1592

REPUBLIC SERVICES

Green Valley Landfill General Partnership

June 10, 2014

Ron Gruzesky
Solid Waste Branch
Division of Waste Management
200 Fair Oaks
Frankfort, KY 40601

RE: Green Valley Landfill General Partnership
Green Valley Landfill, Greenup County
Solid Waste Permit No. SW04500012
Second Quarter 2014 Groundwater Monitoring and Surface Water Monitoring Reports

Mr. Gruzesky:

Enclosed please find one copy of the quarterly groundwater and surface water monitoring reports and the statistical evaluation report for Green Valley Landfill. No groundwater or surface water exceedances were detected. No verified statistical exceedances were identified.

Feel free to contact me at 502-403-8908 (cell) or WChlebowy@republicservices.com if you have any questions or need additional information.

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 upon my inquiry of the person or 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 that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for such violations.

Sincerely,

GREEN VALLEY LANDFILL GENERAL PARTNERSHIP

William L. Chlebowy, P.E.
Environmental Manager
Republic Services, Inc.

Received
JUN 13 2014
Recepti

Enclosures

cc: Kim Cecil – Operations Manager Landfill
Green Valley Landfill – File

GROUNDWATER
AND
SURFACE WATER MONITORING
SAMPLE DATA REPORTING FORM

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
SOLID WASTE BRANCH
14 REILLY ROAD
FRANKFORT, KY 40601

RECEIVED
JUN 13 2014
DIVISION OF WASTE MANAGEMENT
SOLID WASTE BRANCH

Facility Name Green Valley Landfill **Activity** Contained Landfill
(As officially shown on DWM Permit Face)

Permit No. 045-00012 **Finds/Unit No.** _____ **Quarter & Year** 2nd 2014

Please check only ONE of the following:

☐ **Characterization** ☒ **Quarterly** ☐ **Semi-Annual** ☐ **Annual** ☐ **Assessment**

Please check applicable submittal: ☐ **Groundwater** ☒ **Surface Water**

This form is to be utilized by those sites required by regulation (Kentucky Waste Management Regulations - 401 KAR 48:300 and 45:160) or by statue (Kentucky Revised Statues Chapter 224) to conduct groundwater and surface water monitoring under the jurisdiction of the Division of Waste Management. **You must report any indication of contamination within forty-eight (48) hours of making the determination using statistical analyses, direct comparison, or other similar techniques. Submitting the lab report is NOT considered notification.** Instructions for completing the form are attached. Do not submit the instruction pages.

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 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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

William L Chlebowy 6-10-14

SIGNATURE DATE

WILLIAM L. CHLEBOWY : ENVIRONMENTAL MANAGER

NAME AND TITLE - PLEASE PRINT

FACILITY INFORMATION SHEET

Sampling Date: 04/21/2014 County: Greenup Permit No. 045-00012

Facility Name Green Valley Landfill
(As officially shown on DWM Permit Face)

Site Address: 100 Addington Road (Street) Ashland, Kentucky (City) 41102 (Zip)

Phone No.: (606) 928-0239 Latitude 38° 23' 00" Longitude 82° 48' 58"

OWNER INFORMATION

Facility Owner: Green Valley Environmental Corporation Phone No.: 606-928-0239

Contact Person: Bill Chlebowy, P.E. Phone No.: 502-209-3816

Contact Person Title: Environmental Manager

Mailing Address: 2157 Highway 151 (Street) Frankfort, KY (City) 40601 (Zip)

SAMPLING PERSONNEL

(IF OTHER THAN LANDFILL OR LABORATORY)

Company: Kenvirons, Inc.

Contact Person: Bill Knarr Phone No.: (502) 695-4357

Mailing Address: 452 Versailles Road (Street) Frankfort, KY (City) 40601 (Zip)

LABORATORY RECORD #1

Laboratory: Pace Analytical Services, Inc. Lab ID No.:

Contact Person: Chris Boyle Phone No.: (317) 243-8304

Mailing Address: 7901 West Morris Street (Street) Indianapolis, IN (City) 46231 (Zip)

LABORATORY RECORD #2

Laboratory: Lab ID No.:

Contact Person: Phone No.:

Mailing Address: (Street) (City) (Zip)

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502) 564-6716

Facility: Green Valley Landfill
Permit Number: _____

FINDS/UNIT: _____

SURFACE WATER SAMPLE ANALYSIS (w)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM", or "DOWNSTREAM")						SW-3								
Sample Sequence #														
If a sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment														
Sample Date and Time (Month/Day/Year hour:minutes)						4/21/2014 13:05								
Duplicate ("Y" or "N") [1]						N								
Spilt ("Y" or "N") [2]						N								
Facility Sample ID Number (if applicable)														
Laboratory Sample ID Number (if applicable)						AA14657								
Date of Analysis (Month/Day/Year)						4/25/2014								
CAS RN[3]		CONSTITUENT	T D[4]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS							FLAGS
A200-00-0	0	Flow	T	Gal./Min.		10								
16887-00-6	2	Chloride(s)	T	MG/L	SW846-9251	6.4								
14808-79-8	0	Sulfate	T	MG/L	SW846-9038	270								
7439-89-6	0	Iron	T	MG/L	SW846-6010A	0.62								
7440-23-5	0	Sodium	T	MG/L	SW846-6010A	8.1								
S0268 - -	0	Organic Carbon[6]	T	MG/L	SW846-9060	2.2								
S0097- -	0	BOD[6]	T	MG/L										

[1] Respond "Y" if the sample was a duplicate of another sample in this report.

[2] Respond "Y" if the sample was split and analyzed by separate laboratories.

[3] Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.

[4] "T" = Total; "D" = Dissolved

[5] "<" indicates a non-detect; do not use "ND" or "BDL".
Value then shown is Practical Quantification Limit.

[6] Facility has either/or option on Organic Carbon and (BOD) Biological Oxygen Demand - Both are not required

STANDARD FLAGS:

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502) 564-6716

Facility: Green Valley Landfill
Permit Number: _____

FINDS/UNIT: _____

SURFACE WATER SAMPLE ANALYSIS (Cont.)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM", or "DOWNSTREAM")						SW-3						0	
CAS RN[3]		CONSTITUENT	T D[4]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS						FLAGS
S0130- -	0	Chemical Oxygen Demand	T	MG/L	EPA 410.4	< 10							
S0145- -	1	Specific Conductance, Field	T	UMHOS/CM	SW846-9050	672							
S0270- -	0	Total Suspended Solids	T	MG/L	EPA 160.2	8							
S0266- -	0	Total Dissolved Solids	T	MG/L	EPA 160.1	440							
S0269- -	0	Total Solids	T	MG/L	EPA 160.3	530							
S0296- -	0	pH, Field	T	UNITS	SW846-9040A	6.85							

Comments:

1. There was no flow reported from SW-1A, SW-2, SW-4, SW-5 or SW-6 on the scheduled date of sampling (04/21/2014).
2. TR = Total Recoverable



01103368

KENVIRONS, INC.
CHAIN OF CUSTODY RECORD

452 Versailles Road; Frankfort, KY 40601
www.kenvirons.com (502) 695-4357 Fax: (502) 695-4363

Customer Name: Kenvirons | Submitter No. 9795

Project Number: 2007007

Client: Green Valley LF

Sampled By: BFK III

Send Report To: Bill Knarr

Address: Kenvirons, Inc.

E-mail:

Sample Turn Around Time
Standard: X Rush Date: / /
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location	Sample type please: DW, GW, WW, Soil, Sludge, Other	Number of Containers	Flow (Gal/Min)	Field Turbidity	Field pH	Field Conductance	Field Temperature	Field Dissolved Oxygen	ORP	Z Quote number	Lab use only Sample No.
4/21/14	1305 AM PM		X	SW-3	SW	4	10	—	6.85	672	20.50	—	—	146799	AA14657
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														

Relinquished by: (Signature) Date/Time 4/21/14
BFK III 1730

Relinquished by: (Signature) Date/Time

Relinquished by: (Signature) Date/Time

Received for Lab by: (Signature)

Received by: (Signature)
Sent Via Fed Ex

Received by: (Signature)

Received by: (Signature)

Date 4/22/14 Time 0820

0.6 °C

ROI? Yes / No

Laboratory Use Only	yes	no
Custody seals present/intact?	—	
Broken containers?		—
COC agree with sample labels?	—	
Correct containers for testing?	—	
Headspace issues acceptable?	—	
Holding time(s) acceptable?	—	
Preservative pH's acceptable?		
Was pH left unadjusted?		

Comments:

White - Kenvirons Laboratory
Yellow - Third Party Laboratory
Pink - Sampler

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601
502-695-4357
502-695-4363 (fax)

Green Valley Landfill -ALLIED - Greenup Co., KY Project No. 2007007

Sample Point	Z#	Date	Flow (Sampled)		No Flow	Preceeding Precipitation Event Within 24 Hr. Period	
			YES	NO	YES	YES	NO
SW-1A	1467999	4/21/14	☐	☐	☒	☐	☒
SW-2	1467999	4/21/14	☐	☐	☒	☐	☒
SW-3	1467999	4/21/14	☒	☐	☐	☐	☒
SW-4	1467999	4/21/14	☐	☐	☒	☐	☒
SW-5	1467999	4/21/14	☐	☐	☒	☐	☒
SW-6	1467999	4/21/14	☐	☐	☒	☐	☒

Notes:

TECHNICIAN Bill F. Knarr, III DATE 4/21/14

GROUNDWATER
AND
SURFACE WATER MONITORING
SAMPLE DATA REPORTING FORM

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
SOLID WASTE BRANCH
14 REILLY ROAD
FRANKFORT, KY 40601

RECEIVED
JUN 13 2014
DIVISION OF WASTE MANAGEMENT
SOLID WASTE BRANCH

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(As officially shown on DWM Permit Face)

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William L Chlebowy — 6-10-14
SIGNATURE — DATE

WILLIAM L. CHLEBOWY ; ENVIRONMENTAL MANAGER
NAME AND TITLE - PLEASE PRINT

FACILITY INFORMATION SHEET

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Facility Name Green Valley Landfill
(As officially shown on DWM Permit Face)

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Contact Person: Bill Chlebowy, P.E. Phone No.: 502-209-3816

Contact Person Title: Environmental Manager

Mailing Address: 2157 Highway 151 (Street) Frankfort, KY (City) 40601 (Zip)

SAMPLING PERSONNEL

(IF OTHER THAN LANDFILL OR LABORATORY)

Company: Kenvirons, Inc.

Contact Person: Bill Knarr Phone No.: (502) 695-4357

Mailing Address: 452 Versailles Road (Street) Frankfort, KY (City) 40601 (Zip)

LABORATORY RECORD #1

Laboratory: Pace Analytical Services, Inc. Lab ID No.:

Contact Person: Chris Boyle Phone No.: (317) 243-8304

Mailing Address: 7901 West Morris Street (Street) Indianapolis, IN (City) 46231 (Zip)

LABORATORY RECORD #2

Laboratory: Keystone Laboratories, Inc. Lab ID No.:

Contact Person: Sue Thompson Phone No.: (800)-858-5227

Mailing Address: 600 East 17th Street South (Street) Newton, IA (City) 50208 (Zip)

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL / CONTAINED - QUARTERLY
Facility: Green Valley Landfill
Permit Number: 045-00012

FINDS/UNIT:_____

GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-8086		8000-2931		8000-2932		8000-8085			
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-1		MW-1A		MW-1B		MW-3			
Sample Sequence #															
If a sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment															
Sample Date and Time (Month/Day/Year hour:minutes)						4/21/2014 11:50 AM		4/21/2014 11:10 AM		4/21/2014 12:20 PM		4/21/2014 12:55 PM			
Duplicate ("Y" or "N") [2]						N		N		N		N			
Spilt ("Y" or "N") [3]						N		N		N		N			
Facility Sample ID Number (if applicable)															
Laboratory Sample ID Number (if applicable)						AA14647		AA14648		AA14649		AA14650			
Date of Analysis (Month/Day/Year)						5/14/2014		5/14/2014		5/14/2014		5/14/2014			
Gradient with Respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						Side		Side		Side		Down			
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS		
S0906 - -	0	Static Water Level Elevation	T	Ft. MSL		614.11		617.2		612.76		625.75			
S0907 - -	0	Temperature	T	°C		8.99		11.64		12.57		11.66			
16887-00-6	2	Chloride(s)	T	MG/L	SW846-9251	1.4		3.4		36		2.9			
S0130 - -	0	Chemical Oxygen Demand	T	MG/L	EPA 410.4	< 10		< 10		< 10		< 10			
S0266 - -	0	Total Dissolved Solids	T	MG/L	EPA 160.1	77		220		360		91			
S0268 - -	1	Total Organic Carbon	T	MG/L	SW846-9060	1		< 1		< 1		1.2			
S0145 - -	1	Specific Conductance, Field	T	UMHOS/CM	SW846-9050	67		378		721		117			

[1] AKGWA # is 0000-0000 for any type of blank.

[2] Respond "Y" if the sample was a duplicate of another sample in this report.

[3] Respond "Y" if the sample was split and analyzed by separate laboratories.

[4] Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.

[5] "T" = Total; "D" = Dissolved

[6] "<" indicates a non-detect; do not use "ND" or "BDL".
Value then shown is Practical Quantification Limit.

STANDARD FLAGS:

J = Estimated Value
B = Analyte found in blank
A = Average Value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution factor
X = Exceeds Regulatory Limit

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL / CONTAINED - QUARTERLY
Facility: Green Valley Landfill
Permit Number: 045-00012

FINDS/UNIT:_____

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-8086		8000-2931		8000-2932		8000-8085	
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-1		MW-1A		MW-1B		MW-3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0595 - -	0	Nitrate & Nitrite	T	MG/L	EPA 353.2	0.08		0.19		0.46		0.08	
S0586 - -	0	Total Organic Halides	T	MG/L	SW846-9020B	< 0.01		< 0.01		< 0.01		< 0.01	
S0296 - -	0	pH, Field	T	Units	SW846-9049A	5.8		6.97		7.44		6.2	
7440-36-0	0	Antimony	T	MG/L	SW846-6010A	< 0.006		< 0.006		< 0.006		< 0.006	
7440-38-2	0	Arsenic	T	MG/L	SW846-6010A	< 0.001		< 0.001		< 0.001		0.0027	
7440-39-3	0	Barium	T	MG/L	SW846-6010A	0.031		0.053		0.055		0.1	
7440-41-7	0	Beryllium	T	MG/L	SW846-6010A	< 0.01		< 0.01		< 0.01		< 0.01	
7440-43-9	0	Cadmium	T	MG/L	SW846-6010A	< 0.005		< 0.005		< 0.005		< 0.005	
7440-47-3	0	Chromium	T	MG/L	SW846-6010A	< 0.02		< 0.02		< 0.02		< 0.02	
7440-48-4	0	Cobalt	T	MG/L	SW846-6010A	< 0.02		< 0.02		< 0.02		< 0.02	
7440-50-8	0	Copper	T	MG/L	SW846-6010A	< 0.01		< 0.01		< 0.01		< 0.01	
7439-89-6	0	Iron	T	MG/L	SW846-6010A	1.4		1		0.13		17	
7439-92-1	0	Lead	T	MG/L	SW846-6010A	< 0.03		< 0.03		< 0.03		< 0.03	
7439-97-6	0	Mercury	T	MG/L	SW846-7470A	< 0.0002		< 0.0002		< 0.0002		< 0.0002	
7440-02-0	0	Nickel	T	MG/L	SW846-6010A	< 0.02		< 0.02		< 0.02		< 0.02	
7782-49-2	0	Selenium	T	MG/L	SW846-6010A	< 0.001		< 0.001		< 0.001		< 0.001	
7440-22-4	0	Silver	T	MG/L	SW846-6010A	< 0.01		< 0.01		< 0.01		< 0.01	
7440-23-5	0	Sodium	T	MG/L	SW846-6010A	1.8		22		160		3.9	
7440-28-0	0	Thallium	T	MG/L	SW846-6010A	< 0.002		< 0.002		< 0.002		< 0.002	
7440-62-2	0	Vanadium	T	MG/L	SW846-6010A	< 0.25		< 0.25		< 0.25		< 0.25	
7440-66-6	0	Zinc	T	MG/L	SW846-6010A	< 0.01		< 0.01		< 0.01		0.019	
108-05-4	2	Acetic acid ethenyl ester	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-8086		8000-2931		8000-2932		8000-8085	
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-1		MW-1A		MW-1B		MW-3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
67-64-1	0	Acetone	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
107-02-8	3	Acrolein	T	MG/L	SW846-8260A	< 0.06		< 0.06		< 0.06		< 0.06	
107-13-1	0	Acrylonitrile	T	MG/L	SW846-8260A	< 0.06		< 0.06		< 0.06		< 0.06	
71-43-2	0	Benzene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
108-90-7	1	Benzene, chloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
1330-20-7	3	Benzene, dimethyl	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
100-42-5	1	Benzene, ethenyl-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
108-88-3	1	Benzene, methyl	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-97-5	0	Bromochloromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-27-4	3	Bromodichloromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-25-2	0	Bromoform	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-83-9	0	Bromomethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
78-93-3	0	2-Butanone (methyl ethyl ketone)	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
110-57-6	0	2-Butene, 1,4-dichloro-, (E)-	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
75-15-0	0	Carbon Disulfide	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
75-00-3	0	Chloroethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
67-66-3	0	Chloroform	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-87-3	0	Chloromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
156-59-2	0	cis-1,2-Dichloroethene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-95-3	0	Dibromomethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-71-8	0	Dichlorodifluoromethane	T	MG/L									
75-34-3	0	1,1-Dichloroethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-8086		8000-2931		8000-2932		8000-8085	
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-1		MW-1A		MW-1B		MW-3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
107-06-2	0	1,2-Dichloroethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-35-4	0	1,1-Dichloroethene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
540-36-3	0	1,4-Difluorobenzene	T	MG/L									
106-93-4	6	Ethane, 1,2-dibromo	T	MG/L	SW846-8011	< 0.00005		< 0.00005		< 0.00005		< 0.00005	
79-34-5	4	Ethane, 1,1,2,2-Tetrachlroro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
71-55-6	5	Ethane, 1,1,1-Trichloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
79-00-5	3	Ethane, 1,1,2-Trichloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
630-20-6	3	Ethane, 1,1,1,2-Tetrachloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
64-17-5	0	Ethanol	T	MG/L									
75-01-4	2	Ethene, Chloro-	T	MG/L	SW846-8260A	< 0.002		< 0.002		< 0.002		< 0.002	
110-75-8	1	Ethene, (2-Chloroethyoxy)-	T	MG/L									
127-18-4	7	Ethene, Tetrachloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
79-01-6	5	Ethene, Trichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
100-41-4	0	Ethylbenzene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
97-63-2	0	Ethyl methacrylate	T	MG/L									
591-78-6	3	2-Hexanone	T	MG/L	SW846-8260A	< 0.05		< 0.05		< 0.05		< 0.05	
74-88-5	4	Iodomethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
124-48-1	4	Methane, Dibromochloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
56-23-5	1	Methane, Tetrachloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-09-2	0	Methylene Chloride	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
108-10-1	4	4-Methyl-2-pentanone	T	MG/L	SW846-8260A	< 0.05		< 0.05		< 0.05		< 0.05	
96-12-8	2	Propane, 1,2-Dibromo-3-chloro-	T	MG/L	SW846-8011	< 0.0002		< 0.0002		< 0.0002		< 0.0002	

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-8086		8000-2931		8000-2932		8000-8085	
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-1		MW-1A		MW-1B		MW-3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
78-87-5	1	Propane, 1,2-Dichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
10061-02-6	3	1-Propene, 1,3-Dichloro-, (E)	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
10061-01-5	4	1-Propene, 1,3-Dichloro-, (Z)	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
156-60-5	2	Trans-1,2-Dichloroethene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-69-4	0	Trichlorofluoromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
96-18-4	0	1,2,3-Trichloropropane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
95-50-1	7	Benzene, 1,2-Dichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
106-46-7	6	Benzene, 1,4-Dichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL / CONTAINED - QUARTERLY
Facility: Green Valley Landfill
Permit Number: 045-00012

FINDS/UNIT:_____

GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER[1], Facility Well/Spring Number						8005-7101		8005-7102		8005-7103				
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-28C		MW-28D		MW-28E		FIELD BLANK		
Sample Sequence #														
If a sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment												F		
Sample Date and Time (Month/Day/Year hour:minutes)						4/21/2014 3:15 PM		4/21/2014 2:05 PM		4/21/2014 2:35 PM		4/21/2014 10:55 AM		
Duplicate ("Y" or "N") [2]						N		N		N		N		
Spilt ("Y" or "N") [3]						N		N		N		N		
Facility Sample ID Number (if applicable)														
Laboratory Sample ID Number (if applicable)						AA14651		AA14652		AA14653		AA14654		
Date of Analysis (Month/Day/Year)						5/14/2014		5/14/2014		5/14/2014		5/14/2014		
Gradient with Respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						Down		Down		Down				
CAS RN[4]		CONSTITUENT	T D[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	
S0906 - -	0	Static Water Level Elevation	T	Ft. MSL		670.22		670.4		668.06				
S0907 - -	0	Temperature	T	°C		12.32		12.79		14.87				
16887-00-6	2	Chloride(s)	T	MG/L	SW846-9251	12		19		1.9		< 0.25		
S0130 - -	0	Chemical Oxygen Demand	T	MG/L	EPA 410.4	< 10		< 10		< 10		< 10		
S0266 - -	0	Total Dissolved Solids	T	MG/L	EPA 160.1	300		420		180		< 10		
S0268 - -	1	Total Organic Carbon	T	MG/L	SW846-9060	2.6		1.2		< 1		< 1		
S0145 - -	1	Specific Conductance, Field	T	UMHOS/CM	SW846-9050	494		653		319				

[1] AKGWA # is 0000-0000 for any type of blank.

[2] Respond "Y" if the sample was a duplicate of another sample in this report.

[3] Respond "Y" if the sample was split and analyzed by separate laboratories.

[4] Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.

[5] "T" = Total; "D" = Dissolved

[6] "<" indicates a non-detect; do not use "ND" or "BDL".
Value then shown is Practical Quantification Limit.

