08/16/13
4 Route 340	AAT Project Number:	023512
Orangeburg, NY 10962	Client Project Name:	RC130718
	Sampled by:	Rockland County Sewer District #1
	Sampling Date:	07/25/13
	Matrix:	Non Potable Water
	Date Received:	07/25/13

Parameter	Lab Sample ID	Client Sample ID	Result	Unit	RLs	Date of Analysis	Analyst	Method
Metals	WW-65471-1	IS-130725-RLF	See Table #5	mg/L	-	-	G. Stancu A. Monzy	-
Chloride (Cl')	WW-65471-2	IS-130725-RLF	148	mg/L	10.00	07/29/13	A. Monzy	SM 19 4500-Cl C
Total Dissolved Solids (TDS)	WW-65471-3	IS-130725-RLF	504	mg/L	1.00	07/26/13	A. Monzy	SM 2540 C
Semivolatile Organic Compounds (SVOC)	WW-65471-4	IS-130725-RLF	See Table #2 & 3	ug/L	-	-	G. Stancu	EPA 625
Pesticides/PCBs	WW-65471-5	IS-130725-RLF	See Table #4	ug/L	-	-	G. Stancu	EPA 608
Kjeldahl Nitrogen*	WW-65471-6	IS-130725-RLF	1.02	mg/L	0.600	08/08/13	-	EPA 351.2
Ammonia as N	WW-65471-7	IS-130725-RLF	ND	mg/L	0.100	07/26/13	A. Monzy	SM 4500-NH3 D or E
Phosphorus Total	WW-65471-8	IS-130725-RLF	0.198	mg/L	0.050	07/26/13	A. Monzy	SM 4500-P E
Phenols	WW-65471-9	IS-130725-RLF	ND	mg/L**	0.010	07/30/13	A. Monzy	EPA 420.1
Cyanide Total	WW-65471-10	IS-130725-RLF	ND	mg/L	0.010	08/05/13	A. Monzy	SM 4500-CN E
Cyanide Amenable	WW-65471-10	IS-130725-RLF	ND	mg/L	0.010	08/05/13	A. Monzy	SM 4500-CN G, G
Total Petroleum Hydrocarbons (TPH)	WW-65471-11	IS-130725-RLF	ND	mg/L	5.00	08/08/13	A. Monzy	EPA 1664A
Volatile Organic Compounds (VOC)	WW-65471-12	IS-130725-RLF	See Table #1	ug/L	-	-	G. Stancu	EPA 624

RLs = Laboratory Reporting/Quantitation Limit
When "**" is present immediately following the "RLs" units, the "RLs" is the Method Detection Limit (MDL).
A result of "ND" indicates the concentration of the analyte tested was either not detected or below the RLs
"B" indicates a value that is than MDL buts than laboratory quantitation limit and the concentration is an estimated value

*Analysis performed by QC Laboratories, 1205 Industrial Blvd., P.O. Box 514, Southampton, PA 18966, NY Lab Id: 11223

Reviewed and approved by:

George Stancu
Technical Director

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ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 2: VOLATILE ORGANICS DATA SHEET
Method: EPA 624

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	07/25/13
Client Sample ID:	IS-130725-RLF	Date Analyzed:	07/30/13
Lab Sample ID.:	WW-65471-12	Dilution Factor:	1
AAT Project No.:	023512		

Compound Name	LOD (ug/L)	Result (ug/L)		Compound Name	LOD (ug/L)	Result (ug/L)
Benzene	0.41	ND		1,1-dichloroethene	0.88	ND
Bromodichloromethane	0.25	ND		trans-1,2-dichloroethene	0.81	ND
Bromoform	0.57	ND		1,2-Dichloropropane	0.42	ND
Bromomethane	0.55	ND		cis-1,3-dichloropropene	0.59	ND
Carbon tetrachloride	0.67	ND		trans-1,3-dichloropropene	0.53	ND
Chlorobenzene	0.35	ND		Dichlorofluoromethane	0.61	ND
Chloroethane	0.39	ND		Ethylbenzene	0.28	ND
2-chloroethylvinyl ether	0.26	ND		Methylene chloride	0.46	ND
Chloroform	0.34	ND		1,1,2,2-Tetrachloroethane	0.48	ND
Chloromethane	0.68	ND		Tetrachloroethene	0.64	ND
Dibromochloromethane	0.59	ND		Toluene	0.53	ND
1,2-dichlorobenzene	0.42	ND		1,1,1-trichloroethane	0.47	ND
1,3-dichlorobenzene	0.41	ND		1,1,2-trichloroethane	0.64	ND
1,4-dichlorobenzene	0.42	ND		Trichloroethene	0.33	ND
1,1-dichloroethane	0.51	ND		Trichlorofluoromethane	0.47	ND
1,2-dichloroethane	0.32	ND		Vinyl chloride	0.50	ND

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

Reviewed and approved by:

George Stancu
Technical Director

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ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 3: Semivolatile Organic Compounds (Base Neutral Extractables)
Method: EPA 625

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	07/25/13 08:20-08:30
Client Sample ID:	IS-130725-RLF	Date Extracted:	07/31/13
Lab Sample ID:	WW-65471-4	Extraction Type:	Sep. Funnel
AAT Project No.:	023512	Date Analyzed:	08/16/13
Sample Size:	1 liter	pH:	>11
Matrix:	Non Potable Water	Dilution Factor:	1