STANDARD FLAGS:

J = Estimated Value
B = Analyte found in blank
A = Average Value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution factor
X = Exceeds Regulatory Limit

Division of Waste Management
Solid Waste Branch
14 Reilly Road
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Facility: Green Valley Landfill
Permit Number: 045-00012

FINDS/UNIT:_____

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8005-7101		8005-7102		8005-7103			
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-28C		MW-28D		MW-28E		FIELD BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0595 - -	0	Nitrate & Nitrite	T	MG/L	EPA 353.2	0.29		0.054		0.051		< 0.05	
S0586 - -	0	Total Organic Halides	T	MG/L	SW846-9020B	0.045		< 0.01		< 0.01		< 0.01	
S0296 - -	0	pH, Field	T	Units	SW846-9049A	4.92		5.02		6.18			
7440-36-0	0	Antimony	T	MG/L	SW846-6010A	< 0.006		< 0.006		< 0.006		< 0.006	
7440-38-2	0	Arsenic	T	MG/L	SW846-6010A	0.017		< 0.001		< 0.001		< 0.001	
7440-39-3	0	Barium	T	MG/L	SW846-6010A	0.024		0.034		0.17		< 0.01	
7440-41-7	0	Beryllium	T	MG/L	SW846-6010A	< 0.01		< 0.01		< 0.01		< 0.01	
7440-43-9	0	Cadmium	T	MG/L	SW846-6010A	< 0.005		< 0.005		< 0.005		< 0.005	
7440-47-3	0	Chromium	T	MG/L	SW846-6010A	< 0.02		< 0.02		< 0.02		< 0.02	
7440-48-4	0	Cobalt	T	MG/L	SW846-6010A	< 0.02		< 0.02		< 0.02		< 0.02	
7440-50-8	0	Copper	T	MG/L	SW846-6010A	0.022		< 0.01		< 0.01		< 0.01	
7439-89-6	0	Iron	T	MG/L	SW846-6010A	160		1.3		0.17		< 0.02	
7439-92-1	0	Lead	T	MG/L	SW846-6010A	0.038		< 0.03		< 0.03		< 0.03	
7439-97-6	0	Mercury	T	MG/L	SW846-7470A	< 0.0002		< 0.0002		< 0.0002		< 0.0002	
7440-02-0	0	Nickel	T	MG/L	SW846-6010A	0.062		0.022		< 0.02		< 0.02	
7782-49-2	0	Selenium	T	MG/L	SW846-6010A	0.0023		< 0.001		< 0.001		< 0.001	
7440-22-4	0	Silver	T	MG/L	SW846-6010A	< 0.01		< 0.01		< 0.01		< 0.01	
7440-23-5	0	Sodium	T	MG/L	SW846-6010A	14		33		14		< 0.1	
7440-28-0	0	Thallium	T	MG/L	SW846-6010A	< 0.002		< 0.002		< 0.002		< 0.002	
7440-62-2	0	Vanadium	T	MG/L	SW846-6010A	< 0.25		< 0.25		< 0.25		< 0.25	
7440-66-6	0	Zinc	T	MG/L	SW846-6010A	0.099		0.02		< 0.01		< 0.01	
108-05-4	2	Acetic acid ethenyl ester	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8005-7101		8005-7102		8005-7103			
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-28C		MW-28D		MW-28E		FIELD BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
67-64-1	0	Acetone	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
107-02-8	3	Acrolein	T	MG/L	SW846-8260A	< 0.06		< 0.06		< 0.06		< 0.06	
107-13-1	0	Acrylonitrile	T	MG/L	SW846-8260A	< 0.06		< 0.06		< 0.06		< 0.06	
71-43-2	0	Benzene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
108-90-7	1	Benzene, chloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
1330-20-7	3	Benzene, dimethyl	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
100-42-5	1	Benzene, ethenyl-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
108-88-3	1	Benzene, methyl	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-97-5	0	Bromochloromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-27-4	3	Bromodichloromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-25-2	0	Bromoform	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-83-9	0	Bromomethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
78-93-3	0	2-Butanone (methyl ethyl ketone)	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
110-57-6	0	2-Butene, 1,4-dichloro-, (E)-	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
75-15-0	0	Carbon Disulfide	T	MG/L	SW846-8260A	< 0.099		< 0.099		< 0.099		< 0.099	
75-00-3	0	Chloroethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
67-66-3	0	Chloroform	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-87-3	0	Chloromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
156-59-2	0	cis-1,2-Dichloroethene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
74-95-3	0	Dibromomethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-71-8	0	Dichlorodifluoromethane	T	MG/L									
75-34-3	0	1,1-Dichloroethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8005-7101		8005-7102		8005-7103			
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-28C		MW-28D		MW-28E		FIELD BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
107-06-2	0	1,2-Dichloroethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-35-4	0	1,1-Dichloroethene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
540-36-3	0	1,4-Difluorobenzene	T	MG/L									
106-93-4	6	Ethane, 1,2-dibromo	T	MG/L	SW846-8011	< 0.00005		< 0.00005		< 0.00005		< 0.00005	
79-34-5	4	Ethane, 1,1,2,2-Tetrachlroro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
71-55-6	5	Ethane, 1,1,1-Trichloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
79-00-5	3	Ethane, 1,1,2-Trichloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
630-20-6	3	Ethane, 1,1,1,2-Tetrachloro	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
64-17-5	0	Ethanol	T	MG/L									
75-01-4	2	Ethene, Chloro-	T	MG/L	SW846-8260A	< 0.002		< 0.002		< 0.002		< 0.002	
110-75-8	1	Ethene, (2-Chloroethyoxy)-	T	MG/L									
127-18-4	7	Ethene, Tetrachloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
79-01-6	5	Ethene, Trichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
100-41-4	0	Ethylbenzene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
97-63-2	0	Ethyl methacrylate	T	MG/L									
591-78-6	3	2-Hexanone	T	MG/L	SW846-8260A	< 0.05		< 0.05		< 0.05		< 0.05	
74-88-5	4	Iodomethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
124-48-1	4	Methane, Dibromochloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
56-23-5	1	Methane, Tetrachloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-09-2	0	Methylene Chloride	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
108-10-1	4	4-Methyl-2-pentanone	T	MG/L	SW846-8260A	< 0.05		< 0.05		< 0.05		< 0.05	
96-12-8	2	Propane, 1,2-Dibromo-3-chloro-	T	MG/L	SW846-8011	< 0.0002		< 0.0002		< 0.0002		< 0.0002	

Division of Waste Management
Solid Waste Branch
14 Reilly Road
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RESIDENTIAL / CONTAINED - QUARTERLY
Facility: Green Valley Landfill
Permit Number: 045-00012

FINDS/UNIT:_____

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8005-7101		8005-7102		8005-7103			
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						MW-28C		MW-28D		MW-28E		FIELD BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
78-87-5	1	Propane, 1,2-Dichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
10061-02-6	3	1-Propene, 1,3-Dichloro-, (E)	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
10061-01-5	4	1-Propene, 1,3-Dichloro-, (Z)	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
156-60-5	2	Trans-1,2-Dichloroethene	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
75-69-4	0	Trichlorofluoromethane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
96-18-4	0	1,2,3-Trichloropropane	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
95-50-1	7	Benzene, 1,2-Dichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	
106-46-7	6	Benzene, 1,4-Dichloro-	T	MG/L	SW846-8260A	< 0.005		< 0.005		< 0.005		< 0.005	

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Facility: Green Valley Landfill

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GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER[1], Facility Well/Spring Number													
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						TRIP BLANK							
Sample Sequence #													
If a sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						T							
Sample Date and Time (Month/Day/Year hour:minutes)													
Duplicate ("Y" or "N") [2]						N							
Spilt ("Y" or "N") [3]						N							
Facility Sample ID Number (if applicable)													
Laboratory Sample ID Number (if applicable)						AA14655							
Date of Analysis (Month/Day/Year)						4/25/2014							
Gradient with Respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)													
CAS RN[4]		CONSTITUENT	T D[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS
S0906 - -	0	Static Water Level Elevation	T	Ft. MSL									
S0907 - -	0	Temperature	T	°C									
16887-00-6	2	Chloride(s)	T	MG/L	SW846-9251								
S0130 - -	0	Chemical Oxygen Demand	T	MG/L	EPA 410.4								
S0266 - -	0	Total Dissolved Solids	T	MG/L	EPA 160.1								
S0268 - -	1	Total Organic Carbon	T	MG/L	SW846-9060								
S0145 - -	1	Specific Conductance, Field	T	UMHOS/CM	SW846-9050								

[1] AKGWA # is 0000-0000 for any type of blank.

[2] Respond "Y" if the sample was a duplicate of another sample in this report.

[3] Respond "Y" if the sample was split and analyzed by separate laboratories.

[4] Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.

[5] "T" = Total; "D" = Dissolved

[6] "<" indicates a non-detect; do not use "ND" or "BDL".
Value then shown is Practical Quantification Limit.

STANDARD FLAGS:

J = Estimated Value

B = Analyte found in blank

A = Average Value

N = Presumptive ID

D = Concentration from analysis of a secondary dilution factor

X = Exceeds Regulatory Limit

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number													
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						TRIP BLANK							
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS
S0595 - -	0	Nitrate & Nitrite	T	MG/L	EPA 353.2								
S0586 - -	0	Total Organic Halides	T	MG/L	SW846-9020B								
S0296 - -	0	pH, Field	T	Units	SW846-9049A								
7440-36-0	0	Antimony	T	MG/L	SW846-6010A								
7440-38-2	0	Arsenic	T	MG/L	SW846-6010A								
7440-39-3	0	Barium	T	MG/L	SW846-6010A								
7440-41-7	0	Beryllium	T	MG/L	SW846-6010A								
7440-43-9	0	Cadmium	T	MG/L	SW846-6010A								
7440-47-3	0	Chromium	T	MG/L	SW846-6010A								
7440-48-4	0	Cobalt	T	MG/L	SW846-6010A								
7440-50-8	0	Copper	T	MG/L	SW846-6010A								
7439-89-6	0	Iron	T	MG/L	SW846-6010A								
7439-92-1	0	Lead	T	MG/L	SW846-6010A								
7439-97-6	0	Mercury	T	MG/L	SW846-7470A								
7440-02-0	0	Nickel	T	MG/L	SW846-6010A								
7782-49-2	0	Selenium	T	MG/L	SW846-6010A								
7440-22-4	0	Silver	T	MG/L	SW846-6010A								
7440-23-5	0	Sodium	T	MG/L	SW846-6010A								
7440-28-0	0	Thallium	T	MG/L	SW846-6010A								
7440-62-2	0	Vanadium	T	MG/L	SW846-6010A								
7440-66-6	0	Zinc	T	MG/L	SW846-6010A								
108-05-4	2	Acetic acid ethenyl ester	T	MG/L	SW846-8260A	< 0.005							

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number													
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						TRIP BLANK							
CAS RN[4]		CONSTITUENT	T D[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS
67-64-1	0	Acetone	T	MG/L	SW846-8260A	< 0.099							
107-02-8	3	Acrolein	T	MG/L	SW846-8260A	< 0.06							
107-13-1	0	Acrylonitrile	T	MG/L	SW846-8260A	< 0.06							
71-43-2	0	Benzene	T	MG/L	SW846-8260A	< 0.005							
108-90-7	1	Benzene, chloro	T	MG/L	SW846-8260A	< 0.005							
1330-20-7	3	Benzene, dimethyl	T	MG/L	SW846-8260A	< 0.005							
100-42-5	1	Benzene, ethenyl-	T	MG/L	SW846-8260A	< 0.005							
108-88-3	1	Benzene, methyl	T	MG/L	SW846-8260A	< 0.005							
74-97-5	0	Bromochloromethane	T	MG/L	SW846-8260A	< 0.005							
75-27-4	3	Bromodichloromethane	T	MG/L	SW846-8260A	< 0.005							
75-25-2	0	Bromoform	T	MG/L	SW846-8260A	< 0.005							
74-83-9	0	Bromomethane	T	MG/L	SW846-8260A	< 0.005							
78-93-3	0	2-Butanone (methyl ethyl ketone)	T	MG/L	SW846-8260A	< 0.099							
110-57-6	0	2-Butene, 1,4-dichloro-, (E)-	T	MG/L	SW846-8260A	< 0.099							
75-15-0	0	Carbon Disulfide	T	MG/L	SW846-8260A	< 0.099							
75-00-3	0	Chloroethane	T	MG/L	SW846-8260A	< 0.005							
67-66-3	0	Chloroform	T	MG/L	SW846-8260A	< 0.005							
74-87-3	0	Chloromethane	T	MG/L	SW846-8260A	< 0.005							
156-59-2	0	cis-1,2-Dichloroethene	T	MG/L	SW846-8260A	< 0.005							
74-95-3	0	Dibromomethane	T	MG/L	SW846-8260A	< 0.005							
75-71-8	0	Dichlorodifluoromethane	T	MG/L									
75-34-3	0	1,1-Dichloroethane	T	MG/L	SW846-8260A	< 0.005							

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facllity Well/Spring Number															
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						TRIP BLANK									
CAS RN[4]		CONSTITUENT	TD[6]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS
107-06-2	0	1,2-Dichloroethane	T	MG/L	SW846-8260A	< 0.005							
75-35-4	0	1,1-Dichloroethene	T	MG/L	SW846-8260A	< 0.005							
540-36-3	0	1,4-Difluorobenzene	T	MG/L									
106-93-4	6	Ethane, 1,2-dibromo	T	MG/L	SW846-8011								
79-34-5	4	Ethane, 1,1,2,2-Tetrachlroro	T	MG/L	SW846-8260A	< 0.005							
71-55-6	5	Ethane, 1,1,1-Trichloro	T	MG/L	SW846-8260A	< 0.005							
79-00-5	3	Ethane, 1,1,2-Trichloro	T	MG/L	SW846-8260A	< 0.005							
630-20-6	3	Ethane, 1,1,1,2-Tetrachloro	T	MG/L	SW846-8260A	< 0.005							
64-17-5	0	Ethanol	T	MG/L									
75-01-4	2	Ethene, Chloro-	T	MG/L	SW846-8260A	< 0.002							
110-75-8	1	Ethene, (2-Chloroethyoxy)-	T	MG/L									
127-18-4	7	Ethene, Tetrachloro-	T	MG/L	SW846-8260A	< 0.005							
79-01-6	5	Ethene, Trichloro-	T	MG/L	SW846-8260A	< 0.005							
100-41-4	0	Ethylbenzene	T	MG/L	SW846-8260A	< 0.005							
97-63-2	0	Ethyl methacrylate	T	MG/L									
591-78-6	3	2-Hexanone	T	MG/L	SW846-8260A	< 0.05							
74-88-5	4	Iodomethane	T	MG/L	SW846-8260A	< 0.005							
124-48-1	4	Methane, Dibromochloro-	T	MG/L	SW846-8260A	< 0.005							
56-23-5	1	Methane, Tetrachloro-	T	MG/L	SW846-8260A	< 0.005							
75-09-2	0	Methylene Chloride	T	MG/L	SW846-8260A	< 0.005							
108-10-1	4	4-Methyl-2-pentanone	T	MG/L	SW846-8260A	< 0.05							
96-12-8	2	Propane, 1,2-Dibromo-3-chloro-	T	MG/L	SW846-8011								

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

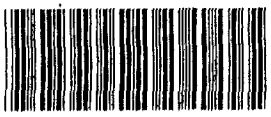
RESIDENTIAL / CONTAINED - QUARTERLY

Facility: Green Valley Landfill
Permit Number: 045-00012

FINDS/UNIT:_____

GROUNDWATER SAMPLE ANALYSIS (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number													
Facility's Local Well or Spring Number (e.g. MW-1, MW-2, etc.)						TRIP BLANK							
CAS RN[4]		CONSTITUENT	TD[5]	Unit of MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS	DETECTED VALUE OR PQL6	FLAGS
78-87-5	1	Propane, 1,2-Dichloro-	T	MG/L	SW846-8260A	< 0.005							
10061-02-6	3	1-Propene, 1,3-Dichloro-, (E)	T	MG/L	SW846-8260A	< 0.005							
10061-01-5	4	1-Propene, 1,3-Dichloro-, (Z)	T	MG/L	SW846-8260A	< 0.005							
156-60-5	2	Trans-1,2-Dichloroethene	T	MG/L	SW846-8260A	< 0.005							
75-69-4	0	Trichlorofluoromethane	T	MG/L	SW846-8260A	< 0.005							
96-18-4	0	1,2,3-Trichloropropane	T	MG/L	SW846-8260A	< 0.005							
95-50-1	7	Benzene, 1,2-Dichloro-	T	MG/L	SW846-8260A	< 0.005							
106-46-7	6	Benzene, 1,4-Dichloro-	T	MG/L	SW846-8260A	< 0.005							



01103369

KENVIRONS, INC.
CHAIN OF CUSTODY RECORD

452 Versailles Road; Frankfort, KY 40601
www.kenvirons.com (502) 695-4357 Fax: (502) 695-4363

Customer Name: Kenvirons | Submitter No. 9795 | Send Report To: Bill Knarr

Project Number: 2007008 | Address: Kenvirons, Inc.

Client: [redacted] Green Valley LF | E-mail:

Sampled By: BFK III

Sample Turn Around Time
Standard: X Rush Date: ____/____/____
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location	Sample type: Select: DW, GW, WW, Soil, Sludge, Other	Number of Containers	Flow (Gal/Min)	Field Turbidity	Field pH	Field Conductance	Field Temperature	Field Dissolved Oxygen	ORP	Z Quote number	Lab use only Sample No.
4/21/14	1150 AM PM		X	MW-1	GW	12	—	930.3	5.80	67	8.99	6.19	40.2	144757	AA14647
4/21/14	1110 AM PM		X	MW-1A	GW	12	—	946.7	6.97	378	11.64	4.43	-19.4	144757	648
4/21/14	1220 AM PM		X	MW-1B	GW	12	—	948.3	7.44	721	12.57	1.26	-44.3	144757	649
4/21/14	1255 AM PM		X	MW-3	GW	12	—	994.6	6.20	117	11.606	2.06	21.1	144757	650
4/21/14	1515 AM PM		X	MW-28C	GW	12	—	1001.7	4.92	494	12.32	0.80	89.2	144757	651
4/21/14	1405 AM PM		X	MW-28D	GW	12	—	941.3	5.02	653	12.79	3.94	83.3	144757	652
4/21/14	1435 AM PM		X	MW-28E	GW	12	—	951.5	6.18	319	14.87	6.93	22.8	144757	653
4/21/14	1055 AM PM		X	FB	—	12	—	—	—	—	—	—	—	144757	654
	AM PM			TRIP BLANK		2									655
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														

Relinquished by: (Signature) BFK III Date/Time 4/21/14 1730
Received by: (Signature) Sent Via Fed Ex

Relinquished by: (Signature) Date/Time
Received by: (Signature)

Relinquished by: (Signature) Date/Time
Received by: (Signature)

Received for Lab by: (Signature)
Date 4/22/14 Time 0826
0.6 °C
ROI? Yes No

Laboratory Use Only	yes	no
Custody seals present/intact?		—
Broken containers?		—
COC agree with sample labels?	—	
Correct containers for testing?	—	
Headspace issues acceptable?	—	
Holding time(s) acceptable?	—	
Preservative pH's acceptable?		
Was pH left unadjusted?		

Comments: Short Hold Nitrate!

White - Kenvirons Laboratory
Yellow - Third Party Laboratory
Pink - Sampler

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Global Presence
Personal Attention

592

Ms. Deborah DeLong
Kentucky Department for Environmental Protection
Division of Waste Management
Solid Waste Branch
200 Fair Oaks Lane, 2nd Floor
Frankfort, KY 40601

June 12, 2014

Dear Ms. DeLong:

Second Quarter 2014 Groundwater Sampling Event, Statistical Analysis Report
Green Valley Landfill, Ashland, Kentucky

On behalf of Green Valley Landfill, Herst & Associates, Inc. is submitting a hardcopy of the Second Quarter 2014 Groundwater Statistical Analysis Report.

Should you have any questions or concerns, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Ward Herst, PG
Managing Partner

Steve Jett
Senior Hydrogeologist

Attachment: *Groundwater Statistical Analysis Report (1 Copy)*

cc: *Green Valley Landfill (1 hardcopy)*
Bill Chlebowy, Republic Services, Inc. (PDF via email)

RECEIVED
JUN 17 2014
DIVISION OF WASTE MANAGEMENT
SOLID WASTE BRANCH

4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

Groundwater
Statistical Analysis Report

Second Quarter 2014
Sampling Event

Green Valley Landfill
Ashland, Kentucky
Permit No. 045-00012

June 2014



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4631 North St. Peters Parkway
St. Charles, Missouri 63304
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3.0 SITE HYDROGEOLOGY 1

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Table 2 Background Used in Statistical Reporting
Table 3 Intra-Well Prediction Limit Exceedances

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Appendix A Potentiometric Surface Map
Appendix B Statistical Evaluations
Appendix C Laboratory Analytical Report and Field Information Logs

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1.0 INTRODUCTION

On behalf of Green Valley Landfill General Partnership, Herst & Associates, Inc. statistically evaluated the Second Quarter (April) 2014 groundwater data. Sampling was performed by Kenvirons, Inc. and analytical testing was performed by Pace Analytical Services, Inc. The statistical evaluation software package utilized, *Sanitas™*, follows a documented decision logic that incorporates the following applicable guidance document: USEPA "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance" (March 2009).

2.0 SITE BACKGROUND AND MONITORING NETWORK

Herst & Associates, Inc. statistically analyzed parameters from the Green Valley Landfill Second Quarter 2014 monitoring event using intra-well prediction limits from the historical background data. Prediction limits are considered a powerful tool for groundwater statistical analysis, when feasible, due to their inherent low false negative and false positive rates utilizing confirmatory resampling, if necessary. **Table 1** lists the groundwater monitoring wells at the site. The site submitted a Groundwater Statistical Monitoring Plan on December 9, 2011. The Kentucky Department for Environmental Protection (KDEP) approved the statistical analysis plan for the monitoring wells in correspondence dated August 16, 2012. **Table 2** details background dates and parameters used for statistical evaluations at the site. The background database for the Green Valley Landfill will be updated approximately every one to two years.

The facility received KDEP permission on August 16, 2012 to reduce the groundwater program to annual sampling for parameters in KAR Title 401 Chapter 48:300 Section 11(3)(a) and (b) and quarterly sampling for parameters in KAR Title 401 Chapter 48:300 Section 11(3)(f).

During the Second Quarter 2014 sampling event, each well was sampled for the annual parameters listed in Section 11(3)(a) and (b). A comparison of parameters to their respective KDEP Maximum Contaminant Level (MCL) was required for the Second Quarter 2014 data in accordance with 401 KAR 47.030. There were no parameters that exceeded an MCL specified in 401 KAR 47.030 Section 6(1) during the Second Quarter 2014 event.

3.0 SITE HYDROGEOLOGY

As identified in the *Modification to Permit No. 045-00012,* dated July 1997 by Kenvirons, Inc. hydrogeologic conditions at the site consist of three aquifers: alluvial/fracture zone, Princess No. 3 coal zone, and the Fire Clay coal zone. Recharge for the alluvial/fracture zone is from secondary porosity due to naturally occurring stress relief fractures in the upper zone of the bedrock. The direction of flow in the alluvium/fracture zone aquifer is a subdued reflection of the topographic relief with the area of recharge limited to the watershed divide.

The alluvium/fracture zone is considered the uppermost aquifer at the site and is utilized for detection of possible facility impacts. **Appendix A** provides a potentiometric surface map for the alluvial/fracture zone utilizing groundwater level data from the Second Quarter 2014 event. Groundwater flow direction for the Second Quarter 2014 event is generally to the west/northwest, consistent with past events. Groundwater flow rate for the Second Quarter 2014 event was estimated to be 3.5 feet/year. Flow rate calculations are available in **Appendix A**.

4.0 STATISTICAL PROCEDURES

The *Sanitas*™ program was utilized to compile and statistically evaluate the data for the April 2014 sampling event. Summary tables for the intra-well prediction interval analysis are available in **Appendix B**.

4.1 Outlier Analysis

The background data were evaluated for the presence of statistical outliers. Methodologies for determining a statistical outlier are defined in the EPA document, Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities – Unified Guidance (March 2009). Any statistical outliers that were determined were removed from the background data set prior to performing prediction interval statistical analysis. According to the EPA guidance documents above, data that are not normally or log-normally distributed are not recommended for evaluation of outliers. In cases where the data were not normally or log-normally distributed, outliers were not removed from the data set. Background outliers flagged for removal are identified on the statistical plots provided in **Appendix B**.

4.2 Intra-Well Prediction Intervals

The prediction interval is a statistical method used to compare a single observation to a group of observations. The prediction interval is calculated to include observations from the same population with a specified confidence. In groundwater monitoring, a prediction interval approach may be used to make comparisons between background and compliance data. The interval is developed to contain all future observations, within a certain probability. For the site, intra-well prediction intervals have been developed based on a 99% confidence that future observations will fall within the range. If any future observation exceeds the prediction interval, this is considered statistically significant evidence that the observation is not representative of the background group.

During parametric prediction interval analysis, the mean and the standard deviation are calculated for the raw or transformed background data. The number of comparison observations, *K*, is defined to be included in the interval. If less than 15% of the background observations are nondetects, the nondetects are replaced with one half of the reporting limit prior to performing the analysis. If more than 15% but less than 50% of the background data are below the reporting limit, the data's sample mean and standard deviation are adjusted according to the Kaplan-Meier method. However, when the background data are not transformed-normal or contain greater than 50% observations below the reporting limit, *Sanitas*™ automatically constructs a nonparametric prediction interval. During nonparametric analysis, the highest value from the background data is used to set the upper limit of the prediction interval.

During the April 2014 event, three results exceeded an intra-well prediction limit: total copper, total iron, and total zinc at MW-28C. Copper, iron, and zinc do not have an established National Primary Drinking Water Standard-Maximum Contaminant Level (MCL) or KDEP MCL. **Table 3** summarizes the April 2014 prediction limit exceedance. Included in **Appendix B** is a prediction interval summary table.

The April 2014 total copper concentration at MW-28C (0.022 mg/L) was higher than the statistical limit (0.005 mg/L) and had not previously been detected at MW-28C (<0.01 mg/L). The April 2014 total iron concentration at MW-28C (160 mg/L) was higher than the statistical limit (72 mg/L) and above historical values at MW-28C (1.2 to 72 mg/L). The April 2014 total

zinc concentration at MW-28C (0.099 mg/L) was higher than the statistical limit (0.082 mg/L) and above historical values at MW-28C (0.012 to 0.069 mg/L).

The screened interval for well MW-28C is from 666.5 fmsl to 661.5 fmsl. The screened interval for adjacent well MW-28D is from 668.9 fmsl to 658.9 fmsl. Therefore, well MW-28D also monitors the same groundwater unit (alluvium/fracture zone) as MW-28C. The screened interval for adjacent well MW-28E is from 659.7 fmsl to 649.7 fmsl. Therefore, MW-28E also monitors a portion of the same groundwater unit (fracture zone) as MW-28D. The April 2014 concentrations at MW-28D for total copper (<0.01 mg/L), total iron (1.3 mg/L), and total zinc (0.02 mg/L) are consistent with historical data at MW-28D. The April 2014 concentrations at MW-28E for total copper (<0.01 mg/L), total iron (0.17 mg/L), and total zinc (<0.01 mg/L) are consistent with historical data at MW-28E. The lack of significant copper, iron, and zinc at adjacent wells MW-28D and MW-28E is an indication of the limited elevated copper, iron, and zinc in this portion of the site.

During the April 2014 event, the reported laboratory turbidity values for the groundwater well samples ranged from 0.63 to 75 NTU, with the exception of well MW-28C (350 NTU). Several total metal concentrations were reported at anomalously higher concentrations at MW-28C during the April 2014 event. It is recommended that well MW-28C be redeveloped in effort to lower suspended sediment and total metal concentrations (i.e. copper, iron, and zinc).

Included in **Appendix B** are time series plots for each of the parameters statistically analyzed for this reporting period. **Appendix C** contains a copy of the laboratory analytical report and field information logs for the April 2014 event.

5.0 STATISTICAL RESULTS SUMMARY

During the April 2014 event, three results exceeded an intra-well prediction limit: total copper, total iron, and total zinc at MW-28C. Copper, iron, and zinc do not have an established National Primary Drinking Water Standard-Maximum Contaminant Level (MCL) or KDEP MCL.

As noted in Section 4.2, the April 2014 concentrations appear attributable to turbid conditions and not related to the landfill. According to the site, well MW-28C will be redeveloped in effort to lower suspended sediment and total metal concentrations. Upon redevelopment, well MW-28C will be resampled for total and dissolved metals. The total metal resampling results will be utilized to verify the Second Quarter (April) 2014 exceedances. The dissolve metal results will be utilized to supplement the total metal results. The resampling is expected to occur in conjunction with the upcoming Third Quarter 2014 event.

TABLES

TABLE 1 GROUNDWATER MONITORING WELLS GREEN VALLEY LANDFILL
MW-1, MW-1A, MW-1B, MW-3, MW-28C, MW-28D, MW-28E

TABLE 2 BACKGROUND DATA USED IN STATISTICAL REPORTING GREEN VALLEY LANDFILL		
Well	**Parameters**	**Background Dates**
MW-1, MW-1A, MW-1B, MW-3	Annual	9/1992 - 5/2013
	Quarterly	9/1992 - 11/2013
MW-28C, MW-28D, MW-28E	Annual	10/2009 - 5/2013
	Quarterly	10/2009 - 11/2013

Notes:

- *Annual sampling includes parameters listed in KAR Title 401 Chapter 48:300 Section 11(3)(a) and (b).*
- *Quarterly sampling includes parameters listed in KAR Title 401 Chapter 48:300 Section 11(3)(f).*

TABLE 3
INTRA-WELL PREDICTION LIMIT EXCEEDANCES
SECOND QUARTER 2014 MONITORING EVENT
GREEN VALLEY LANDFILL

Well	Parameter	Results (mg/L)	Prediction Limit (mg/L)
MW-28C	Iron, Total	160	72
	Copper, Total	0.022	0.005
	Zinc, Total	0.099	0.082

APPENDICES

APPENDIX A

POTENTIOMETRIC SURFACE MAP

LEGEND

- MW-1 — GROUNDWATER MONITORING WELL
- 614.11 — GROUNDWATER ELEVATION (fmsl)
- 660 — INFERRED POTENTIOMETRIC SURFACE CONTOUR (fmsl)
- FOOTPRINT
- PROPERTY BOUNDARY
- PERMIT BOUNDARY
- RESERVED EASEMENT
- 250' BUFFER

Water levels collected by Kenvirons, Inc. on April 21, 2014.

Groundwater elevation calculations available in Appendix B.

Base map courtesy of Kenvirons, Inc.

Aerial topography of landfill area dated December 12, 2012 provided by Cooper Aerial Surveys Co.

NORTH

0 225 450 900 1800

Scale in Feet
Graphic Scale: 1 inch = 900 feet

MW-1
614.11

MW-1B
612.76

MW-1A
617.20

620

640

660

RESERVED EASEMENT

MW-3
625.75

250' BUFFER ZONE

MW-28E
668.06

MW-28D
670.40

MW-28C
670.22

PHASE I

PHASE II & III

PERMIT BOUNDARY

GREEN VALLEY LANDFILL
GENERAL PARTNERSHIP
PROPERTY BOUNDARY

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Green Valley Landfill
Ashland, Kentucky

Second Quarter 2014 Event
Alluvial-Fracture Zone
Potentiometric Surface Map

Groundwater Elevation Summary Table
Green Valley Landfill

Well	Top of PVC Casing Elevation (fmsl)[1]	Depth to Water (ft)[2]	Groundwater Elevation (fmsl)
MW-1	617.80	3.69	614.11
MW-1A	618.60	1.40	617.20
MW-1B	618.70	5.94	612.76
MW-3	630.80	5.05	625.75
MW-28C	674.40	4.18	670.22
MW-28D	675.20	4.80	670.40
MW-28E	677.00	8.94	668.06

Note 1: Top of PVC Casing Elevations for MW-1, MW-1A, MW-1B, and MW-3 from the Groundwater Monitoring Plan compiled by Kenvirons, Inc. dated 4/23/04. Top of PVC Casing Elevations for MW-28C, MW-28D, and MW-28E from the Summary of Monitoring Well Abandonments and Installations by Stantec Consulting Services, Inc. dated 10/2/09.

Note 2: Depth to water collected by Kenvirons, Inc. on 4/21/14.

Groundwater Flow Velocity Calculations
Green Valley Landfill, Kentucky
Second Quarter 2014 Event

Velocity
$V = [(k)(i)]/(n)$
$V = [(1 \times 10^{-2} \text{ ft/year})(0.007 \text{ ft/ft})]/0.20$
$V =$ **3.5 ft/year**

Hydraulic conductivity (k_f) of the alluvium/fracture zone was noted in a Fuller, Mossbarger, Scott, & May (FMSM) Engineers, Inc. report entitled "Report of Geotechnical Exploration", dated August, 1992. The geotechnical exploration report indicates the alluvium to be predominantly silty and clayey sands type soils. As noted in the August 1992 FMSM "Report of Geotechnical Exploration", a hydraulic conductivity value of 1 x 10^2 feet/year, typical for silty and clayey sand soils was assumed for the alluvium.

Effective porosity (n): An effective porosity (n) of 0.20 was assumed for the alluvium.

Gradient (i) is from the average gradient at site using the Second Quarter 2014 potentiometric surface map from well MW-28C to well MW-1.
Gradient(i) = Change in Groundwater Elevation along Flow Path
i: From MW-28C (670.22 fmsl) to MW-1 (614.11 fmsl)/ Distance = 56.11 ft / 8,199 ft = 0.007

APPENDIX B
STATISTICAL EVALUATIONS

INTRA-WELL PREDICTION LIMITS
OLDER WELLS
QUARTERLY PARAMETERS

Prediction Limit

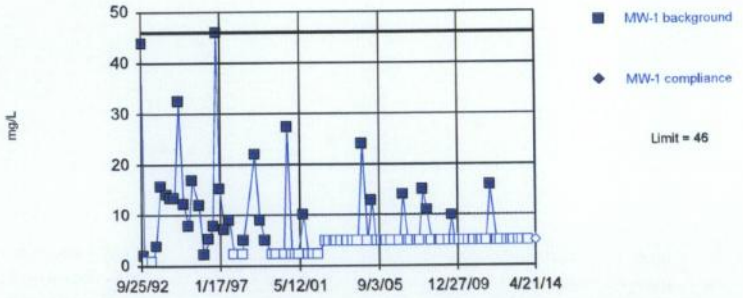
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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chemical Oxygen Demand [COD] (mg/L)	MW-1	46	n/a	4/21/2014	5ND	No	84	n/a	n/a	61.9	n/a	n/a	0.0002756	NP Intra (NDs) 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	MW-1A	47	n/a	4/21/2014	5ND	No	85	n/a	n/a	71.76	n/a	n/a	0.0002694	NP Intra (NDs) 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	MW-1B	41	n/a	4/21/2014	5ND	No	85	n/a	n/a	67.06	n/a	n/a	0.0002694	NP Intra (NDs) 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	MW-3	47	n/a	4/21/2014	5ND	No	82	n/a	n/a	69.51	n/a	n/a	0.000288	NP Intra (NDs) 1 of 2
Chloride (mg/L)	MW-1	10	n/a	4/21/2014	1.4	No	84	n/a	n/a	13.1	n/a	n/a	0.0002756	NP Intra (normality) 1 of 2
Chloride (mg/L)	MW-1A	3.9	n/a	4/21/2014	3.4	No	85	10.16	2.663	0	None	x^2	0.0007314	Param Intra 1 of 2
Chloride (mg/L)	MW-1B	52	n/a	4/21/2014	36	No	85	n/a	n/a	0	n/a	n/a	0.0002694	NP Intra (normality) 1 of 2
Chloride (mg/L)	MW-3	15	n/a	4/21/2014	2.9	No	82	n/a	n/a	15.85	n/a	n/a	0.000288	NP Intra (normality) 1 of 2
Iron Total (mg/L)	MW-1	23	n/a	4/21/2014	1.4	No	84	n/a	n/a	0	n/a	n/a	0.0002756	NP Intra (normality) 1 of 2
Iron Total (mg/L)	MW-1A	8.8	n/a	4/21/2014	1	No	85	0.7703	0.7023	0	None	ln(x)	0.0007314	Param Intra 1 of 2
Iron Total (mg/L)	MW-1B	11	n/a	4/21/2014	0.13	No	85	n/a	n/a	4.706	n/a	n/a	0.0002694	NP Intra (normality) 1 of 2
Iron Total (mg/L)	MW-3	58	n/a	4/21/2014	17	No	82	n/a	n/a	3.659	n/a	n/a	0.000288	NP Intra (normality) 1 of 2
pH [Field] (su)	MW-1	8.3	4.7	4/21/2014	5.8	No	84	6.5	0.8894	0	None	No	0.0003657	Param Intra 1 of 2
pH [Field] (su)	MW-1A	8	6.2	4/21/2014	6.97	No	84	1.92	0.03908	0	None	x^(1/3)	0.0003657	Param Intra 1 of 2
pH [Field] (su)	MW-1B	9.8	6.2	4/21/2014	7.44	No	85	n/a	n/a	0	n/a	n/a	0.0005389	NP Intra (normality) 1 of 2
pH [Field] (su)	MW-3	8	4.6	4/21/2014	6.2	No	81	1.806	0.138	0	None	ln(x)	0.0003657	Param Intra 1 of 2
Sodium Total (mg/L)	MW-1	4.4	n/a	4/21/2014	1.8	No	82	0.703	0.3848	0	None	ln(x)	0.0007314	Param Intra 1 of 2
Sodium Total (mg/L)	MW-1A	360	n/a	4/21/2014	22	No	85	n/a	n/a	0	n/a	n/a	0.0002694	NP Intra (normality) 1 of 2
Sodium Total (mg/L)	MW-1B	600	n/a	4/21/2014	160	No	85	n/a	n/a	0	n/a	n/a	0.0002694	NP Intra (normality) 1 of 2
Sodium Total (mg/L)	MW-3	340	n/a	4/21/2014	3.9	No	82	n/a	n/a	0	n/a	n/a	0.000288	NP Intra (normality) 1 of 2
Specific Conductance [Field] (umhos/cm)	MW-1	940	n/a	4/21/2014	67	No	84	n/a	n/a	0	n/a	n/a	0.0002756	NP Intra (normality) 1 of 2
Specific Conductance [Field] (umhos/cm)	MW-1A	440	n/a	4/21/2014	378	No	82	120248	36097	0	None	x^2	0.0007314	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	MW-1B	760	n/a	4/21/2014	721	No	83	318256	127304	0	None	x^2	0.0007314	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	MW-3	430	n/a	4/21/2014	117	No	82	5.006	0.5279	0	None	ln(x)	0.0007314	Param Intra 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-1	120	n/a	4/21/2014	77	No	83	6.981	1.883	3.614	None	sqrt(x)	0.0007314	Param Intra 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-1A	410	n/a	4/21/2014	220	No	85	n/a	n/a	0	n/a	n/a	0.0002694	NP Intra (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-1B	920	n/a	4/21/2014	360	No	85	n/a	n/a	0	n/a	n/a	0.0002694	NP Intra (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-3	320	n/a	4/21/2014	91	No	82	4.647	0.5563	0	None	ln(x)	0.0007314	Param Intra 1 of 2
Total Organic Carbon [TOC] (mg/L)	MW-1	10	n/a	4/21/2014	1	No	84	n/a	n/a	41.67	n/a	n/a	0.0002756	NP Intra (normality) 1 of 2
Total Organic Carbon [TOC] (mg/L)	MW-1A	26	n/a	4/21/2014	0.5ND	No	85	n/a	n/a	61.18	n/a	n/a	0.0002694	NP Intra (NDs) 1 of 2
Total Organic Carbon [TOC] (mg/L)	MW-1B	38	n/a	4/21/2014	0.5ND	No	85	n/a	n/a	58.82	n/a	n/a	0.0002694	NP Intra (NDs) 1 of 2
Total Organic Carbon [TOC] (mg/L)	MW-3	16	n/a	4/21/2014	1.2	No	82	n/a	n/a	21.95	n/a	n/a	0.000288	NP Intra (normality) 1 of 2
Total Organic Halides (mg/L)	MW-1	0.33	n/a	4/21/2014	0.005ND	No	84	n/a	n/a	78.57	n/a	n/a	0.0002756	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-1A	1.0	n/a	4/21/2014	0.005ND	No	85	n/a	n/a	74.12	n/a	n/a	0.0002694	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-1B	0.27	n/a	4/21/2014	0.005ND	No	85	n/a	n/a	60	n/a	n/a	0.0002694	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-3	0.37	n/a	4/21/2014	0.005ND	No	82	n/a	n/a	67.07	n/a	n/a	0.000288	NP Intra (NDs) 1 of 2

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



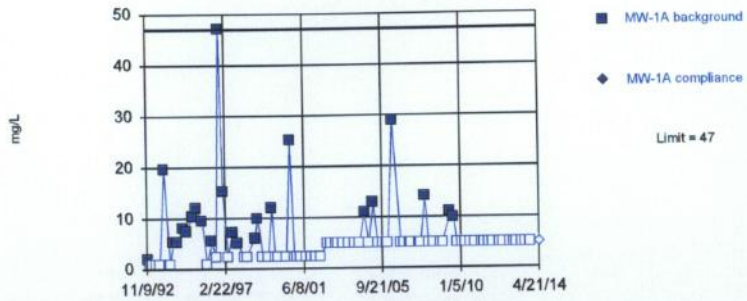
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 61.9% NDs. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 8:51 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



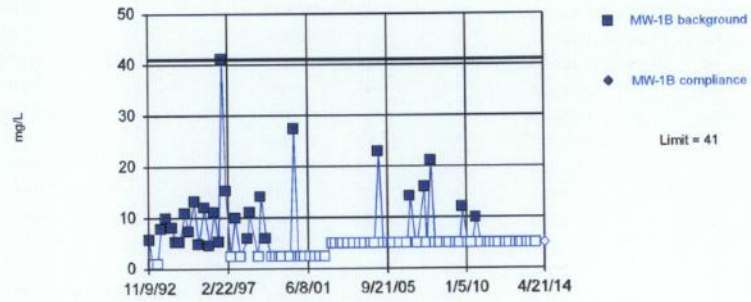
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 71.76% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 8:51 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



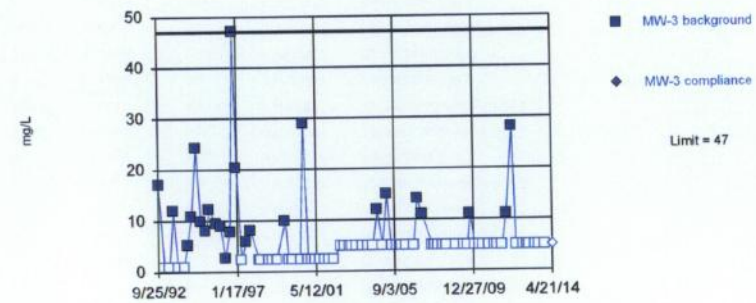
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 67.06% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric

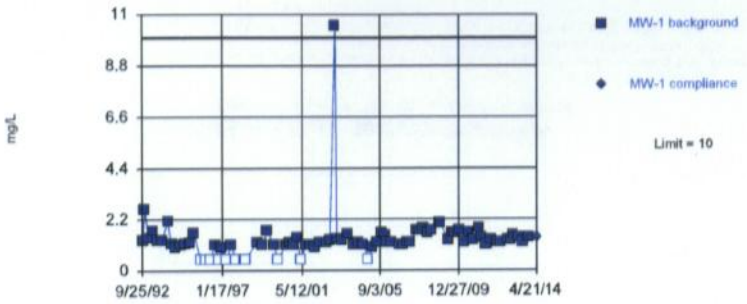


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 82 background values. 69.51% NDs. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

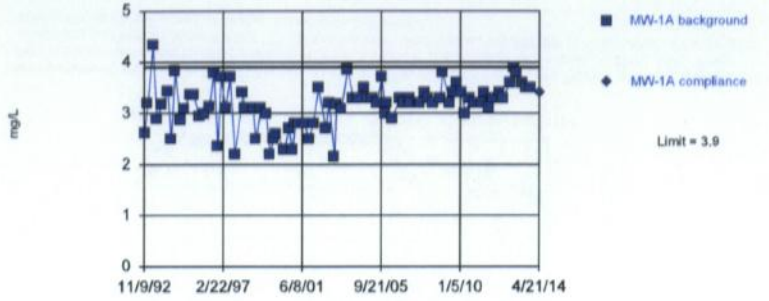


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 13.1% NDs. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chloride Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Within Limit

Prediction Limit
Intrawell Parametric

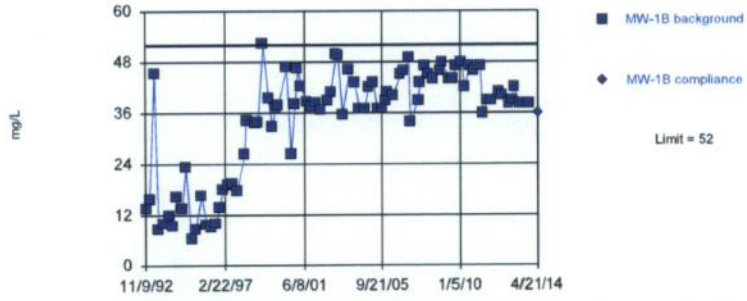


Background Data Summary (based on square transformation): Mean=10.16, Std. Dev.=2.663, n=85. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.971, critical = 0.961. Kappa = 2.001 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Chloride Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Within Limit

Prediction Limit
Intrawell Non-parametric

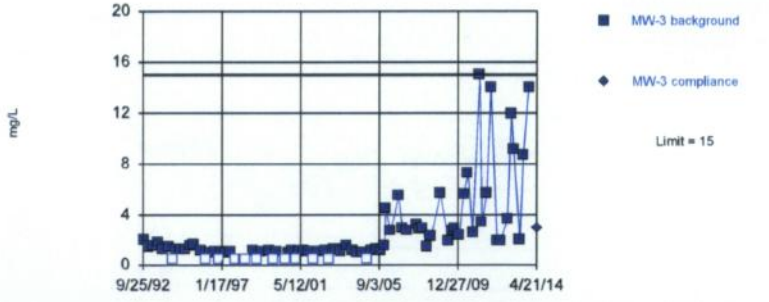


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chloride Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 15.85% NDs. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

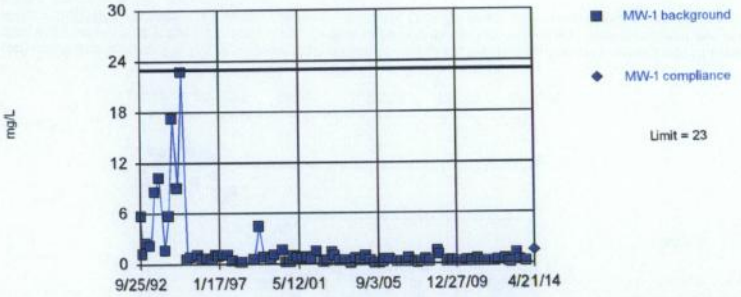
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Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Iron Total Analysis Run 5/23/2014 8:52 AM

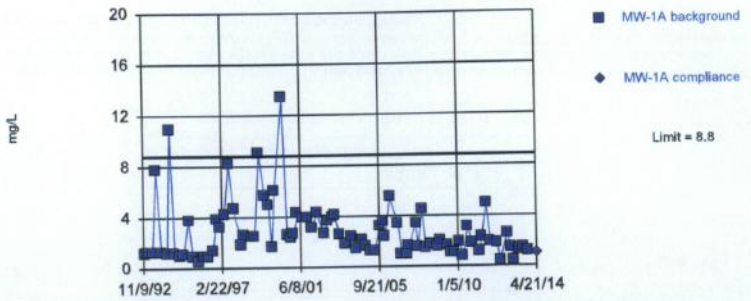
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Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.7703, Std. Dev.=0.7023, n=85. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.986, critical = 0.961. Kappa = 2.001 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Iron Total Analysis Run 5/23/2014 8:52 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

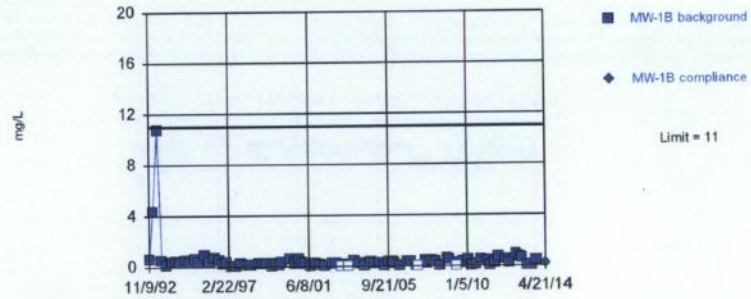
Sanitas™ v.9.4.35 n/a. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. 4.706% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Iron Total Analysis Run 5/23/2014 8:52 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

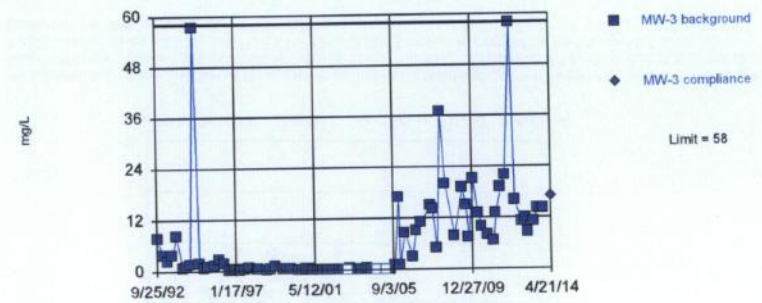
Sanitas™ v.9.4.35 n/a. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 3.659% NDs. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Iron Total Analysis Run 5/23/2014 8:52 AM

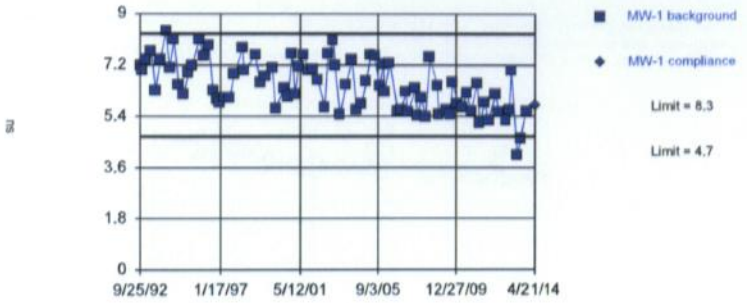
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.5, Std. Dev.=0.8894, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9812, critical = 0.96. Kappa = 2.002 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 5/23/2014 8:52 AM

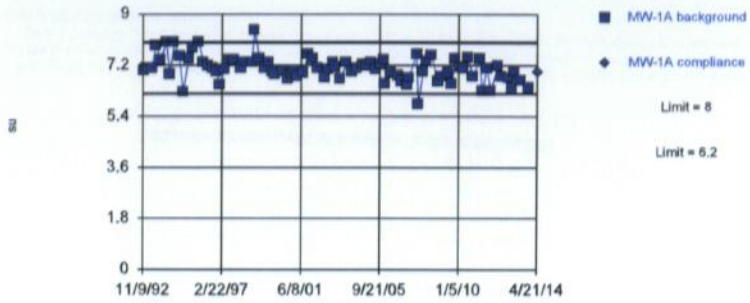
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=1.92, Std. Dev.=0.03908, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9748, critical = 0.96. Kappa = 2.002 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 5.53 (7/17/2013).