Compound Name	LOD (ug/L)	Result (ug/L)		Compound Name	LOD (ug/L)	Result (ug/L)
Acenaphthene	1.18	ND		Diethylphthalate	0.91	ND
Acenaphthylene	1.07	ND		Dimethylphthalate	1.20	ND
Anthracene	1.44	ND		2,4-Dinitrotoluene	0.88	ND
Benzidine	1.33	ND		2,6-Dinitrotoluene	1.13	ND
Benzo[a]anthracene	0.97	ND		Di-n-octylphthalate	0.77	ND
Benzo[b]Fluoranthene	1.28	ND		Fluoranthene	0.75	ND
Benzo[a]pyrene	1.24	ND		Fluorene	1.17	ND
Benzo[g,h,I]perylene	0.98	ND		Hexachlorobenzene	1.04	ND
Benzo[k]Fluoranthene	1.23	ND		Hexachlorobutadiene	1.16	ND
Bis[2-chloroethoxy]methane	1.42	ND		Hexachlorocyclopentadiene	1.94	ND
Bis[2-chloroethyl]ether	1.25	ND		Hexachloroethane	0.85	ND
Bis[2-chloroisopropyl]ether	0.97	ND		Indenol[1,2,3-cd]pyrene	0.80	ND
Bis[2-ethylhexyl]phthalate	0.29	0.57 J		Isophorone	1.43	ND
4-Bromophenyl-phenylether	1.05	ND		N-Nitrosodi-n-propylamine	1.23	ND
Butylbenzylphthalate	0.85	ND		N-Nitrosodimethylamine	1.31	ND
2-chloronaphthalene	1.30	ND		N-Nitrosodiphenylamine	1.21	ND
4-Chlorophenyl-phenylether	0.96	ND		Naphthalene	0.95	ND
Chrysene	1.25	ND		Nitrobenzene	1.10	ND
Di-n-Butylphthalate	1.01	ND		Phenanthrene	1.31	ND
3,3'-Dichlorobenzidine	1.14	ND		Pyrene	1.13	ND
Dibenzo[a,h]anthracene	0.84	ND		1,2,4-Trichlorobenzene	1.21	ND

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

Reviewed and approved by:

George Stancu
Technical Director

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ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 4: Semivolatile Organic Compounds (Acid Extractables)
Method: EPA 625

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	07/25/13 08:20-08:30
Client Sample ID:	IS-130725-RLF	Date Extracted:	07/31/13
Lab Sample ID.:	WW-65471-4	Extraction Type:	Sep. Funnel
AAT Project No.:	023512	Date Analyzed:	08/16/13
Sample Size:	1 liter	pH:	<2
Matrix:	Non Potable Water	Dilution Factor:	1

Compound Name	LOD (ug/L)	Result (ug/l)		Compound Name	LOD (ug/l)	Result (ug/l)
4-Chloro-3-Methylphenol	1.52	ND		2-Nitrophenol	0.94	ND
2-Chlorophenol	1.01	ND		4-Nitrophenol	1.82	ND
2,4-Dichlorophenol	1.50	ND		Pentachlorophenol	1.87	ND
2,4-Dimethylphenol	1.31	ND		Phenol	1.39	ND
4,6-Dinitro-2-methylphenol	0.83	ND		2,4,6-Trichlorophenol	1.62	ND
2,4-Dinitrophenol	1.74	ND				

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

Reviewed and approved by:

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ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 5: Pesticides and PCB's
Method: EPA 608

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	07/25/13 08:20-08:30
Client Sample ID:	IS-130725-RLF	Date Extracted:	07/31/13
Lab Sample ID.:	WW-65471-5	Extraction Type:	Sep. Funnel
AAT Project No.:	023512	Date Analyzed:	08/15/13
Sample Size:	1 liter	pH:	5.0-9.0
Matrix:	Non Potable Water	Dilution Factor:	1

Compound Name	LOD (ug/L)	Result (ug/L)		Compound Name	LOD (ug/L)	Result (ug/L)
Aldrin	0.20	ND		Endrin	0.10	ND
Alpha-BHC	0.10	ND		Endrin aldehyde	0.20	ND
Beta-BHC	0.10	ND		Heptachlor	0.19	ND
Gamma-BHC (Lindane)	0.10	ND		Heptachlor Epoxide	0.10	ND
Delta-BHC	0.20	ND		Toxaphene	0.72	ND
Chlordane	0.72	ND		Methoxychlor	0.20	ND
4, 4'-DDD	0.20	ND		PCB-1016	0.40	ND
4, 4'-DDE	0.10	ND		PCB-1221	0.88	ND
4,4'-DDT	0.30	ND		PCB-1232	0.88	ND
Dieldrin	0.10	ND		PCB-1242	0.81	ND
Alpha-Endosulfan	0.10	ND		PCB-1248	0.79	ND
Beta-Endosulfan	0.10	ND		PCB-1254	0.88	ND
Endosulfan sulfate	0.20	ND		PCB-1260	0.20	ND

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

Reviewed and approved by:

George Stancu
Technical Director

37 Ramland Road, Orangeburg, New York 10962
Tel: 800-259-9532, 201-484-7461 Fax: 845-818-3593 E-mail: aat@aatco.com

AAT
Advanced Analytical Technologies Inc.