Constituent: pH [Field] Analysis Run 5/23/2014 8:52 AM

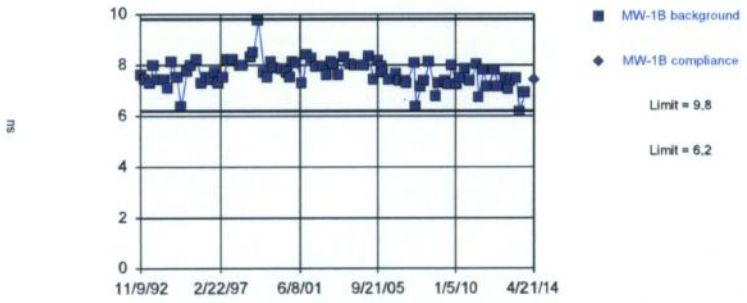
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 85 background values. Well-constituent pair annual alpha = 0.002155. Individual comparison alpha = 0.0005389 (1 of 2). Distribution was found to be non-normal after removal of suspect values, so outliers could not be indentified.

Constituent: pH [Field] Analysis Run 5/23/2014 8:52 AM

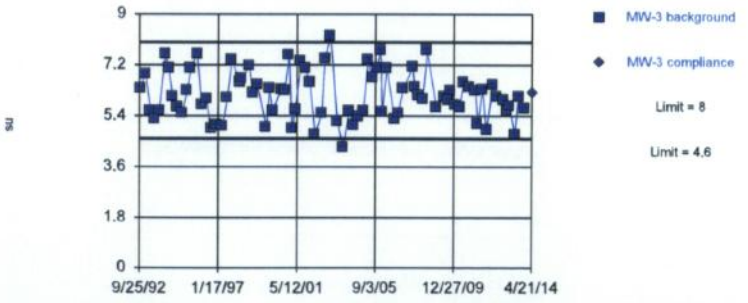
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=1.806, Std. Dev.=0.138, n=81. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9896, critical = 0.958. Kappa = 2.005 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 5/23/2014 8:52 AM

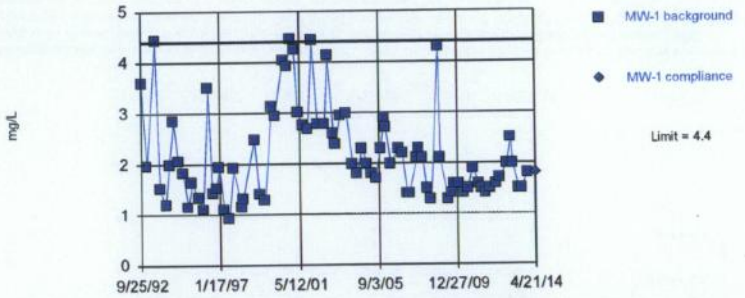
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.703, Std. Dev.=0.3848, n=82. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9718, critical = 0.959. Kappa = 2.004 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 26.4 (11/9/1992); 131 (4/26/1993).

Constituent: Sodium Total Analysis Run 5/23/2014 8:52 AM

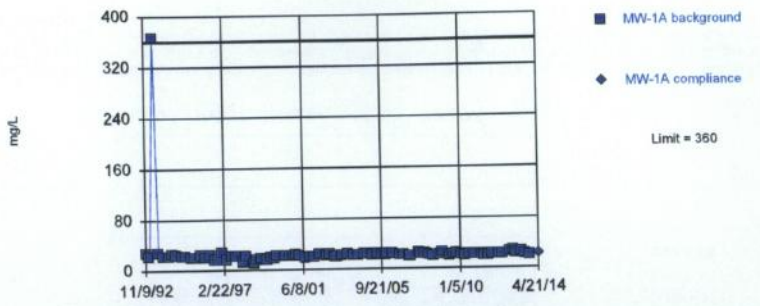
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). Distribution was found to be non-normal after removal of suspect values, so outliers could not be indentified.

Constituent: Sodium Total Analysis Run 5/23/2014 8:52 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Sodium Total Analysis Run 5/23/2014 8:52 AM

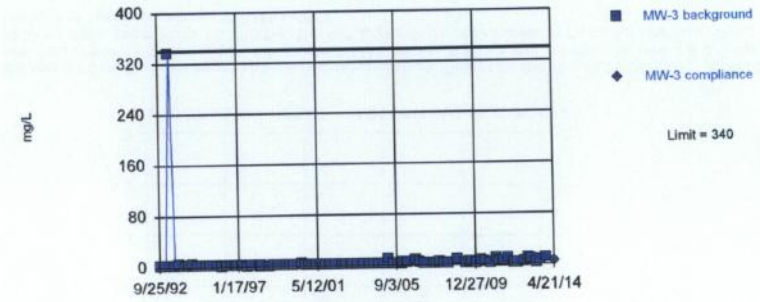
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Sodium Total Analysis Run 5/23/2014 8:52 AM

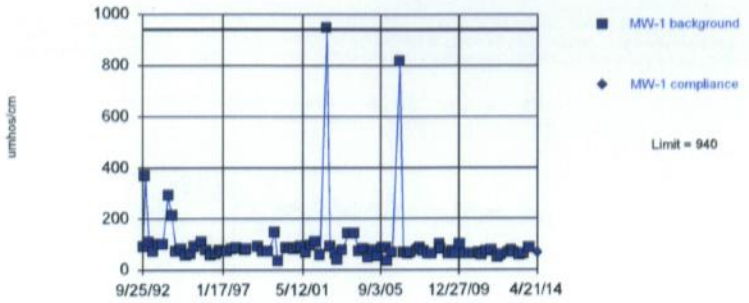
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 8:52 AM

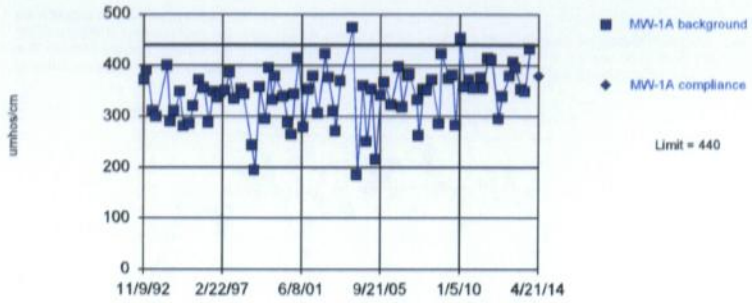
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=120248, Std. Dev.=36097, n=82. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9855, critical = 0.959. Kappa = 2.004 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. Three background outliers were removed: 100 (10/19/1993); 640 (11/25/2003); 140 (1/9/2006).

Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 8:52 AM

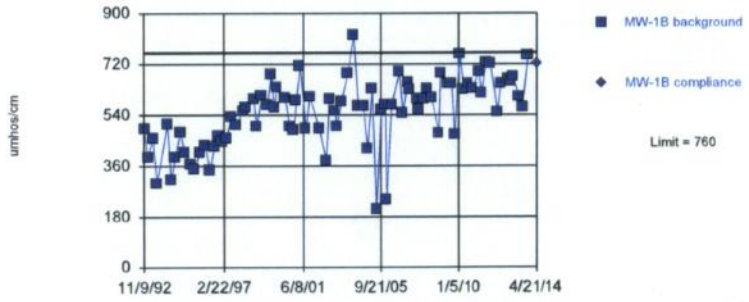
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=318256, Std. Dev.=127304, n=83. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9926, critical = 0.96. Kappa = 2.003 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 100 (10/19/1993); 1038 (1/14/2002).

Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 8:52 AM

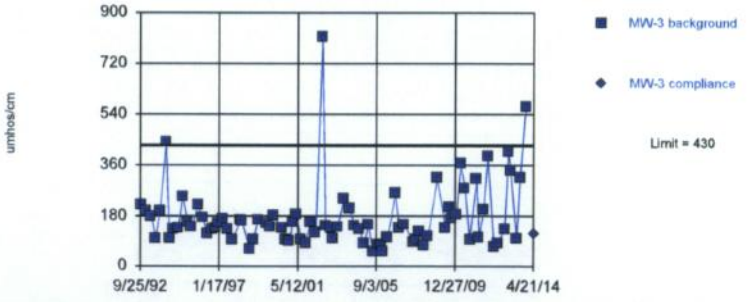
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=5.006, Std. Dev.=0.5279, n=82. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9676, critical = 0.959. Kappa = 2.004 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 8:52 AM

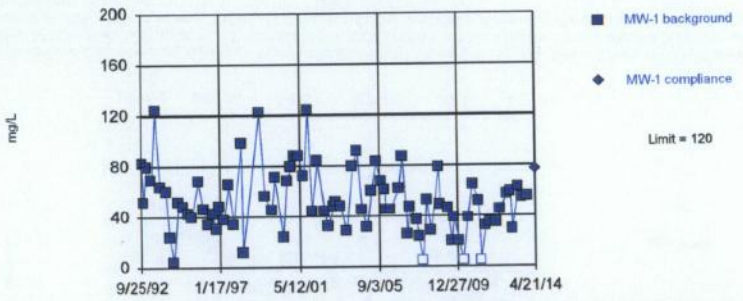
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=6.981, Std. Dev.=1.883, n=83, 3.614% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9688, critical = 0.96. Kappa = 2.003 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 308 (12/1/1998).

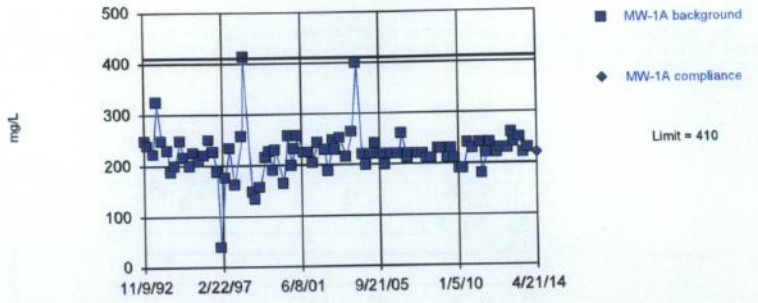
Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). Distribution was found to be non-normal after removal of suspect values, so outliers could not be indentified.

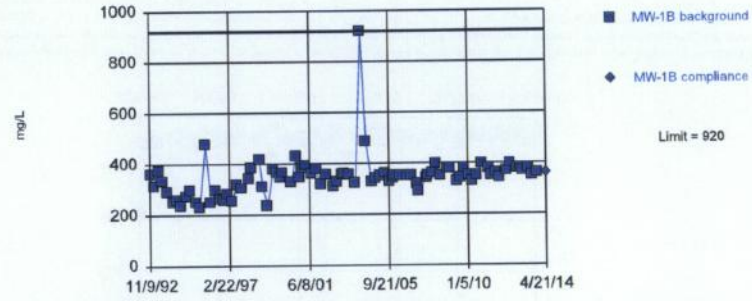
Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

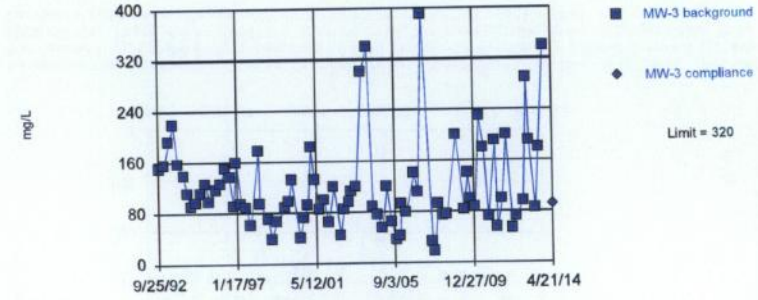
Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



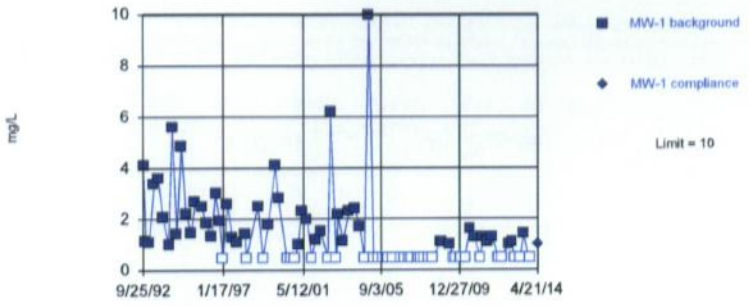
Background Data Summary (based on natural log transformation): Mean=4.647, Std. Dev.=0.5563, n=82. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9784, critical = 0.959. Kappa = 2.004 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



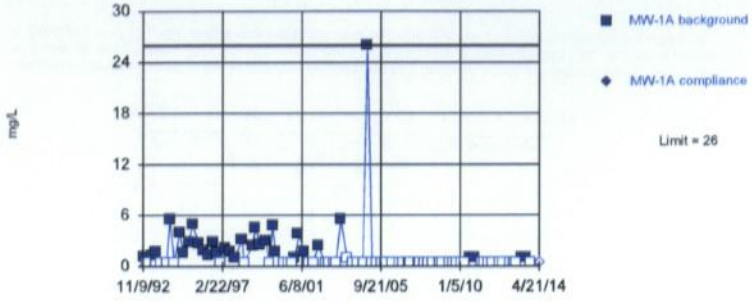
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. 41.67% NDs. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



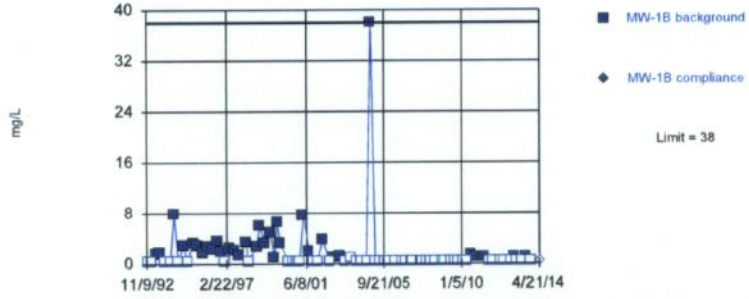
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 61.18% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



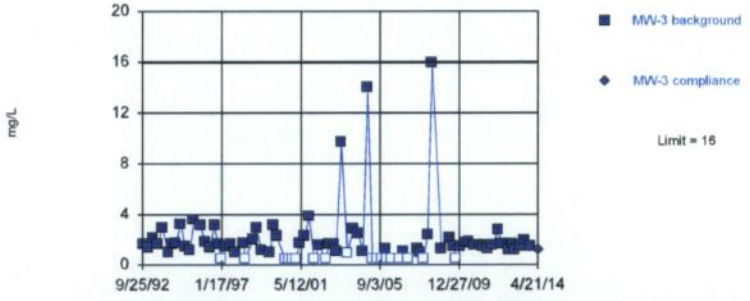
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 58.82% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 8:52 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



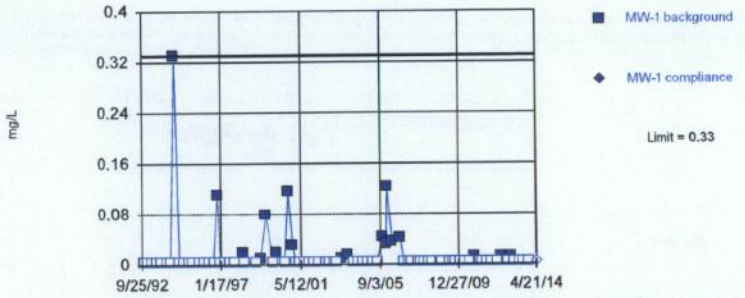
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 21.95% NDs. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 8:53 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



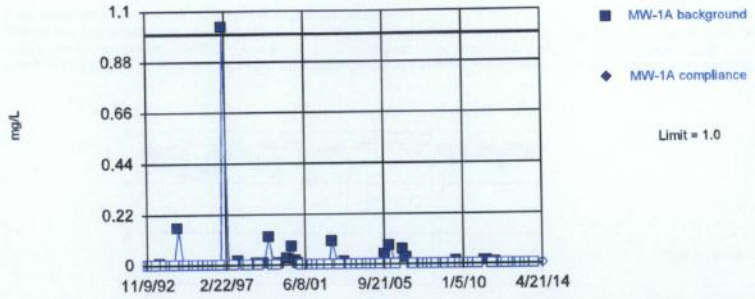
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 78.57% NDs. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Halides Analysis Run 5/23/2014 8:53 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



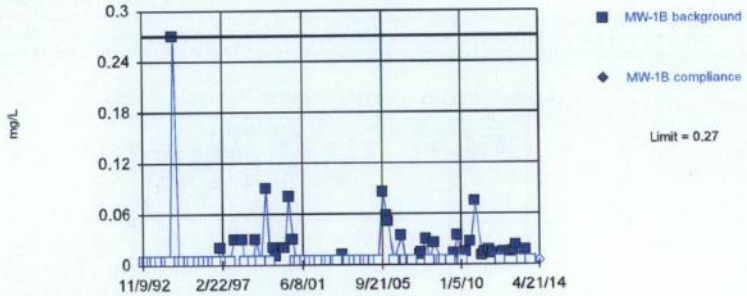
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 74.12% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Halides Analysis Run 5/23/2014 8:53 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



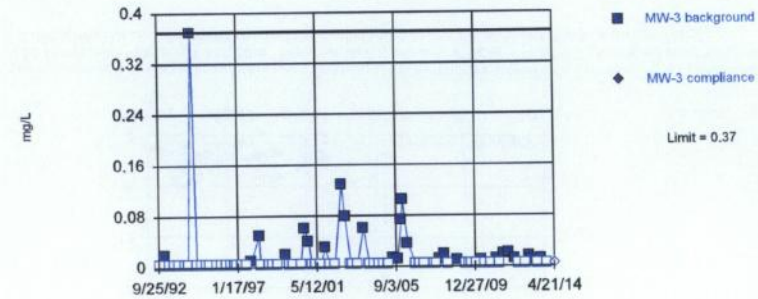
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 60% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Halides Analysis Run 5/23/2014 8:53 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 82 background values. 67.07% NDs. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Halides Analysis Run 5/23/2014 8:53 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

INTRA-WELL PREDICTION LIMITS
NEWER WELLS
QUARTERLY PARAMETERS

Prediction Limit

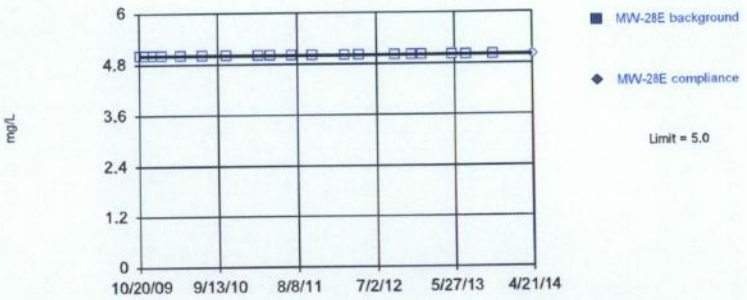
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY Printed 5/23/2014, 8:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chemical Oxygen Demand [COD] (mg/L)	MW-28E	5.0	n/a	4/21/2014	5ND	No	19	n/a	n/a	100	n/a	n/a	0.004738	NP Intra (NDs) 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	MW-28D	12	n/a	4/21/2014	5ND	No	19	n/a	n/a	89.47	n/a	n/a	0.004738	NP Intra (NDs) 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	MW-28C	27	n/a	4/21/2014	5ND	No	19	n/a	n/a	73.68	n/a	n/a	0.004738	NP Intra (NDs) 1 of 2
Chloride (mg/L)	MW-28E	2.4	n/a	4/21/2014	1.9	No	19	8.769	2.198	0	None	x^3	0.0009751	Param Intra 1 of 2
Chloride (mg/L)	MW-28D	23	n/a	4/21/2014	19	No	19	n/a	n/a	0	n/a	n/a	0.004738	NP Intra (normality) 1 of 2
Chloride (mg/L)	MW-28C	39	n/a	4/21/2014	12	No	19	2.507	0.4018	0	None	x^(1/3)	0.0009751	Param Intra 1 of 2
Iron Total (mg/L)	MW-28E	1.7	n/a	4/21/2014	0.17	No	19	-1.962	1.111	5.263	None	ln(x)	0.0009751	Param Intra 1 of 2
Iron Total (mg/L)	MW-28D	160	n/a	4/21/2014	1.3	No	19	0.9493	1.847	0	None	ln(x)	0.0009751	Param Intra 1 of 2
Iron Total (mg/L)	**MW-28C**	**72**	**n/a**	**4/21/2014**	**160**	**Yes**	**19**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.004738**	**NP Intra (normality) 1 of 2**
pH [Field] (su)	MW-28E	7	6	4/21/2014	6.18	No	16	1.866	0.03519	0	None	ln(x)	0.0004875	Param Intra 1 of 2
pH [Field] (su)	MW-28D	6.7	4.4	4/21/2014	5.02	No	19	195.1	48.09	0	None	x^3	0.0004875	Param Intra 1 of 2
pH [Field] (su)	MW-28C	6.5	3.9	4/21/2014	4.92	No	19	167.2	48.45	0	None	x^3	0.0004875	Param Intra 1 of 2
Sodium Total (mg/L)	MW-28E	21	n/a	4/21/2014	14	No	19	247.1	96.1	0	None	x^2	0.0009751	Param Intra 1 of 2
Sodium Total (mg/L)	MW-28D	38	n/a	4/21/2014	33	No	19	722.6	316.8	0	None	x^2	0.0009751	Param Intra 1 of 2
Sodium Total (mg/L)	MW-28C	28	n/a	4/21/2014	14	No	19	16.86	4.952	0	None	No	0.0009751	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	MW-28E	410	n/a	4/21/2014	319	No	18	5.799	0.09481	0	None	ln(x)	0.0009751	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	MW-28D	790	n/a	4/21/2014	653	No	19	334002	126564	0	None	x^2	0.0009751	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	MW-28C	810	n/a	4/21/2014	494	No	19	536.5	124.3	0	None	No	0.0009751	Param Intra 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-28E	240	n/a	4/21/2014	180	No	18	6646389	2842487	0	None	x^3	0.0009751	Param Intra 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-28D	460	n/a	4/21/2014	420	No	19	3.7e15	2.4e15	0	None	x^6	0.0009751	Param Intra 1 of 2
Total Dissolved Solids [TDS] (mg/L)	MW-28C	520	n/a	4/21/2014	300	No	19	360.5	71.53	0	None	No	0.0009751	Param Intra 1 of 2
Total Organic Carbon [TOC] (mg/L)	MW-28E	1.6	n/a	4/21/2014	0.5ND	No	19	1.11	0.228	21.05	Kaplan-Meier	No	0.0009751	Param Intra 1 of 2
Total Organic Carbon [TOC] (mg/L)	MW-28D	2.1	n/a	4/21/2014	1.2	No	19	0.4476	0.1376	0	None	ln(x)	0.0009751	Param Intra 1 of 2
Total Organic Carbon [TOC] (mg/L)	MW-28C	2.8	n/a	4/21/2014	2.6	No	17	0.6108	0.1771	0	None	ln(x)	0.0009751	Param Intra 1 of 2
Total Organic Halides (mg/L)	MW-28E	0.034	n/a	4/21/2014	0.005ND	No	19	n/a	n/a	73.68	n/a	n/a	0.004738	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-28D	0.034	n/a	4/21/2014	0.005ND	No	19	n/a	n/a	36.84	n/a	n/a	0.004738	NP Intra (normality) 1 of 2
Total Organic Halides (mg/L)	MW-28C	0.055	n/a	4/21/2014	0.045	No	19	0.2636	0.05244	10.53	None	x^(1/3)	0.0009751	Param Intra 1 of 2