ACCREDITED IN ACCORDANCE WITH nelac

ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 6: METALS

Parameter	Lab Sample ID	Client Sample ID	Result	Unit	RLs	Date of Analysis	Analyst	Method
Antimony (Sb)	WW-65471-1	IS-130725-RLF	0.001	mg/l	0.001	08/05/13	G. Stancu	EPA 200.9
Arsenic (As)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.001	08/06/13	G. Stancu	EPA 200.9
Beryllium (Be)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.001	08/05/13	G. Stancu	EPA 200.9
Boron (B)*	WW-65471-1	IS-130725-RLF	0.106	mg/l**	0.00440	08/01/13	-	EPA 200.7 Rev. 4.4
Cadmium (Cd)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.004	08/12/13	A. Monzy	SM 3111 B
Chromium (Cr)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.025	08/12/13	A. Monzy	SM 3111 B
Copper (Cu)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.010	08/12/13	A. Monzy	SM 3111 B
Lead (Pb)	WW-65471-1	IS-130725-RLF	ND	mg/l**	0.016	08/12/13	A. Monzy	SM 3111 B
Manganese (Mn)	WW-65471-1	IS-130725-RLF	0.508	mg/l	0.025	08/12/13	A. Monzy	SM 3111 B
Mercury (Hg)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.001	08/02/13	G. Stancu	EPA 245.1
Molybdenum (Mo)*	WW-65471-1	IS-130725-RLF	0.00240 B	mg/l**	0.000651	08/01/13	-	EPA 200.7 Rev. 4.4
Nickel (Ni)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.025	08/12/13	A. Monzy	SM 3111 B
Selenium (Se)	WW-65471-1	IS-130725-RLF	0.002	mg/l	0.001	08/01/13	G. Stancu	EPA 200.9
Silver (Ag)	WW-65471-1	IS-130725-RLF	ND	mg/l	0.010	08/12/13	A. Monzy	SM 3111 B
Thallium (Tl)	WW-65471-1	IS-130725-RLF	ND	mg/l**	0.033	08/12/13	A. Monzy	SM 3111 B
Zinc (Zn)	WW-65471-1	IS-130725-RLF	0.015	mg/l	0.010	08/12/13	A. Monzy	SM 3111 B

RLs = Laboratory Reporting/Quantitation Limit
When "**" is present immediately following the "RLs" units, the "RLs" is the Method Detection Limit (MDL).
A result of "ND" indicates the concentration of the analyte tested was either not detected or below the RLs
"B" indicates a value that is >than MDL but< than laboratory quantitation limit and the concentration is an estimated value

*Analysis performed by QC Laboratories, 1205 Industrial Blvd., P.O. Box 514, Southampton, PA 18966, NY Lab Id: 11223

Reviewed and approved by:

George Stancu
Technical Director

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Tel: 800-259-9532, 201-484-7461 Fax: 845-818-3593 E-mail: aat@aatec.com

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CERTIFICATION

Client Name: Rockland County Sewer District #1	Date of Report:	08/16/13
4 Route 340	AAT Project Number:	023512
Orangeburg, NY 10962	Client Project Name:	RC130718
	Sampled by:	Rockland County Sewer District #1
	Matrix:	Non Potable Water
	Date Received:	07/25/13

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the systems, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of find and imprisonment for knowing violations.

George Stancu
Technical Director

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Fax: 845-818-3593

NELAP CERTIFIED, NY LAB ID: 11713, NJDEP LAB ID: NY100

CHAIN OF CUSTODY

Company Name: Rockland County Sewer District #1	Client Project Name: RC1307[illegible]18
Address: 4 Route 340 Orangeburg, NY 10962	Client Project Number: RC1307[illegible]18
Contact Name: Linda Hoffman	Client Purchase Order No:
Tel/Fax: 845-365-6626	Project Mgr. Name: Linda Hoffman
Sampler's Name/Affiliation: (Print)	Send Invoice to: Linda Hoffman
Sampler's Signature:	AAT Project No: D23512

FOR LABORATORY USE ONLY

QTY	PRESERVATION	pH CHECK
6	Unpreserved	6.57
	Ascorbic/HCl Vials	
2	HCl Vials	
1	HCl	
1	HNO_3	<2
4	H_2SO_4	<2
1	NaOH	>12
	NaOH/Zn Acetate	
	$Na_2S_2O_3$	

SAMPLE LOCATION / FIELD ID	LAB SAMPLE ID	DATE	TIME Start	TIME End	SAMPLE TYPE comp	SAMPLE TYPE grab	MATRIX	TOTAL	NONE	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	NaOH/ZnAc	OTHER	ANALYSIS REQUESTED
	TS-130725-RLF	7/25/13	8:20A	8:30A	X		WW			1							metals - B, Sb, As, Be, Cd, Cr,
	WW-65F71(1-12)																Cu, Pb, Mn, Hg, Mo, Ni, Se,
																	Ag, Tl, Zn
					X	X Semi VOC (PCBs-Pest)			6								Chlorides, TDS, Semi-volatiles
																	PCB's + Pesticides
					X							3					TKN, Ammonia, T-phosphorous
						X						1					Phenols
						X							1				Total + Free cyanide
						X					3						TPH, VOC's (EPA 624)

MATRIX CODES: DW: DRINKING WATER, GW: GROUND WATER, WW: NON POTABLE WATER, SW: SOIL, SL: SLUDGE, SOL: NON SOIL SOLID, O: OTHER

SPECIAL INSTRUCTIONS:

TURNAROUND TIME: [X] STANDARD 2 WEEKS [ ] RUSH: LABORATORY APPROVAL REQUIRED

REPORT FORMAT: [X] RESULTS ONLY [ ] NJ REDUCED [ ] ELECTRONIC DATA DELIVERABLES

RELINQUISHED BY (Print): Linda Hoffman	DATE: 7/25/13	RECEIVED BY (Print):	DATE:
Signature: Linda Hoffman	TIME: 1:15 AM PM	Signature: [signature]	TIME: AM PM
RELINQUISHED BY (Print): [signature]	DATE: 7/25/13	RECEIVED BY (Print): ANNIE MONZY	DATE:
Signature: [signature]	TIME: 3:55 pm AM PM	Signature: Annie Monzy	TIME: AM PM
RELINQUISHED BY (Print):	DATE:	RECEIVED BY (Print):	DATE:
Signature:	TIME: AM PM	Signature:	TIME: AM PM

FIELD ANALYSIS

SAMPLE TEMP:
SAMPLE pH:
RES. Cl: Yes No
Cooler Temp. upon receipt at lab: 4°
Rec'd on Ice? (Yes) No

White - Original Yellow - Laboratory Copy Pink - Client Copy

COUNTY OF ROCKLAND

SEWER DISTRICT NO. 1

4 Route 340
Orangeburg, New York 10962
(845) 365-6111
Fax. (845) 365-6686

February 19, 2014

Michael Sadowski, PE
Deputy Director
Town of Ramapo, DPW
Pioneer Avenue
Tallman, N.Y. 10982

Re: Wastewater Analysis Report/s - 2014

Dear Mr. Sadowski:

Enclosed is the analysis report/s for the sample/s collected from your facility on January 23, 2014. Please note that the District believes that this sample may have been taken incorrectly as the results do not make sense when compared to past reports and therefore the District will resample next month. The sampling is conducted to comply with the requirements of the Wastewater Discharge Permit and the Pretreatment Program. The charges for such services as deemed applicable by the District will be billed to you in the early part of 2015.

Should you have any questions or need additional information please call this office.

Very truly yours

Joan Roth
Compliance Administrator

Enclosure

CC: D. Philipps, PE M. Saber, PE

File: Ramapo Landfill - P - 2014
Reader

ROCKLAND COUNTY SEWER DISTRICT NO. 1

4 Route 340
Orangeburg, N.Y. 10962

PRETREATMENT PROGRAM - SAMPLE ANALYSIS REPORT

REPORT FOR: RAMAPO LANDFILL, HILBURN, NY

LOCATION SAMPLED: Manhole Immediately Upstream of Wetwell

MATRIX: Water DATE SAMPLED: 1/23/14 Sample ID: IS-140123-RLF

PARAMETER	RESULTS	DATE OF ANALYSIS	ANALYST INITIALS	METHOD AS PER 40CFR
pH	7.7	1/23/14	MP	SM 4500-H-B
BIOCHEMICAL OXYGEN DEMAND (mg/L)	39	1/29/14	HV	SM 5210 B
CHEMCAL OXYGEN DEMAND (mg/L)	2600	1/24/14	AC	SM 5220 D
TOTAL SUSPENDED SOLIDS (mg/L)	72	1/24/14	AC	SM 2540 D
Other Analyses	See Attached			

I certify under penalty of law that the documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Linda Hoffman February 14, 2014
Linda Hoffman
Laboratory Director
NYSDOH ID No. 10447

No. of pages in this report: 11

ROCKLAND COUNTY SEWER DISTRICT #1
4 RTE 340 ORANGEBURG, NY 10962

CHAIN OF CUSTODY DOCUMENT

FACILITY SAMPLED: **RAMAPO LANDFILL, Hillburn** **(Permit No. 9 - Expired: 8/14/2015)**
SEMI-ANNUAL

LOCATION SAMPLED: Manhole immediately upstream of wetwell near road

ID Format (YY - MM - DD)

SAMPLE ID NO. IS- 140123 -RLF

pH CALIBRATION DATE: 1st 01-22-14 2nd 1/23/14 **TIME:** 1st 8:25AM 2nd 7:45AM **ANALYST:** 1st HW 2nd MR

Buffer 4 Reading: _____ Buffer 7 Reading: _____ Buffer 10 Reading: _____ Slope: _____ Buffer 7 Reading: _____

*****NOTE: If the collected sample is not within the range of 5.0 - 11.0 SU.
Notify the Discharger immediately.
Name of Person Notified: _____
If a violation; the sample collected should be brought back to the Lab for pH check.
pH: _____ Temp. 0C _____
Time: _____ Done By: _____

SAMPLE INFORMATION

COMPOSITE	DATE	TIME	SAMPLER'S SIGNATURE	pH	TEMP. (°C)
START	1/22/14	1140	MR	7.56	9
END	1/23/14	11:50	MR	7.72	8

TYPE	PLASTIC OR GLASS	TOTAL # OF BOTTLES	VOLUME NEEDED mL	BOD, COD, TSS (unpreserved)	METALS (HNO_3)	CHLORIDES (unpreserved)	TDS (unpreserved)	AMMONIA (H_2SO_4)	TKN (H_2SO_4)	T-Phosphorous (H_2SO_4)	TOTAL FREE CYANIDE (NaOH)	PHENOL (H_2SO_4)	TPH (HCl)	VOCs, EPA 624, (HCl)	SEMI-VOLATILES, EPA (Unpreserved)	PCB's & Pesticides (unpreserved)
COMP.	PLASTIC	1	500	X												
COMP.	PLASTIC	1	250		X											
COMP.	PLASTIC	1	500			X										
COMP.	PLASTIC	1	500				X									
COMP.	PLASTIC	1	500					X								
COMP.	PLASTIC	1	500						X							
COMP.	PLASTIC	1	500							X						
GRAB	PLASTIC	1	1000								X					
GRAB	PLASTIC	1	1000									X				
GRAB	Glass Amber	1	1000										X			
GRAB	Glass Vial	2	40											X		
GRAB	Glass Amber	2	1000												X	
GRAB	Glass Amber	2	1000													X

ICE IN SAMPLE COOLER? *Circle* YES or NO

SAMPLES IN PROPER CONTAINERS? *Circle* YES or NO

NOTE: IF "NO" ICE IS CIRCLED OR SAMPLES ARE NOT COLLECTED & PRESERVED IN PROPER CONTAINERS, NOTIFY LAB DIRECTOR IMMEDIATELY. RE-SAMPLE UNLESS INSTRUCTED OTHERWISE BY LAB DIRECTOR AND RECORD SUCH IN "COMMENTS" SPACE BELOW.