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



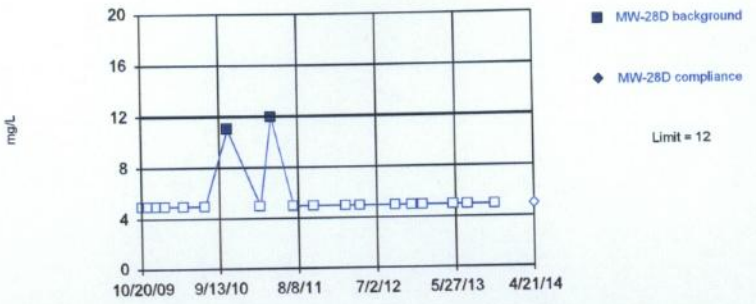
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 100% NDs. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 8:55 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



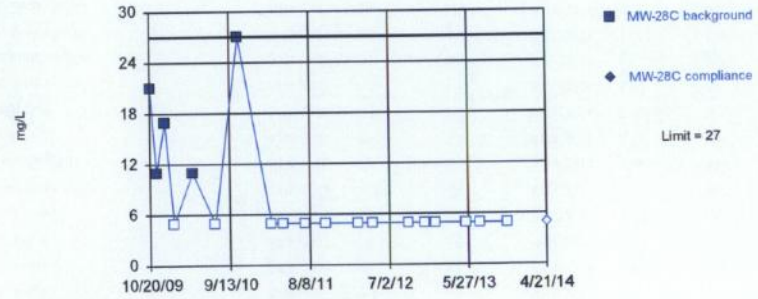
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 8:55 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



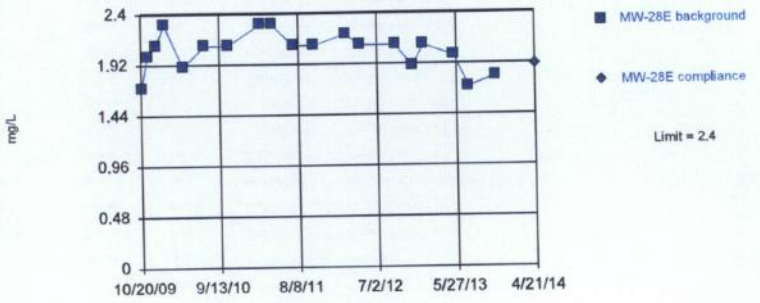
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 73.68% NDs. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 8:55 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=8.769, Std. Dev.=2.198, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9124, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. After outlier removal distribution was non-normal, so outlier results were invalidated.

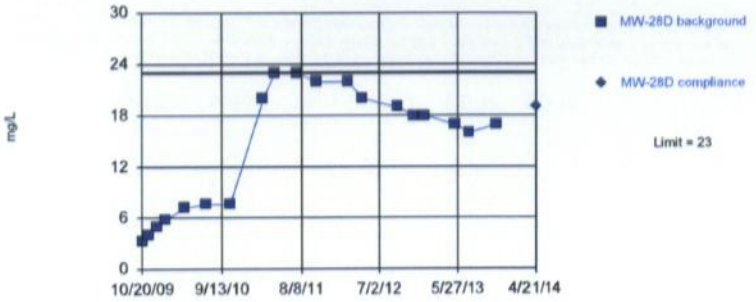
Constituent: Chloride Analysis Run 5/23/2014 8:55 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chloride Analysis Run 5/23/2014 8:55 AM

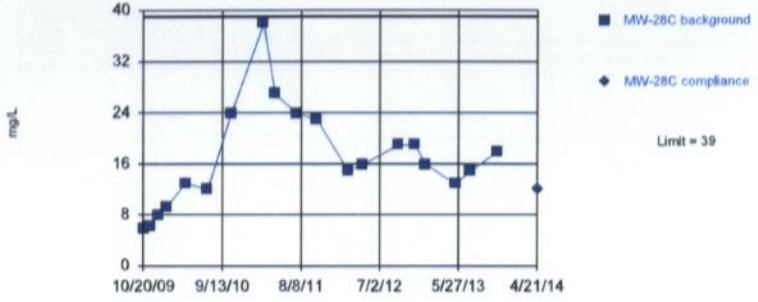
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=2.507, Std. Dev.=0.4018, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.979, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Chloride Analysis Run 5/23/2014 8:55 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

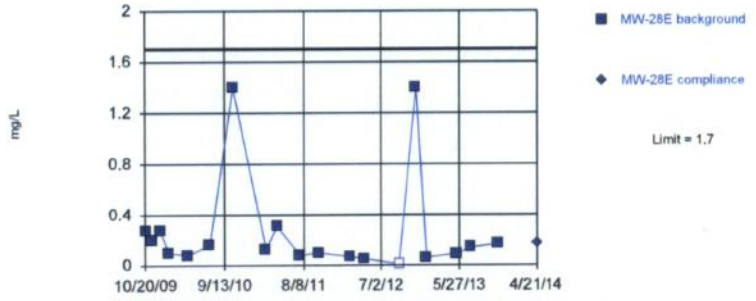
Sanitas™ v.9.4.35 n/a. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.962, Std. Dev.=1.111, n=19, 5.263% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9173, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Iron Total Analysis Run 5/23/2014 8:55 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.9493, Std. Dev.=1.847, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.914, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Iron Total Analysis Run 5/23/2014 8:55 AM

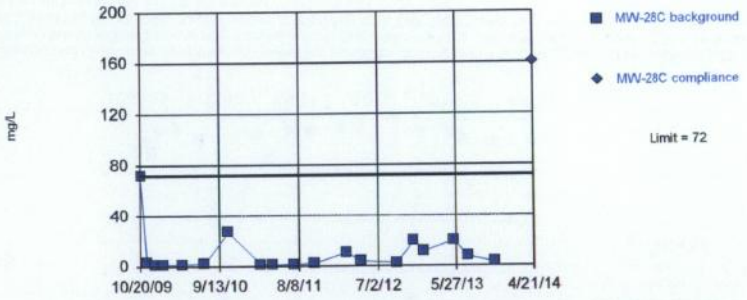
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Iron Total Analysis Run 5/23/2014 8:55 AM

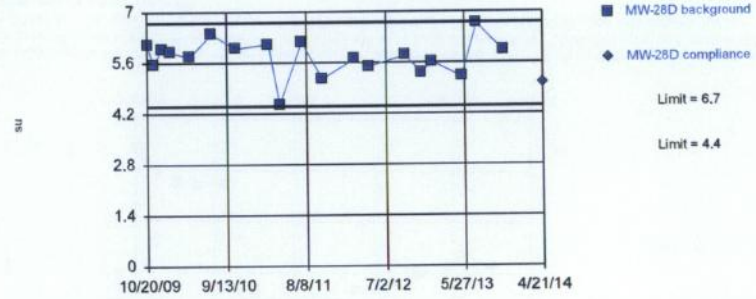
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=195.1, Std. Dev.=48.09, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.989, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 5/23/2014 8:55 AM

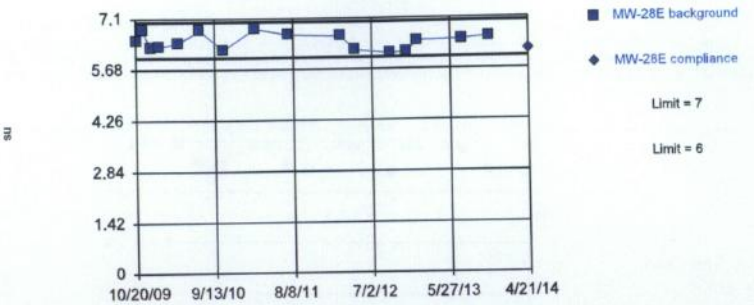
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=1.866, Std. Dev.=0.03519, n=16. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9494, critical = 0.887. Kappa = 2.31 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. Three background outliers were removed: 4.76 (4/19/2011); 5.29 (10/11/2011); 5.44 (5/15/2013).

Constituent: pH [Field] Analysis Run 5/23/2014 8:55 AM

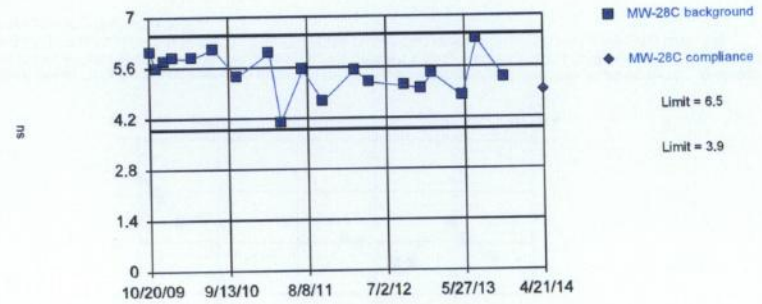
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=167.2, Std. Dev.=48.45, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9925, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 5/23/2014 8:55 AM

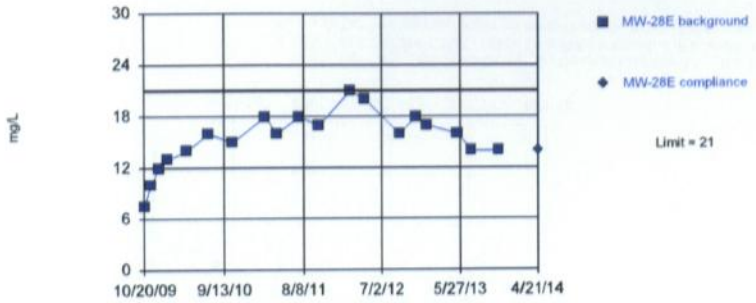
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=247.1, Std. Dev.=96.1, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9822, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Sodium Total Analysis Run 5/23/2014 8:56 AM

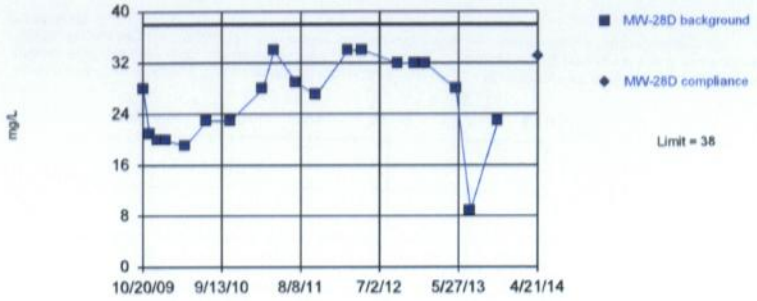
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=722.6, Std. Dev.=316.8, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9382, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Sodium Total Analysis Run 5/23/2014 8:56 AM

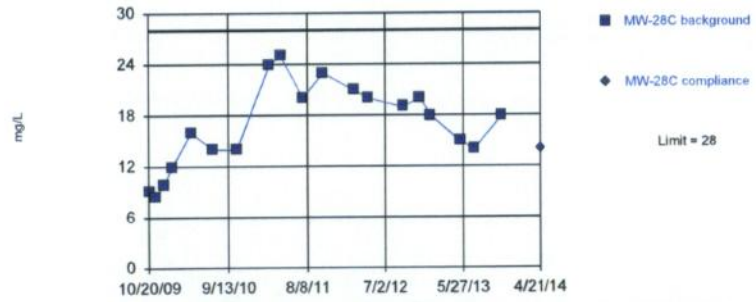
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.86, Std. Dev.=4.952, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9629, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Sodium Total Analysis Run 5/23/2014 8:56 AM

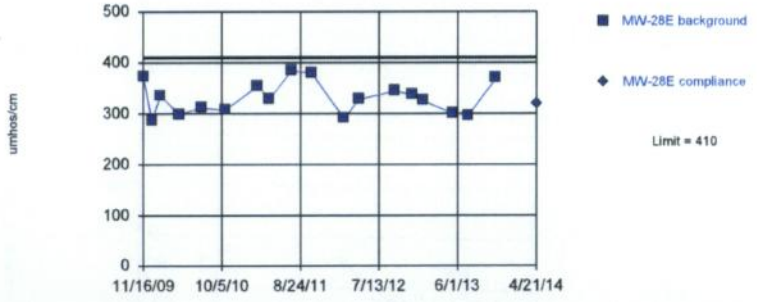
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=5.799, Std. Dev.=0.09481, n=18. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9463, critical = 0.897. Kappa = 2.258 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. One background outlier was removed: 210 (10/20/2009).

Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 8:56 AM

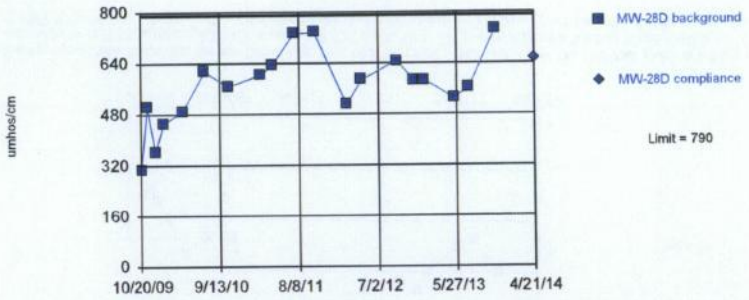
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=334002, Std. Dev.=126564, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9603, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 8:56 AM

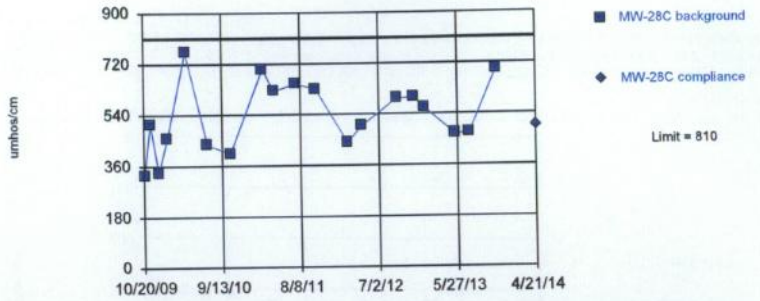
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=536.5, Std. Dev.=124.3, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9702, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 8:56 AM

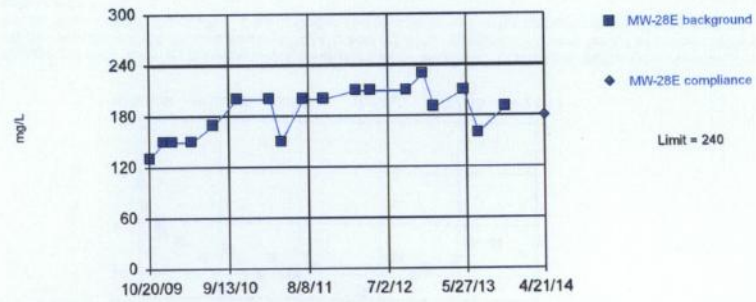
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=6646389, Std. Dev.=2842487, n=18. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.916, critical = 0.897. Kappa = 2.258 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. One background outlier was removed: 910 (11/16/2009).

Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 8:56 AM

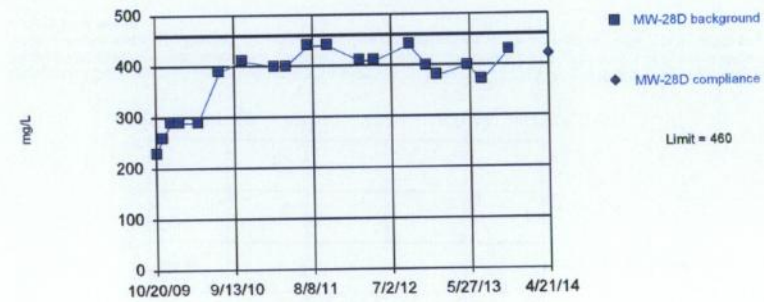
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^6 transformation): Mean=3.7e15, Std. Dev.=2.4e15, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9093, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 8:56 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=360.5, Std. Dev.=71.53, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9537, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 8:56 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

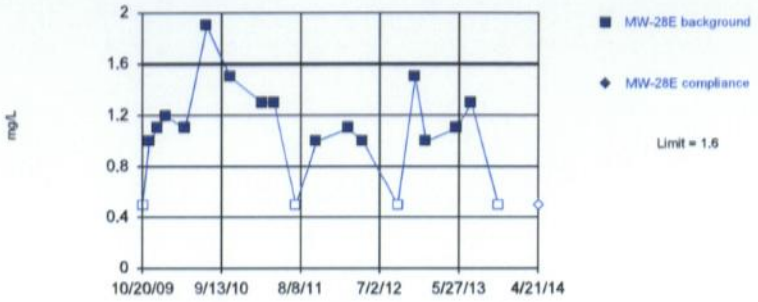
Sanitas™ v.9.4.35 n/a. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=1.11, Std. Dev.=0.228, n=19, 21.05% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9147, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 8:56 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.4476, Std. Dev.=0.1376, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9607, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 8:56 AM

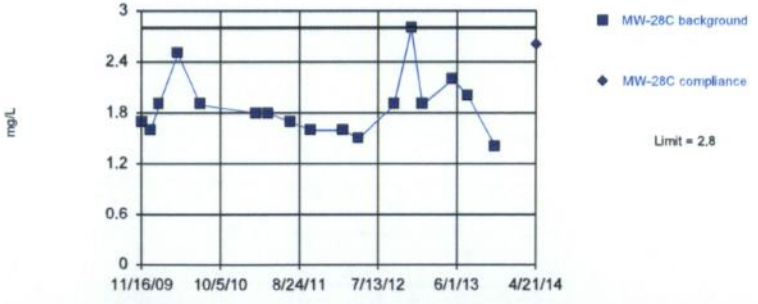
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.6108, Std. Dev.=0.1771, n=17. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9361, critical = 0.892. Kappa = 2.284 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Dixon's Outlier Test was performed on the background data. Two background outliers were removed: 5.9 (10/20/2009); 7.5 (10/19/2010).

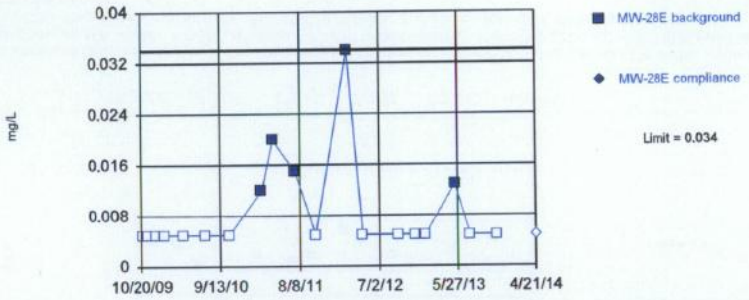
Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 8:56 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



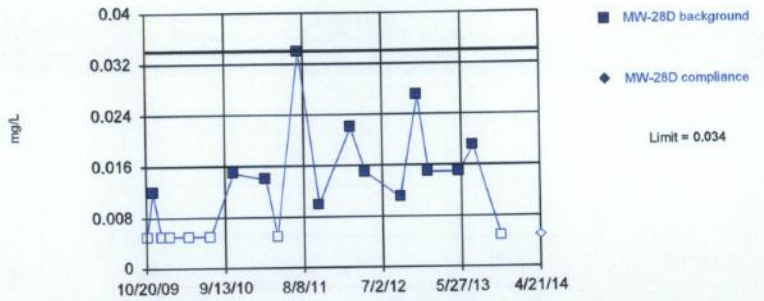
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 73.68% NDs. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Halides Analysis Run 5/23/2014 8:56 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



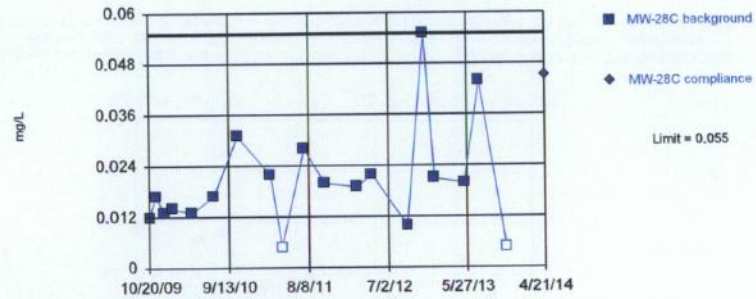
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. 36.84% NDs. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Halides Analysis Run 5/23/2014 8:56 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=0.2636, Std. Dev.=0.05244, n=19, 10.53% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9585, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Organic Halides Analysis Run 5/23/2014 8:56 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