SAMPLE/S RELINQUISHED BY: HW **DATE:** 1/23/14 **TIME:** 1:00 PM

SAMPLE/S RECEIVED BY: _____ **DATE:** 1/23/14 **TIME:** 1:00 PM

COMMENTS: *Metals (16) to be analyzed are B, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Zn*

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Samples Summary

Client Name: Rockland County Sewer District #1	Date of Report:	02/12/14
4 Route 340	AAT Project Number:	024662
Orangeburg, NY 10962	Client Project Name:	RC140123
	Sampled by:	Rockland County Sewer District #1
	Matrix:	Non-Potable Water
	Date Received:	01/23/14

Parameter	Lab Sample ID	Client Sample ID	Sampling Method	Sampling Date/Time
Metals	WW-68170-1	IS-140123-RLF	Composite	01/23/14 11:40 - 11:50
Chloride (Cl')	WW-68170-2	IS-140123-RLF	Composite	01/23/14 11:40 - 11:50
Total Dissolved Solids (TDS)	WW-68170-3	IS-140123-RLF	Composite	01/23/14 11:40 - 11:50
Ammonia as N	WW-68170-4	IS-140123-RLF	Composite	01/23/14 11:40 - 11:50
Kjeldahl Nitrogen*	WW-68170-5	IS-140123-RLF	Composite	01/23/14 11:40 - 11:50
Phosphorus Total	WW-68170-6	IS-140123-RLF	Composite	01/23/14 11:40 - 11:50
Cyanide Total	WW-68170-7	IS-140123-RLF	Grab	01/23/14 11:50
Cyanide Amenable	WW-68170-7	IS-140123-RLF	Grab	01/23/14 11:50
Phenols	WW-68170-8	IS-140123-RLF	Grab	01/23/14 11:50
Total Petroleum Hydrocarbons (TPH)	WW-68170-9	IS-140123-RLF	Grab	01/23/14 11:50
Volatile Organic Compounds (VOC)	WW-68170-10	IS-140123-RLF	Grab	01/23/14 11:50
Semivolatile Organic Compounds (SVOC)	WW-68170-11	IS-140123-RLF	Grab	01/23/14 11:50
Pesticides/PCBs	WW-68170-12	IS-140123-RLF	Grab	01/23/14 11:50

Reviewed and approved by:

George Stancu
Technical Director

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ACCREDITED IN ACCORDANCE WITH nelac

ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Client Name: Rockland County Sewer District #1	Date of Report:	02/12/14
4 Route 340	AAT Project Number:	024662
Orangeburg, NY 10962	Client Project Name:	RC140123
	Sampled by:	Rockland County Sewer District #1
	Sampling Date:	01/23/14
	Matrix:	Non-Potable Water
	Date Received:	01/23/14

Parameter	Lab Sample ID	Client Sample ID	Result	Unit	RLs	Date of Analysis	Analyst	Method
Metals	WW-68170-1	IS-140123-RLF	See Table #5	mg/L	-	-	G. Stancu A. Monzy	-
Chloride (Cl)	WW-68170-2	IS-140123-RLF	4010	mg/L	10.00	02/10/14	A. Monzy	SM 19 4500-Cl C
Total Dissolved Solids (TDS)	WW-68170-3	IS-140123-RLF	958	mg/L	1.00	01/29/14	A. Monzy	SM 2540 C
Ammonia as N	WW-68170-4	IS-140123-RLF	1260	mg/L	0.100	01/31/14	A. Monzy	SM 4500-NH3 D or E
Kjeldahl Nitrogen*	WW-68170-5	IS-140123-RLF	1500	mg/L	90.5*	01/31/14	-	EPA 351.2
Phosphorus Total	WW-68170-6	IS-140123-RLF	3.74	mg/L	0.050	02/11/14	A. Monzy	SM 4500-P E
Cyanide Total	WW-68170-7	IS-140123-RLF	0.057	mg/L	0.010	01/30/14	A. Monzy	SM 4500-CN E
Cyanide Amenable	WW-68170-7	IS-140123-RLF	ND	mg/L	0.010	01/30/14	A. Monzy	SM 4500-CN G
Phenols	WW-68170-8	IS-140123-RLF	0.067	mg/L	0.050	02/04/14	A. Monzy	EPA 420.1
Total Petroleum Hydrocarbons (TPH)	WW-68170-9	IS-140123-RLF	ND	mg/L	5.00	02/10/14	A. Monzy	EPA 1664A
Volatile Organic Compounds (VOC)	WW-68170-10	IS-140123-RLF	See Table #1	ug/L	-	-	G. Stancu	EPA 624
Semivolatile Organic Compounds (SVOC)	WW-68170-11	IS-140123-RLF	See Table #2 & 3	ug/L	-	-	G. Stancu	EPA 625
Pesticides/PCBs	WW-68170-12	IS-140123-RLF	See Table #4	ug/L	-	-	G. Stancu	EPA 608

RLs = Laboratory Reporting/Quantitation Limit
When "*" is present immediately following the "RLs" units, the "RLs" is the Method Detection Limit (MDL).
A result of "ND" indicates the concentration of the analyte tested was either not detected or below the RLs
"B" indicates a value that is >than MDL but< than laboratory quantitation limit and the concentration is an estimated value

*Analysis performed by QC Laboratories, 1205 Industrial Blvd., P.O. Box 514, Southampton, PA 18966, NY Lab Id: 11223.
*Value is the Method Detection Limit and was used in the evaluation of the final result

Reviewed and approved by:

George Stancu
Technical Director

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ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 1: VOLATILE ORGANICS DATA SHEET
Method: EPA 624

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	01/23/14 11:50
Client Sample ID:	IS-140123-RLF	Date Analyzed:	02/04/14
Lab Sample ID.:	WW-68170-10	Dilution Factor:	1:5
AAT Project No.:	024662		

Compound Name	LOD (ug/L)	Result (ug/L)		Compound Name	LOD (ug/L)	Result (ug/L)
Benzene	2.05	ND		1,1-dichloroethene	4.40	ND
Bromodichloromethane	1.25	ND		trans-1,2-dichloroethene	4.05	ND
Bromoform	2.85	ND		1,2-Dichloropropane	2.10	ND
Bromomethane	2.75	ND		cis-1,3-dichloropropene	2.95	ND
Carbon tetrachloride	3.35	ND		trans-1,3-dichloropropene	2.65	ND
Chlorobenzene	1.75	ND		Dichlorofluoromethane	3.05	ND
Chloroethane	1.95	ND		Ethylbenzene	1.40	ND
2-chloroethylvinyl ether	1.30	ND		Methylene chloride	2.30	2.34 J
Chloroform	1.70	ND		1,1,2,2-Tetrachloroethane	2.40	ND
Chloromethane	3.40	ND		Tetrachloroethene	3.20	ND
Dibromochloromethane	2.95	ND		Toluene	2.65	5.88
1,2-dichlorobenzene	2.10	ND		1,1,1-trichloroethane	2.35	ND
1,3-dichlorobenzene	2.05	ND		1,1,2-trichloroethane	3.20	ND
1,4-dichlorobenzene	2.10	ND		Trichloroethene	1.65	ND
1,1-dichloroethane	2.55	ND		Trichlorofluoromethane	2.35	ND
1,2-dichloroethane	1.60	ND		Vinyl chloride	2.50	ND

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

Reviewed and approved by:

George Stancu
Technical Director

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ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 2: Semivolatile Organic Compounds (Base Neutral Extractables)
Method: EPA 625

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	01/23/14 11:50
Client Sample ID:	IS-140123-RLF	Date Extracted:	01/27/14
Lab Sample ID.:	WW-68170-11	Extraction Type:	Sep. Funnel
AAT Project No.:	024662	Date Analyzed:	01/29/14
Sample Size:	1 liter	pH:	>11
Matrix:	Non-Potable Water	Dilution Factor:	1

Compound Name	LOD (ug/L)	Result (ug/L)		Compound Name	LOD (ug/L)	Result (ug/L)
Acenaphthene	1.18	ND		Diethylphthalate	0.91	ND
Acenaphthylene	1.07	ND		Dimethylphthalate	1.20	9.45
Anthracene	1.44	ND		2,4-Dinitrotoluene	0.88	ND
Benzidine	1.33	ND		2,6-Dinitrotoluene	1.13	ND
Benzo[a]anthracene	0.97	ND		Di-n-octylphthalate	0.77	ND
Benzo[b]Fluoranthene	1.28	ND		Fluoranthene	0.75	ND
Benzo[a]pyrene	1.24	ND		Fluorene	1.17	ND
Benzo[g,h,i]perylene	0.98	ND		Hexachlorobenzene	1.04	ND
Benzo[k]Fluoranthene	1.23	ND		Hexachlorobutadiene	1.16	ND
Bis[2-chloroethoxy]methane	1.42	ND		Hexachlorocyclopentadiene	1.94	ND
Bis[2-chloroethyl]ether	1.25	ND		Hexachloroethane	0.85	ND
Bis[2-chloroisopropyl]ether	0.97	ND		Indeno[1,2,3-cd]pyrene	0.80	ND
Bis[2-ethylhexyl]phthalate	0.29	2.03 J		Isophorone	1.43	ND
4-Bromophenyl-phenylether	1.05	ND		N-Nitrosodi-n-propylamine	1.23	ND
Butylbenzylphthalate	0.85	ND		N-Nitrosodimethylamine	1.31	ND
2-chloronaphthalene	1.30	ND		N-Nitrosodiphenylamine	1.21	ND
4-Chlorophenyl-phenylether	0.96	ND		Naphthalene	0.95	ND
Chrysene	1.25	ND		Nitrobenzene	1.10	ND
Di-n-Butylphthalate	1.01	ND		Phenanthrene	1.31	ND
3,3'-Dichlorobenzidine	1.14	ND		Pyrene	1.13	ND
Dibenzo[a,h]anthracene	0.84	ND		1,2,4-Trichlorobenzene	1.21	ND

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

Reviewed and approved by:

George Stancu
Technical Director

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AAT
Advanced Analytical Technologies Inc.

ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 3: Semivolatile Organic Compounds (Acid Extractables)
Method: EPA 625

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	01/23/14 11:50
Client Sample ID:	IS-140123-RLF	Date Extracted:	01/27/14
Lab Sample ID.:	WW-68170-11	Extraction Type:	Sep. Funnel
AAT Project No.:	024662	Date Analyzed:	01/30/14
Sample Size:	1 liter	pH:	<2
Matrix:	Non-Potable Water	Dilution Factor:	1

Compound Name	LOD (ug/L)	Result (ug/l)		Compound Name	LOD (ug/l)	Result (ug/l)
4-Chloro-3-Methylphenol	1.52	ND		2-Nitrophenol	0.94	ND
2-Chlorophenol	1.01	ND		4-Nitrophenol	1.82	ND
2,4-Dichlorophenol	1.50	ND		Pentachlorophenol	1.87	ND
2,4-Dimethylphenol	1.31	ND		Phenol	1.39	ND
4,6-Dinitro-2-methylphenol	0.83	ND		2,4,6-Trichlorophenol	1.62	ND
2,4-Dinitrophenol	1.74	ND				

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

Reviewed and approved by:

George Stancu
Technical Director

37 Ramland Road, Orangeburg, New York 10962
Tel: 800-259-9532, 201-484-7461 Fax: 845-818-3593 E-mail: aat@aatec.com

AAT
Advanced Analytical Technologies Inc.

ACCREDITED IN ACCORDANCE WITH nelac

ANALYTICAL REPORT
NYS DOH LABORATORY ID NO: 11713

Table 4: Pesticides and PCB's
Method: EPA 608

Client Name:	Rockland County Sewer District #1	Date/Time Sampled:	01/23/143 11:50
Client Sample ID:	IS-140123-RLF	Date Extracted:	01/28/14
Lab Sample ID.:	WW-68170-12	Extraction Type:	Sep. Funnel
AAT Project No.:	024662	Date Analyzed:	01/30/14
Sample Size:	1 liter	pH:	5.0-9.0
Matrix:	Non-Potable Water	Dilution Factor:	1

Compound Name	LOD (ug/L)	Result (ug/L)		Compound Name	LOD (ug/L)	Result (ug/L)
Aldrin	0.20	ND		Endrin	0.10	ND
Alpha-BHC	0.10	ND		Endrin aldehyde	0.20	ND
Beta-BHC	0.10	ND		Heptachlor	0.19	ND
Gamma-BHC (Lindane)	0.10	ND		Heptachlor Epoxide	0.10	ND
Delta-BHC	0.20	ND		Toxaphene	0.72	ND
Chlordane	0.72	ND		Methoxychlor	0.20	ND
4, 4'-DDD	0.20	ND		PCB-1016	0.40	ND
4, 4'-DDE*	0.10	ND		PCB-1221	0.88	ND
4,4'-DDT	0.30	ND		PCB-1232	0.88	ND
Dieldrin	0.10	ND		PCB-1242	0.81	ND
Alpha-Endosulfan	0.10	ND		PCB-1248	0.79	ND
Beta-Endosulfan	0.10	ND		PCB-1254	0.88	ND
Endosulfan sulfate	0.20	ND		PCB-1260	0.20	ND

LOD = Limit of Detection
A result of "ND" indicates that the analyte was Not Detected at the Limit of Detection
"J" indicates a value that is greater than LOD but less than the lowest calibration standard and the result is an estimated value
"D" = Diluted; "B" = Compound also found in the Lab Blank

*Advanced Analytical Technologies, Inc. does not hold the New York State Certification for this analyte.

Reviewed and approved by:

George Stancu
Technical Director

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NYS DOH LABORATORY ID NO: 11713

Table 5: METALS

Parameter	Lab Sample ID	Client Sample ID	Result	Unit	RLs	Date of Analysis	Analyst	Method
Antimony (Sb)	WW-68170-1	IS-140123-RLF	ND	mg/l	0.001	02/07/14	G. Stancu	EPA 200.9
Arsenic (As)	WW-68170-1	IS-140123-RLF	0.002	mg/l	0.001	01/27/14	G. Stancu	EPA 200.9
Beryllium (Be)	WW-68170-1	IS-140123-RLF	ND	mg/l	0.001	02/07/14	G. Stancu	EPA 200.9
Boron (B)*	WW-68170-1	IS-140123-RLF	0.100	mg/l	0.050*	01/30/14	-	EPA 200.7 Rev. 4.4
Cadmium (Cd)	WW-68170-1	IS-140123-RLF	ND	mg/l	0.004	02/06/14	A. Monzy	SM 3111 B
Chromium (Cr)	WW-68170-1	IS-140123-RLF	ND	mg/l**	0.011	02/04/14	A. Monzy	SM 3111 B
Copper (Cu)	WW-68170-1	IS-140123-RLF	0.067	mg/l	0.010	02/04/14	A. Monzy	SM 3111 B
Lead (Pb)	WW-68170-1	IS-140123-RLF	ND	mg/l**	0.016	02/06/14	A. Monzy	SM 3111 B
Manganese (Mn)	WW-68170-1	IS-140123-RLF	ND	mg/l	0.025	02/10/14	A. Monzy	SM 3111 B
Mercury (Hg)	WW-68170-1	IS-140123-RLF	ND	mg/l	0.001	01/24/14	G. Stancu	EPA 245.1
Molybdenum (Mo)*	WW-68170-1	IS-140123-RLF	ND	mg/l	0.050*	01/30/14	-	EPA 200.7 Rev. 4.4
Nickel (Ni)	WW-68170-1	IS-140123-RLF	ND	mg/l	0.025	02/07/14	A. Monzy	SM 3111 B
Selenium (Se)	WW-68170-1	IS-140123-RLF	0.001	mg/l	0.001	02/06/14	G. Stancu	EPA 200.9
Silver (Ag)	WW-68170-1	IS-140123-RLF	ND	mg/l	0.010	02/04/14	A. Monzy	SM 3111 B
Thallium (Tl)	WW-68170-1	IS-140123-RLF	0.039 B	mg/l**	0.033	02/06/14	A. Monzy	SM 3111 B
Zinc (Zn)	WW-68170-1	IS-140123-RLF	0.093	mg/l	0.010	02/06/14	A. Monzy	SM 3111 B