INTRA-WELL PREDICTION LIMITS
OLDER WELLS
ANNUAL PARAMETERS

Prediction Limit

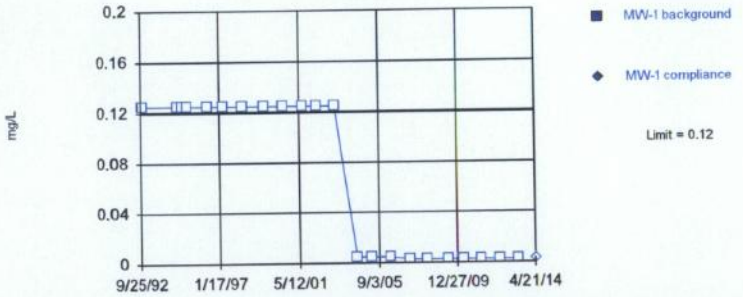
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY Printed 5/23/2014, 9:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony Total (mg/L)	MW-1	0.12	n/a	4/21/2014	0.003ND	No	23	n/a	n/a	100	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Antimony Total (mg/L)	MW-1A	0.12	n/a	4/21/2014	0.003ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Antimony Total (mg/L)	MW-1B	0.12	n/a	4/21/2014	0.003ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Antimony Total (mg/L)	MW-3	0.12	n/a	4/21/2014	0.003ND	No	20	n/a	n/a	100	n/a	n/a	0.004329	NP Intra (NDs) 1 of 2
Beryllium Total (mg/L)	MW-1	0.010	n/a	4/21/2014	0.005ND	No	23	n/a	n/a	95.65	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Beryllium Total (mg/L)	MW-1A	0.010	n/a	4/21/2014	0.005ND	No	22	n/a	n/a	95.45	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Beryllium Total (mg/L)	MW-1B	0.010	n/a	4/21/2014	0.005ND	No	22	n/a	n/a	95.45	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Beryllium Total (mg/L)	MW-3	0.010	n/a	4/21/2014	0.005ND	No	20	n/a	n/a	95	n/a	n/a	0.004329	NP Intra (NDs) 1 of 2
Cobalt Total (mg/L)	MW-1	0.010	n/a	4/21/2014	0.01ND	No	23	n/a	n/a	100	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Cobalt Total (mg/L)	MW-1A	0.010	n/a	4/21/2014	0.01ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Cobalt Total (mg/L)	MW-1B	0.010	n/a	4/21/2014	0.01ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Cobalt Total (mg/L)	MW-3	0.010	n/a	4/21/2014	0.01ND	No	20	n/a	n/a	100	n/a	n/a	0.004329	NP Intra (NDs) 1 of 2
Copper Total (mg/L)	MW-1	0.020	n/a	4/21/2014	0.005ND	No	23	n/a	n/a	91.3	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Copper Total (mg/L)	MW-1A	0.0050	n/a	4/21/2014	0.005ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Copper Total (mg/L)	MW-1B	0.0050	n/a	4/21/2014	0.005ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Copper Total (mg/L)	MW-3	0.010	n/a	4/21/2014	0.005ND	No	20	n/a	n/a	95	n/a	n/a	0.004329	NP Intra (NDs) 1 of 2
Nickel Total (mg/L)	MW-1	0.040	n/a	4/21/2014	0.01ND	No	23	n/a	n/a	82.61	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Nickel Total (mg/L)	MW-1A	0.010	n/a	4/21/2014	0.01ND	No	22	n/a	n/a	95.45	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Nickel Total (mg/L)	MW-1B	0.010	n/a	4/21/2014	0.01ND	No	22	n/a	n/a	95.45	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Nickel Total (mg/L)	MW-3	0.066	n/a	4/21/2014	0.01ND	No	20	0.2508	0.08452	30	Kaplan-Meier	x^(1/3)	0.003287	Param Intra 1 of 2
Thallium Total (mg/L)	MW-1	0.12	n/a	4/21/2014	0.001ND	No	23	n/a	n/a	100	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Thallium Total (mg/L)	MW-1A	0.12	n/a	4/21/2014	0.001ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Thallium Total (mg/L)	MW-1B	0.12	n/a	4/21/2014	0.001ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Thallium Total (mg/L)	MW-3	0.12	n/a	4/21/2014	0.001ND	No	20	n/a	n/a	100	n/a	n/a	0.004329	NP Intra (NDs) 1 of 2
Vanadium Total (mg/L)	MW-1	0.12	n/a	4/21/2014	0.125ND	No	23	n/a	n/a	100	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Vanadium Total (mg/L)	MW-1A	0.12	n/a	4/21/2014	0.125ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Vanadium Total (mg/L)	MW-1B	0.12	n/a	4/21/2014	0.125ND	No	22	n/a	n/a	100	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Vanadium Total (mg/L)	MW-3	0.12	n/a	4/21/2014	0.125ND	No	20	n/a	n/a	100	n/a	n/a	0.004329	NP Intra (NDs) 1 of 2
Zinc Total (mg/L)	MW-1	0.11	n/a	4/21/2014	0.005ND	No	23	n/a	n/a	56.52	n/a	n/a	0.003441	NP Intra (NDs) 1 of 2
Zinc Total (mg/L)	MW-1A	0.020	n/a	4/21/2014	0.005ND	No	22	n/a	n/a	81.82	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Zinc Total (mg/L)	MW-1B	0.10	n/a	4/21/2014	0.005ND	No	22	n/a	n/a	77.27	n/a	n/a	0.003737	NP Intra (NDs) 1 of 2
Zinc Total (mg/L)	MW-3	0.11	n/a	4/21/2014	0.019	No	20	0.3184	0.08624	10	None	x^(1/3)	0.003287	Param Intra 1 of 2

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



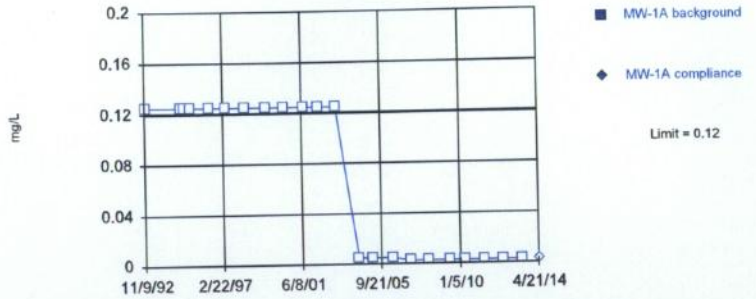
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 100% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



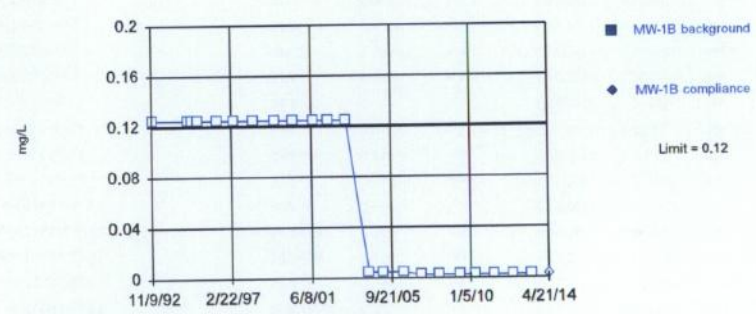
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



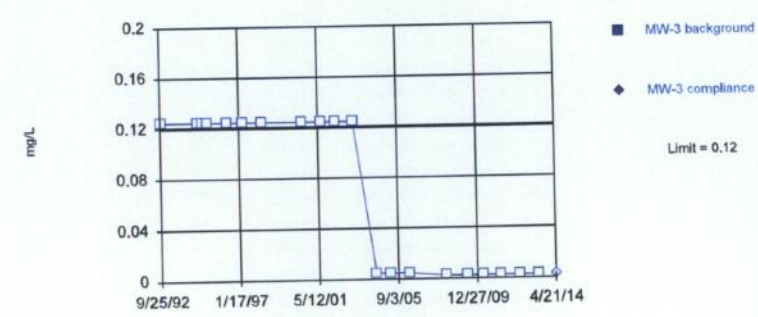
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



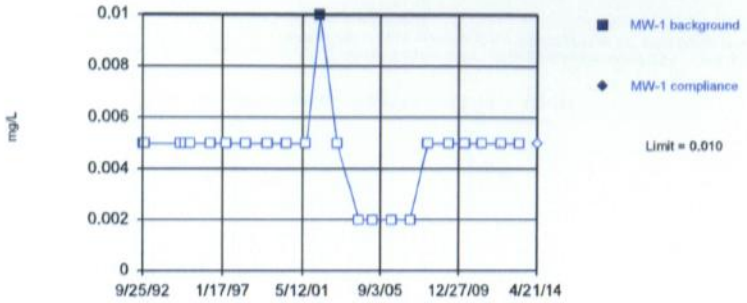
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 100% NDs. Well-constituent pair annual alpha = 0.004329 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



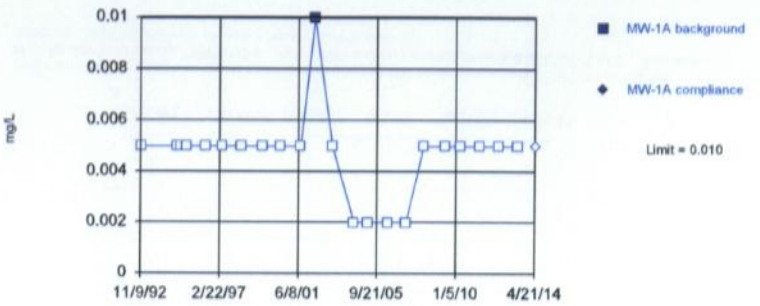
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 95.45% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



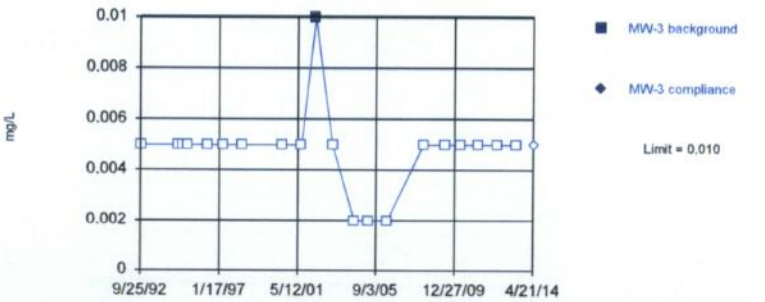
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 95.45% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



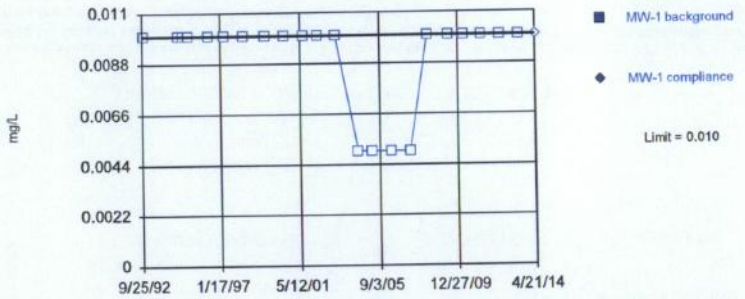
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 95% NDs. Well-constituent pair annual alpha = 0.004329 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



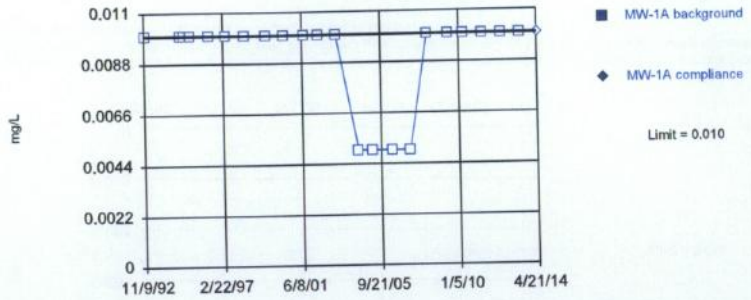
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 100% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



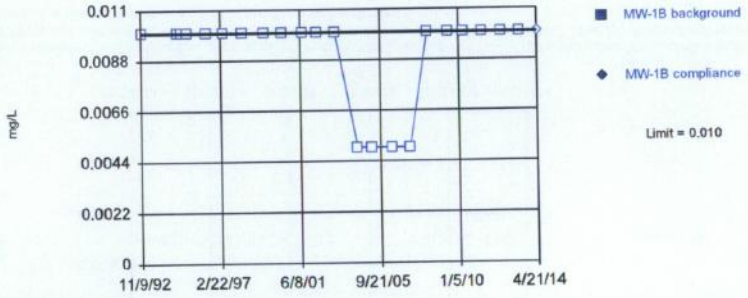
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



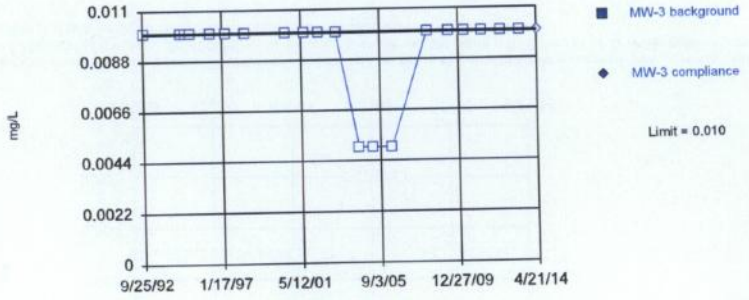
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



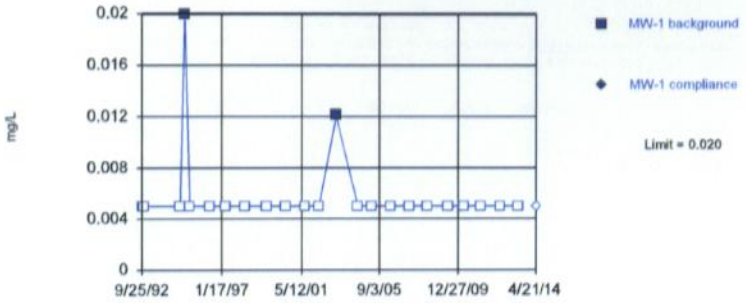
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 100% NDs. Well-constituent pair annual alpha = 0.004329 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



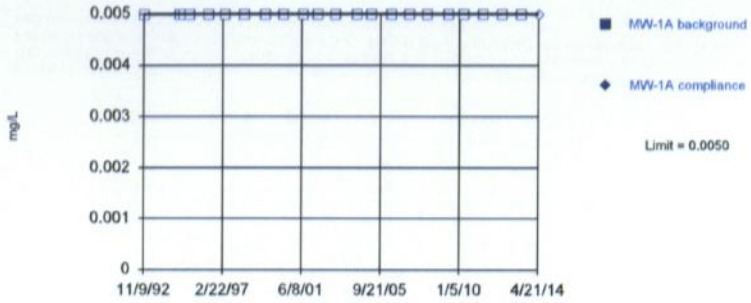
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



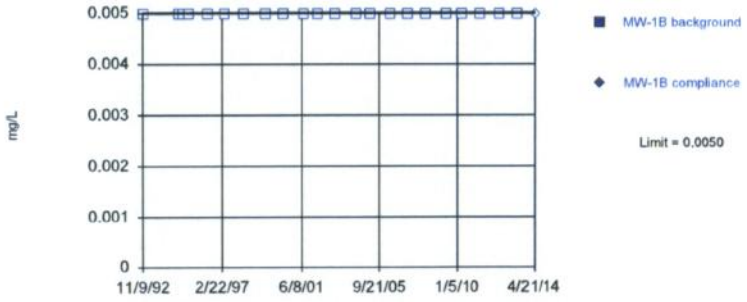
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



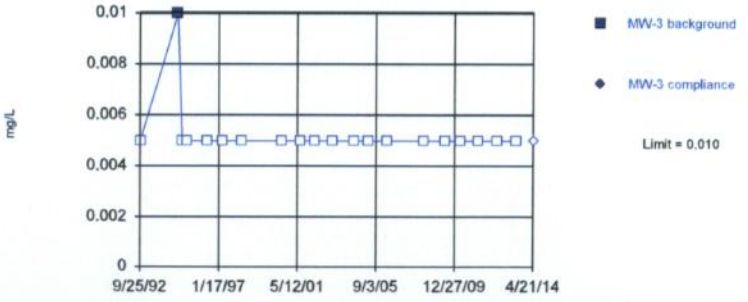
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



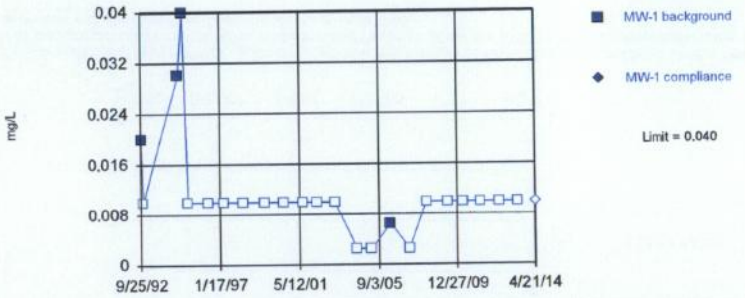
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 95% NDs. Well-constituent pair annual alpha = 0.004329 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



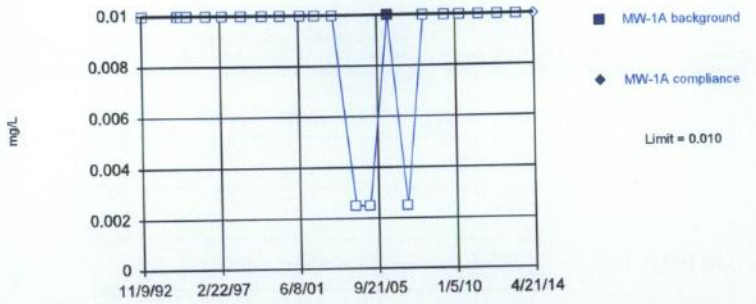
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 82.61% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



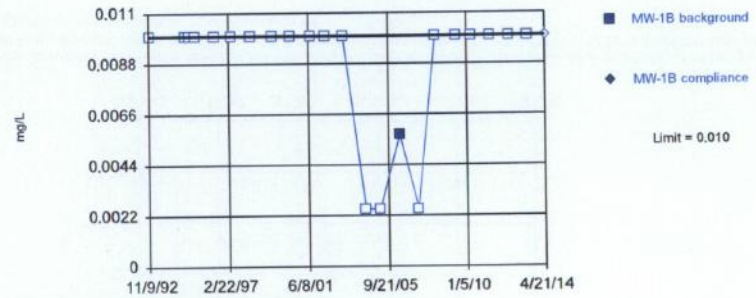
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 95.45% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



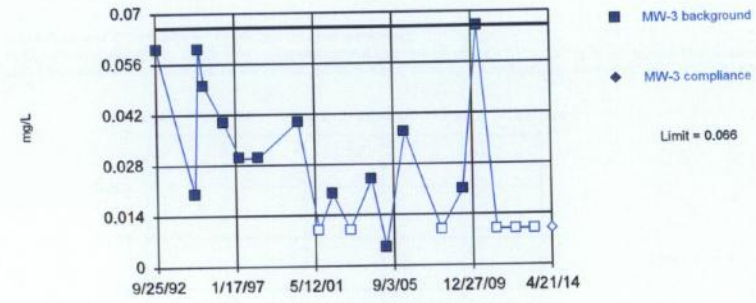
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 95.45% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



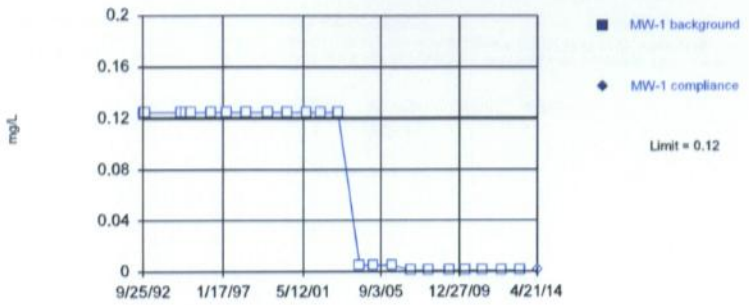
Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.2508, Std. Dev.=0.08452, n=20, 30% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9263, critical = 0.868. Kappa = 1.808 (c=8, w=4, 1 of 2, event alpha = 0.1). Report alpha = 0.003287. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Nickel Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



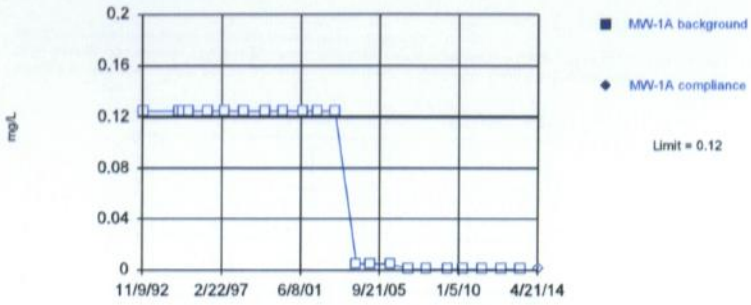
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 100% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 5/23/2014 9:03 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



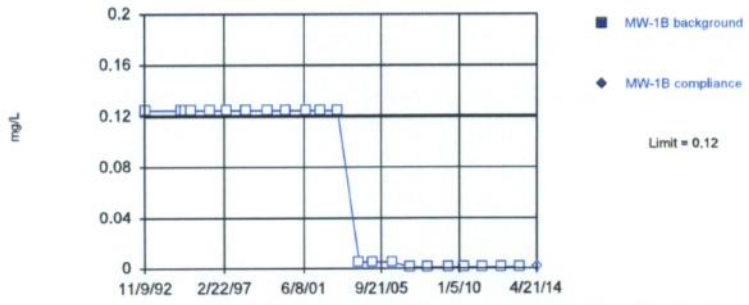
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



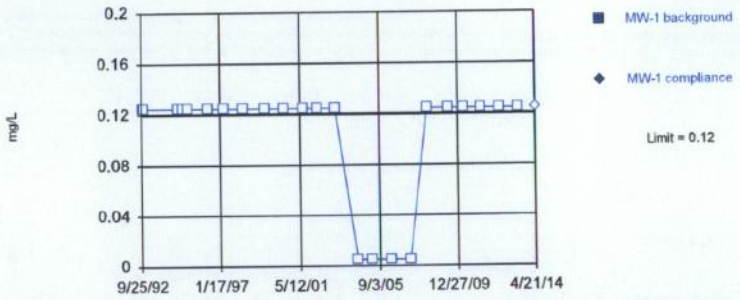
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 100% NDs. Well-constituent pair annual alpha = 0.004329 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



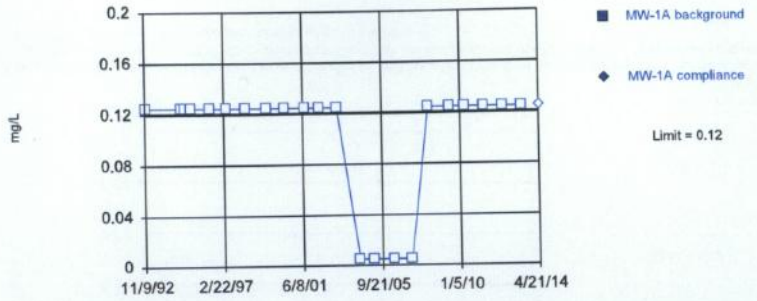
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 100% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



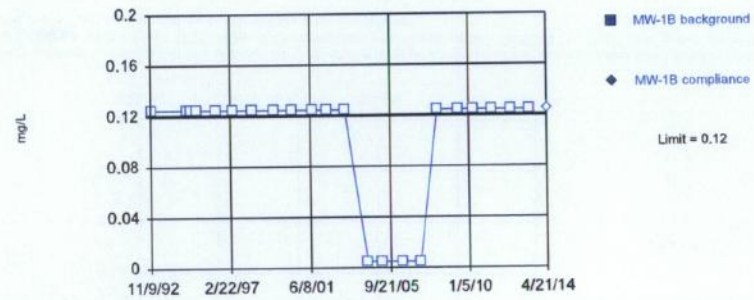
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



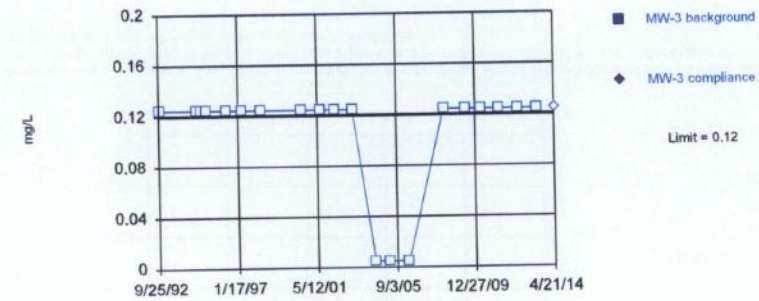
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 100% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric

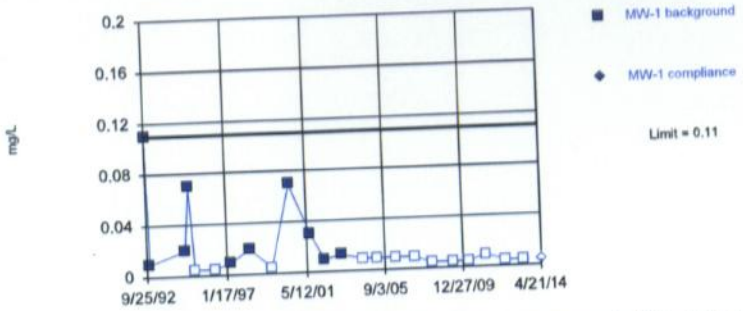


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 20 background values. 100% NDs. Well-constituent pair annual alpha = 0.004329 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