RLs = Laboratory Reporting/Quantitation Limit
When "**" is present immediately following the "RLs" units, the "RLs" is the Method Detection Limit (MDL).
A result of "ND" indicates the concentration of the analyte tested was either not detected or below the RLs
"B" indicates a value that is >than MDL but < than laboratory quantitation limit

*Analyses were performed by EnviroTest Laboratories Inc., 315 Fullerton Avenue, Newburgh, NY 12550, NY Lab Id No: 10142

*RL = Reporting Limit - the minimum levels, concentrations, or quantities of a target variable (e.g. target analyte) that can be reported with a specific degree of confidence. ND = The analyte was analyzed for but not detected at or above stated limit
*J = Result is less that RL but greater than or equal to the MDL and the concentration is an approximate value.

Reviewed and approved by:

George Stancu
Technical Director

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CERTIFICATION

Client Name: Rockland County Sewer District #1	Date of Report:	02/12/14
4 Route 340	AAT Project Number:	024662
Orangeburg, NY 10962	Client Project Name:	RC140123
	Sampled by:	Rockland County Sewer District #1
	Matrix:	Non-Potable Water
	Date Received:	01/23/14

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the systems, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of find and imprisonment for knowing violations.

George Stancu
Technical Director

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CHAIN OF CUSTODY

PAGE 1 OF 1

AAT
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Orangeburg, NY 10962
Tel: 201-484-7451
Fax: 845-818-3593

NELAP CERTIFIED. NY LAB ID: 11713, NJDEP LAB ID: NY100

Company Name: ROCKLAND COUNTY SEWER DISTRICT #1
Address: 4 ROUTE 340 ORANGEBURG NY 10962
Contact Name: LINDA HOFFMAN
Tel/Fax: 845-365-6626
Sampler's Name/Affiliation: (Print)
Sampler's Signature:

Client Project Name: RC140123
Client Project Number: RC140123
Client Purchase Order No:
Project Mgr. Name: LINDA HOFFMAN
Send Invoice to: LINDA HOFFMAN
AAT Project No: 024662.

FOR LABORATORY USE ONLY

QTY	PRESERVATION	pH CHECK
6	Unpreserved	8.62, 8.67
2	Ascorbic/HCl Vials	
2	HCl Vials	
1	HCl	
1	HNO_3	<2
4	H_2SO_4	<2
1	NaOH	>12
	NaOH/Zn Acetate	
	$Na_2S_2O_3$	

SAMPLE LOCATION / FIELD ID	LAB SAMPLE ID	COLLECTION DATE	TIME Start	TIME End	SAMPLE TYPE comp	SAMPLE TYPE grab	NUMBER OF PRESERVED CONTAINERS MATRIX	TOTAL	NONE	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	NaOH/Zn Ac	OTHER	ANALYSIS REQUESTED
	FS-140123-RLF	1/23/14	11:40A	11:50A	X		WW	15		1							Metals(16) B, Sb, As, Be, Cd, Cr, Cu
	MW-8170																Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Zn
	(1-12)				X				2								Chlorides, TDS,
					X							3					Ammonia, TKN, T-phosphorous
						X							1				Total + Free cyanide
						X						1					Total phenols
						X					3						TPH, VOC's
						X			4								Semi-volatiles PCB's Pesticides

MATRIX CODES: DW: DRINKING WATER, GW: GROUND WATER, WW: NON POTABLE WATER, SW: SOIL, SL: SLUDGE, SOL: NON SOIL SOLID, O: OTHER

SPECIAL INSTRUCTIONS

TURNAROUND TIME: [X] STANDARD 2 WEEKS [ ] RUSH. LABORATORY APPROVAL REQUIRED

REPORT FORMAT: [X] RESULTS ONLY [ ] NJ REDUCED [ ] ELECTRONIC DATA DELIVERABLES

RELINQUISHED BY (Print): LINDA HOFFMAN	DATE: 1/23/14	RECEIVED BY (Print):	DATE:	FIELD ANALYSIS
Signature:	TIME: 3PM AM PM	Signature:	TIME: AM PM	SAMPLE TEMP:
RELINQUISHED BY (Print):	DATE: 1/23/14	RECEIVED BY (Print): ANNIE MANZY	DATE:	SAMPLE pH:
Signature:	TIME: 3:30pm AM PM	Signature:	TIME: AM PM	RES. Cl: Yes No
RELINQUISHED BY (Print):	DATE:	RECEIVED BY (Print):	DATE:	Cooler Temp. upon receipt at lab
Signature:	TIME: AM PM	Signature:	TIME: AM PM	Rec'd on Ice? (Yes) No 4 C

White - Original; Yellow - Laboratory Copy; Pink - Client Copy