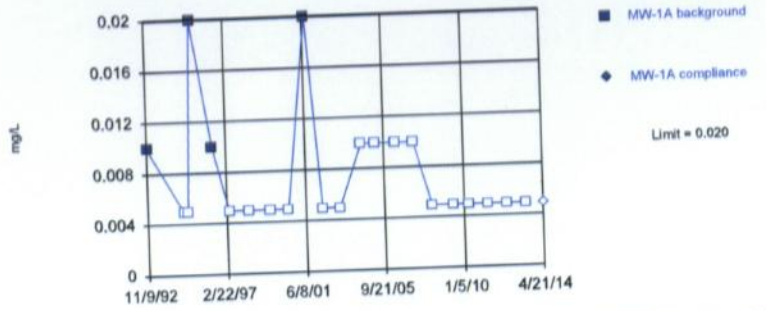


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 56.52% NDs. Well-constituent pair annual alpha = 0.003441 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Zinc Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

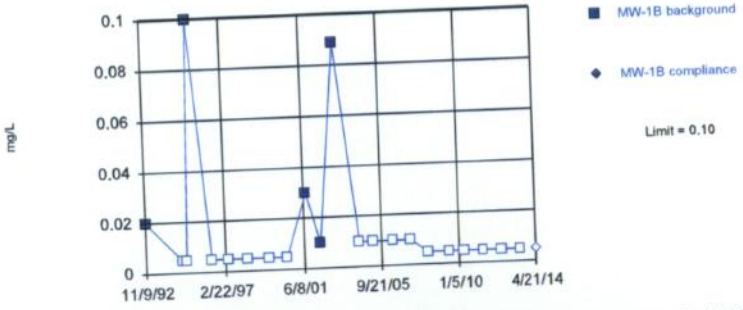


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Zinc Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

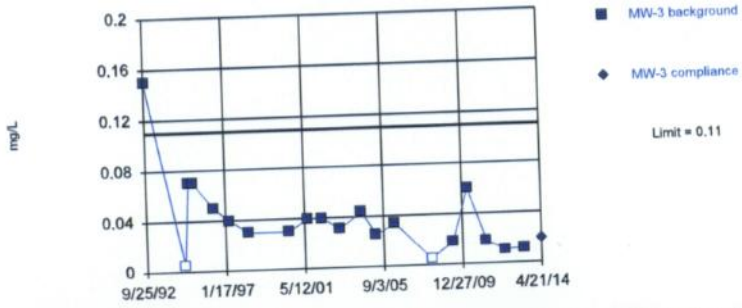


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 77.27% NDs. Well-constituent pair annual alpha = 0.003737 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Zinc Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=0.3184, Std. Dev.=0.08624, n=20, 10% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9633, critical = 0.868. Kappa = 1.808 (c=8, w=4, 1 of 2, event alpha = 0.1). Report alpha = 0.003287. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Zinc Total Analysis Run 5/23/2014 9:04 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

INTRA-WELL PREDICTION LIMITS
NEWER WELLS
ANNUAL PARAMETERS

Prediction Limit

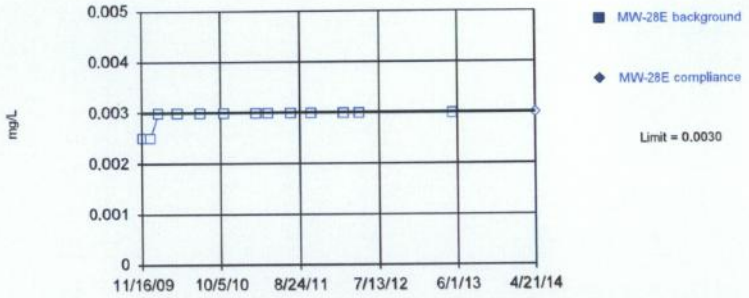
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY Printed 5/23/2014, 9:02 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony Total (mg/L)	MW-28E	0.0030	n/a	4/21/2014	0.003ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Antimony Total (mg/L)	MW-28D	0.0030	n/a	4/21/2014	0.003ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Antimony Total (mg/L)	MW-28C	0.0030	n/a	4/21/2014	0.003ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Beryllium Total (mg/L)	MW-28E	0.0050	n/a	4/21/2014	0.005ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Beryllium Total (mg/L)	MW-28D	0.0050	n/a	4/21/2014	0.005ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Beryllium Total (mg/L)	MW-28C	0.0050	n/a	4/21/2014	0.005ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Cobalt Total (mg/L)	MW-28E	0.010	n/a	4/21/2014	0.01ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Cobalt Total (mg/L)	MW-28D	0.047	n/a	4/21/2014	0.01ND	No	13	0.001078	0.0006168	15.38	Kaplan-Meier	x^2	0.00438	Param Intra 1 of 2
Cobalt Total (mg/L)	MW-28C	0.010	n/a	4/21/2014	0.01ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Copper Total (mg/L)	MW-28E	0.0050	n/a	4/21/2014	0.005ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Copper Total (mg/L)	MW-28D	0.0050	n/a	4/21/2014	0.005ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Copper Total (mg/L)	**MW-28C**	**0.0050**	**n/a**	**4/21/2014**	**0.022**	**Yes**	**13**	**n/a**	**n/a**	**100**	**n/a**	**n/a**	**0.009876**	**NP Intra (NDs) 1 of 2**
Nickel Total (mg/L)	MW-28E	0.010	n/a	4/21/2014	0.01ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Nickel Total (mg/L)	MW-28D	0.034	n/a	4/21/2014	0.022	No	12	0.0008528	0.0001598	0	None	x^2	0.00438	Param Intra 1 of 2
Nickel Total (mg/L)	MW-28C	0.072	n/a	4/21/2014	0.062	No	13	n/a	n/a	23.08	n/a	n/a	0.009876	NP Intra (normality) 1 of 2
Thallium Total (mg/L)	MW-28E	0.0050	n/a	4/21/2014	0.001ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Thallium Total (mg/L)	MW-28D	0.0050	n/a	4/21/2014	0.001ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Thallium Total (mg/L)	MW-28C	0.0050	n/a	4/21/2014	0.001ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Vanadium Total (mg/L)	MW-28E	0.12	n/a	4/21/2014	0.125ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Vanadium Total (mg/L)	MW-28D	0.12	n/a	4/21/2014	0.125ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Vanadium Total (mg/L)	MW-28C	0.12	n/a	4/21/2014	0.125ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Zinc Total (mg/L)	MW-28E	0.010	n/a	4/21/2014	0.005ND	No	13	n/a	n/a	100	n/a	n/a	0.009876	NP Intra (NDs) 1 of 2
Zinc Total (mg/L)	MW-28D	0.041	n/a	4/21/2014	0.02	No	13	0.02738	0.00703	0	None	No	0.00438	Param Intra 1 of 2
Zinc Total (mg/L)	**MW-28C**	**0.082**	**n/a**	**4/21/2014**	**0.099**	**Yes**	**13**	**0.1756**	**0.05928**	**23.08**	**Kaplan-Meier**	**sqrt(x)**	**0.00438**	**Param Intra 1 of 2**

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



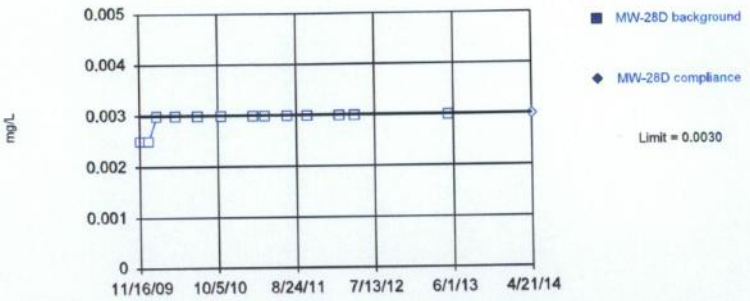
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



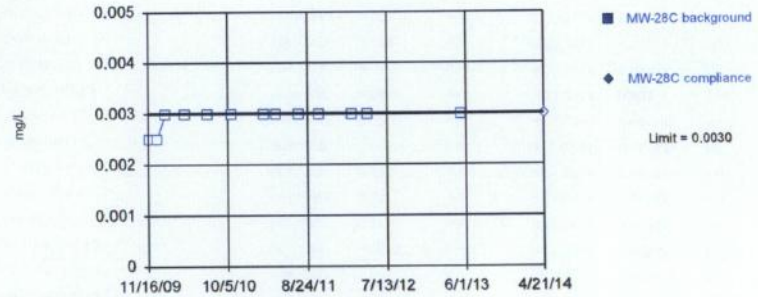
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



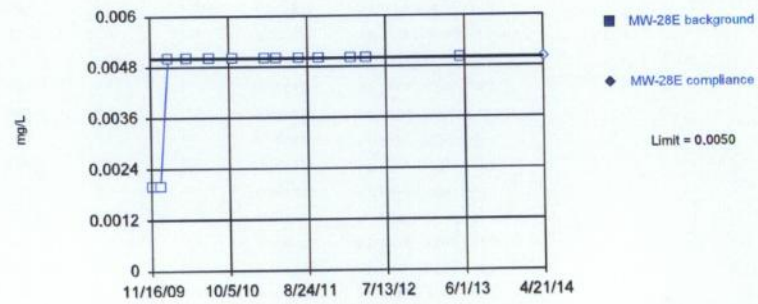
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



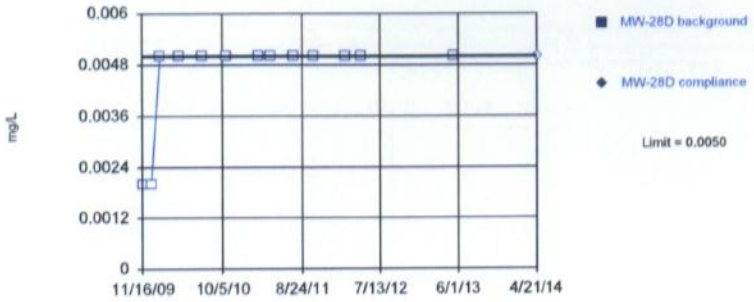
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



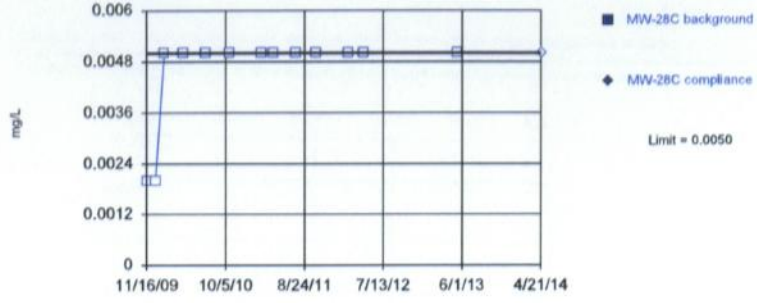
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



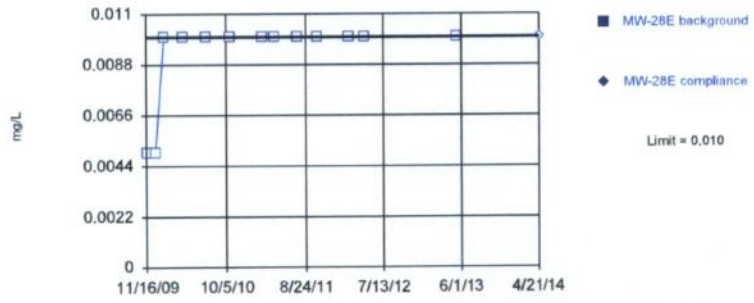
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



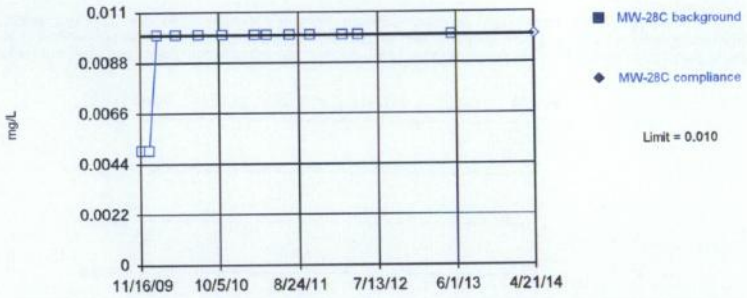
Background Data Summary (based on square transformation) (after Kaplan-Meier Adjustment): Mean=0.001078, Std. Dev.=0.0006168, n=13, 15.38% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9608, critical = 0.866. Kappa = 1.869 (c=8, w=3, 1 of 2, event alpha = 0.1). Report alpha = 0.00438. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Cobalt Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



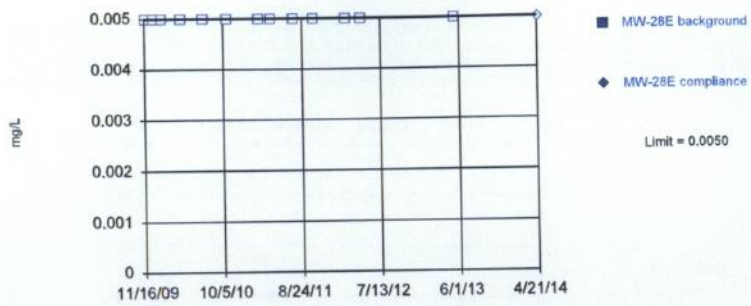
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



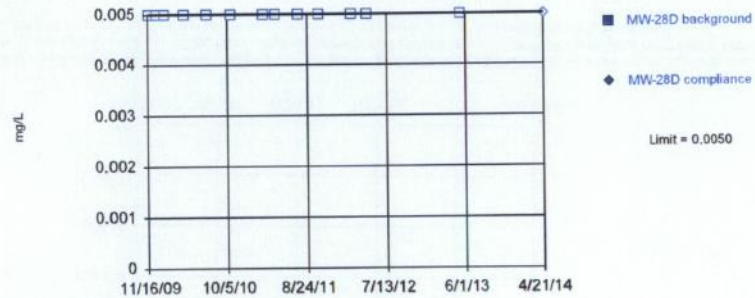
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



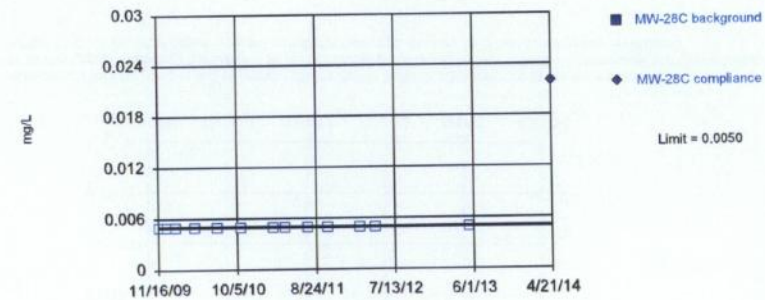
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric

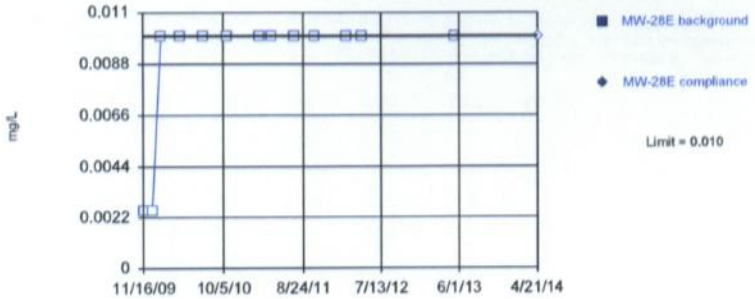


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square transformation): Mean=0.0008528, Std. Dev.=0.0001598, n=12. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9462, critical = 0.859. Kappa = 1.898 (c=8, w=3, 1 of 2, event alpha = 0.1). Report alpha = 0.00438. Dixon's Outlier Test was performed on the background data. One background outlier was removed: <0.02 (5/15/2013).

Constituent: Nickel Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 13 background values. 23.08% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

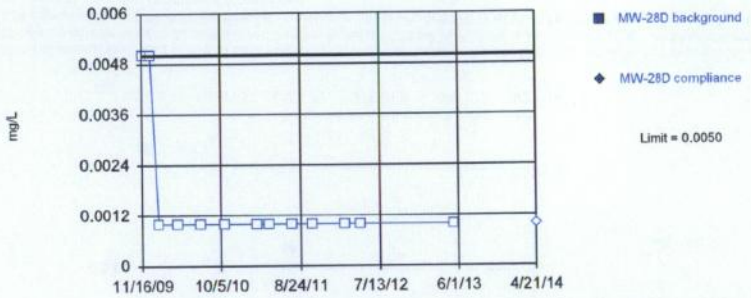


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

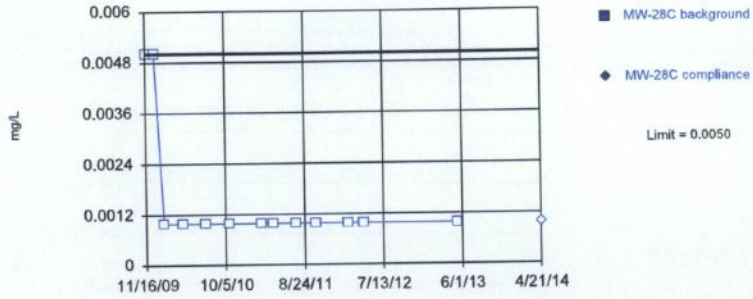


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

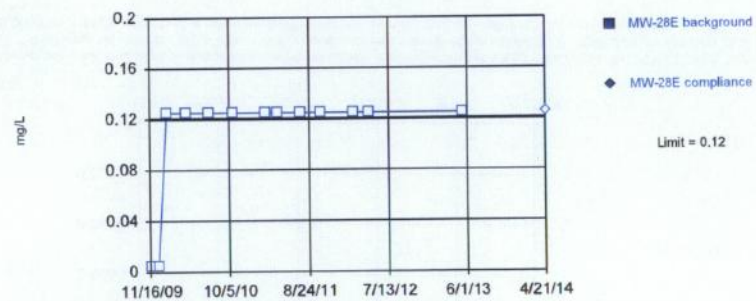


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

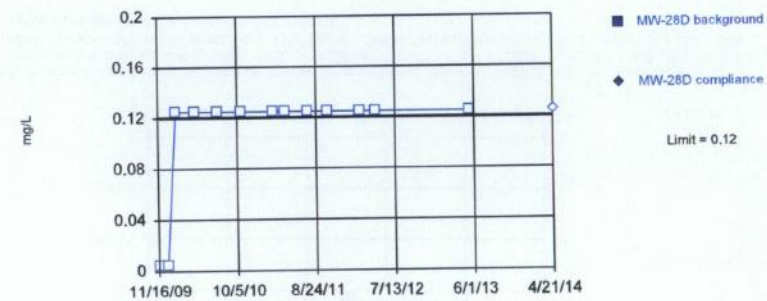


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

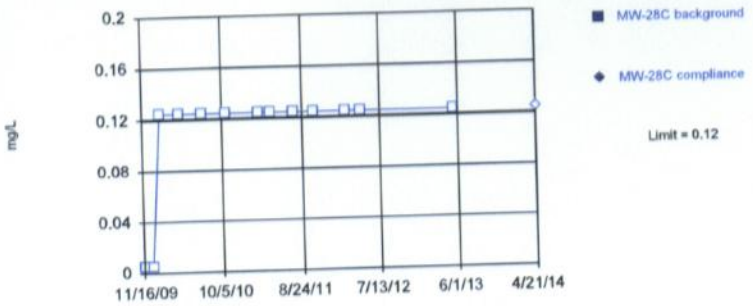


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

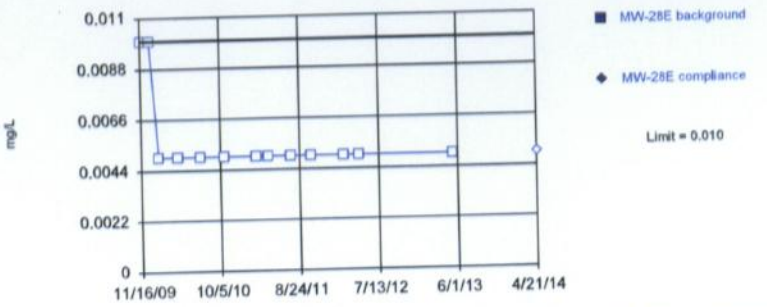


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

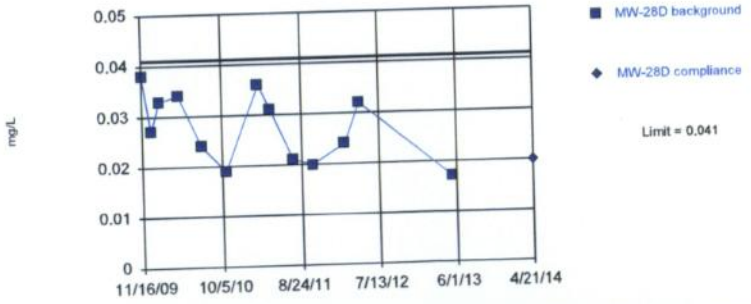


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 100% NDs. Well-constituent pair annual alpha = 0.009877. Individual comparison alpha = 0.009876 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Zinc Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.02738, Std. Dev.=0.00703, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9382, critical = 0.866. Kappa = 1.869 (c=8, w=3, 1 of 2, event alpha = 0.1). Report alpha = 0.00438. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Zinc Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit
Intrawell Parametric



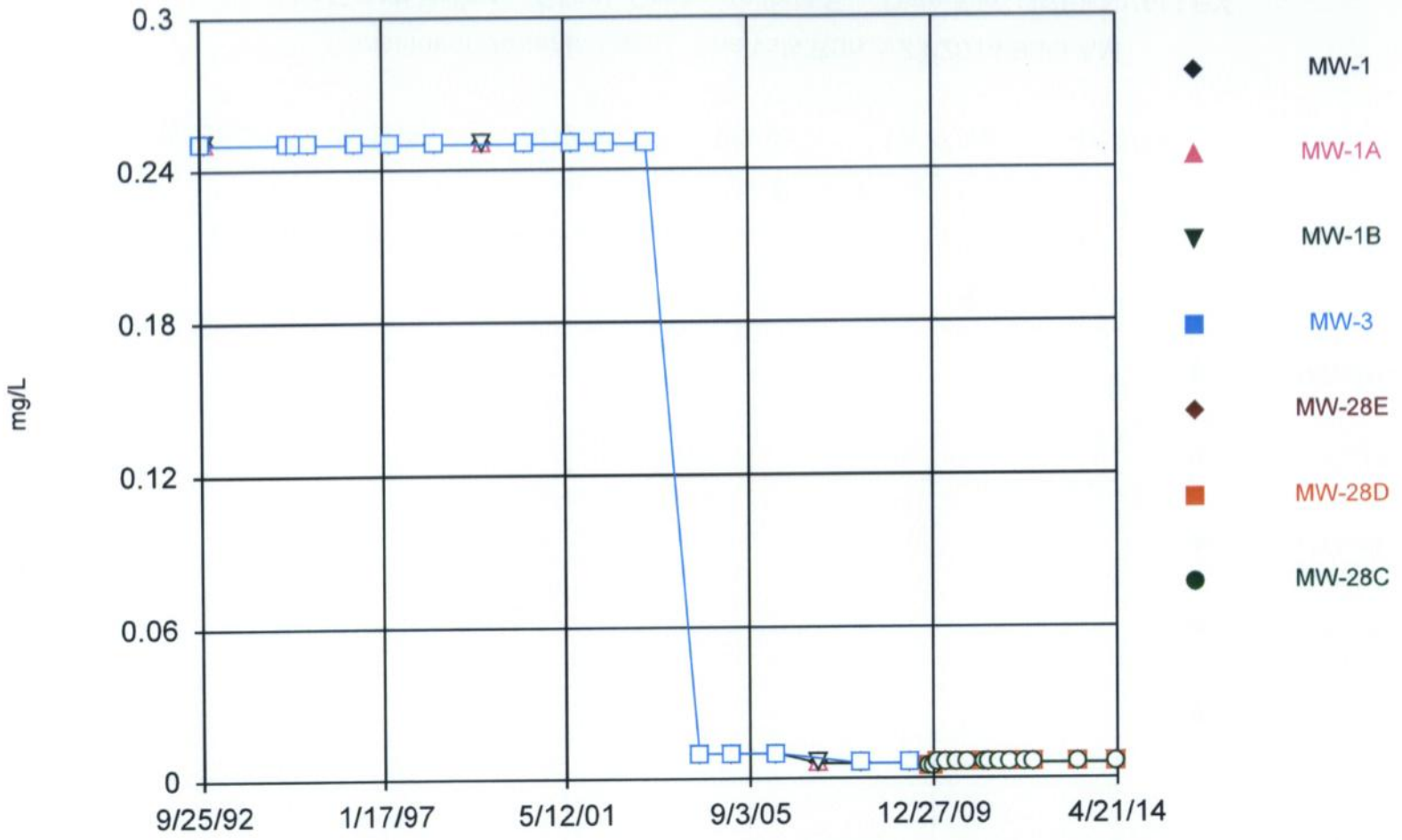
Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.1756, Std. Dev.=0.05928, n=13, 23.08% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9113, critical = 0.866. Kappa = 1.869 (c=8, w=3, 1 of 2, event alpha = 0.1). Report alpha = 0.00438. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Zinc Total Analysis Run 5/23/2014 9:01 AM
Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

TIME SERIES PLOTS & DATA

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

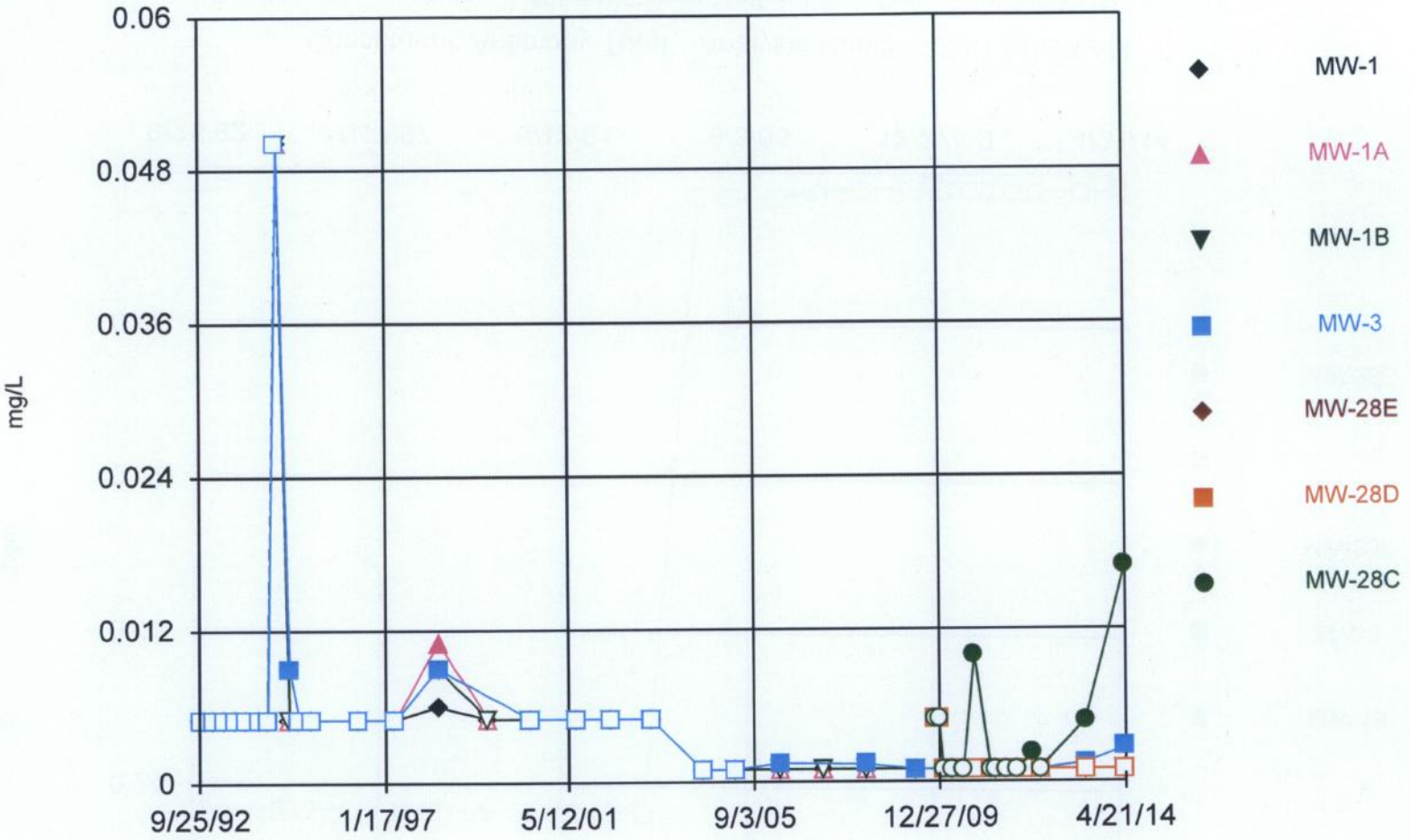


Constituent: Antimony Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

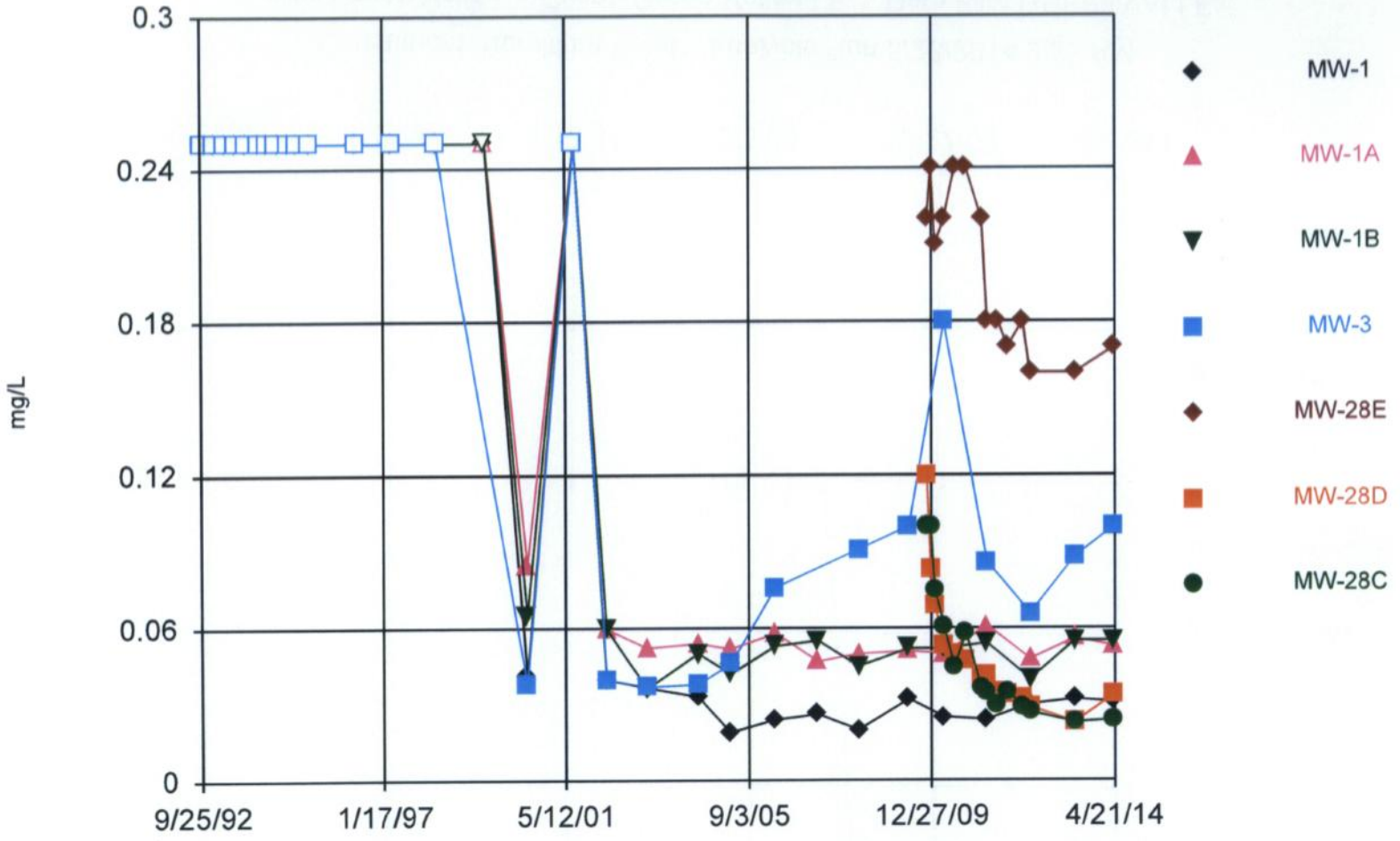


Constituent: Arsenic Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

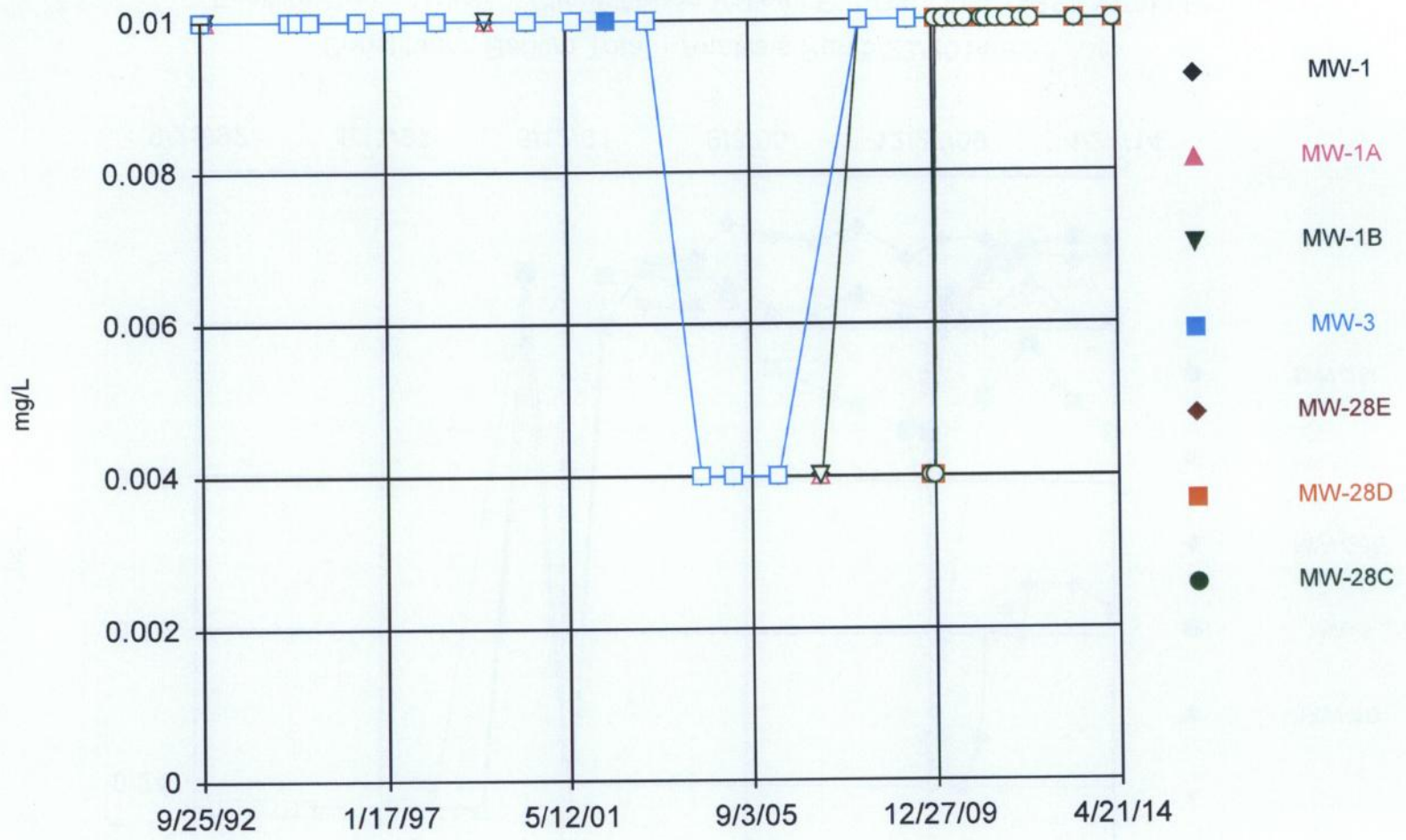


Constituent: Barium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

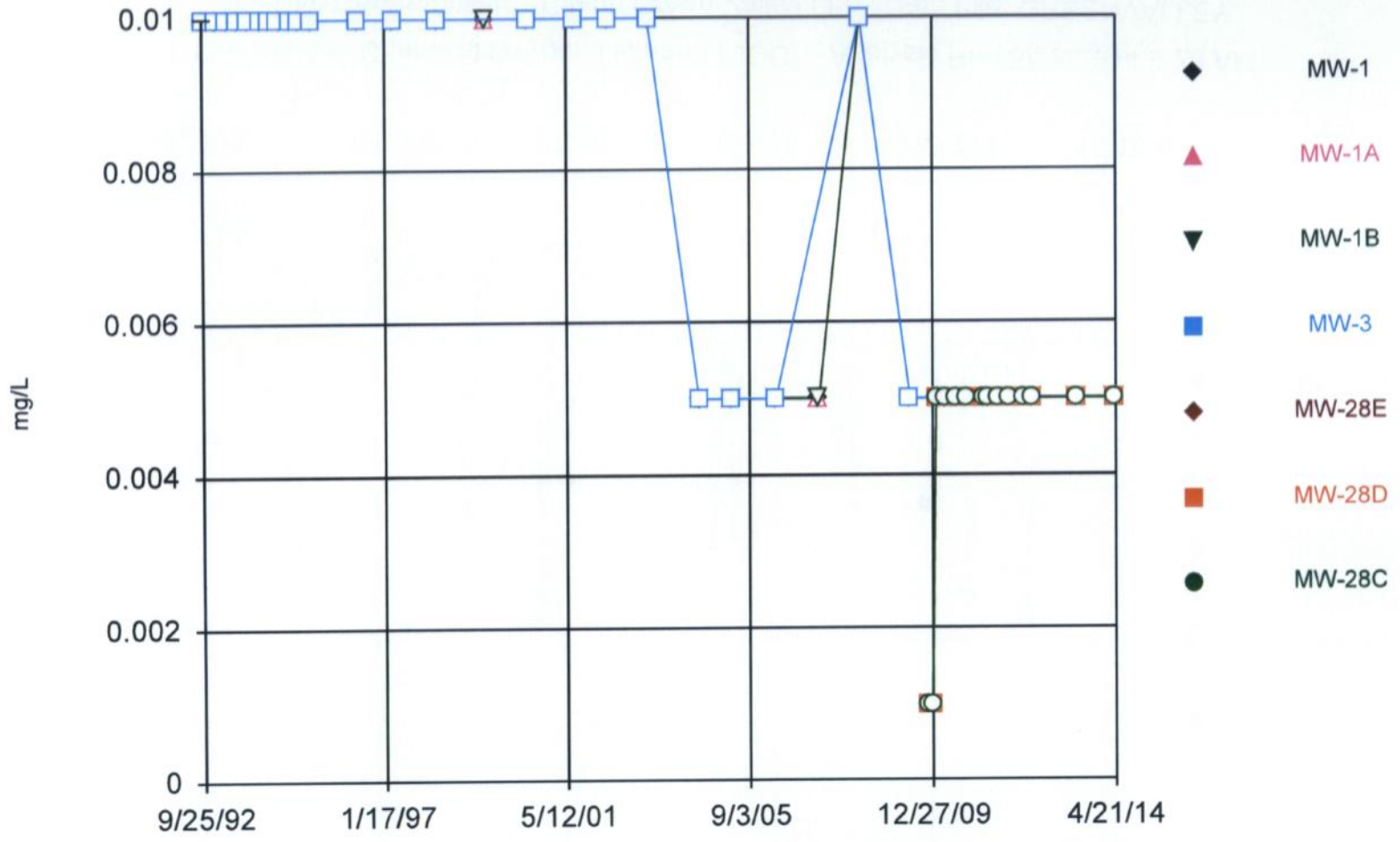


Constituent: Beryllium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

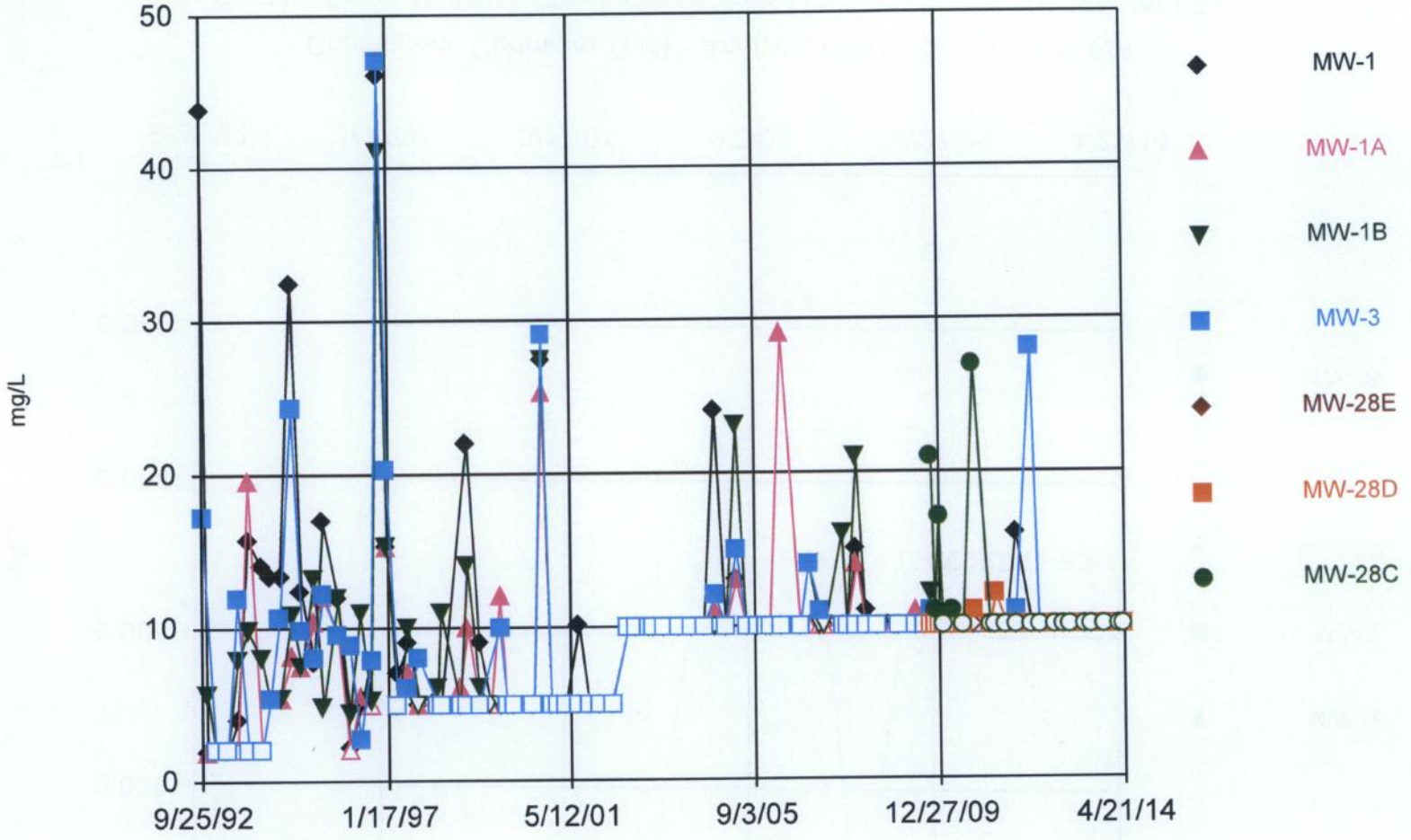


Constituent: Cadmium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

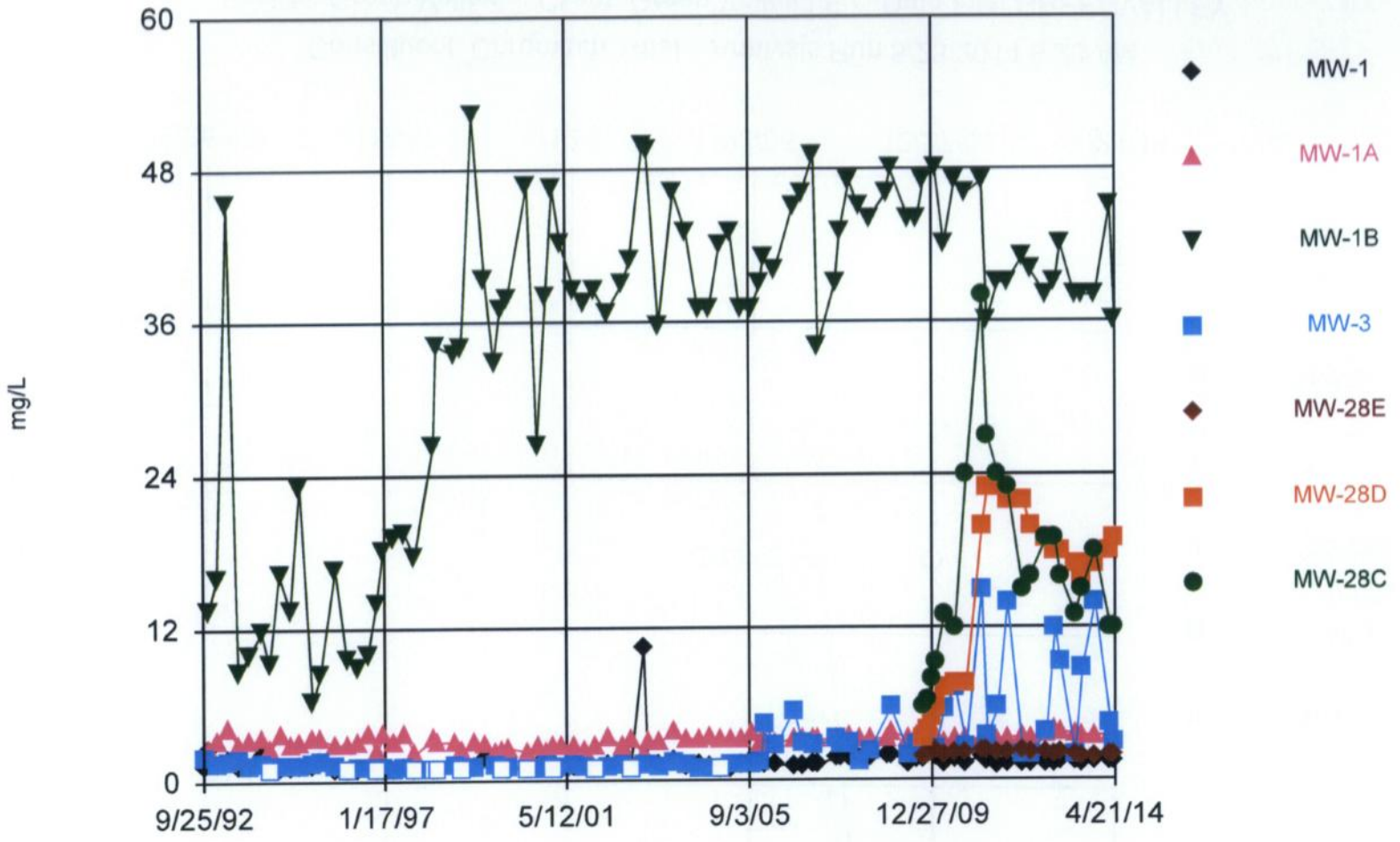


Constituent: Chemical Oxygen Demand [COD] Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

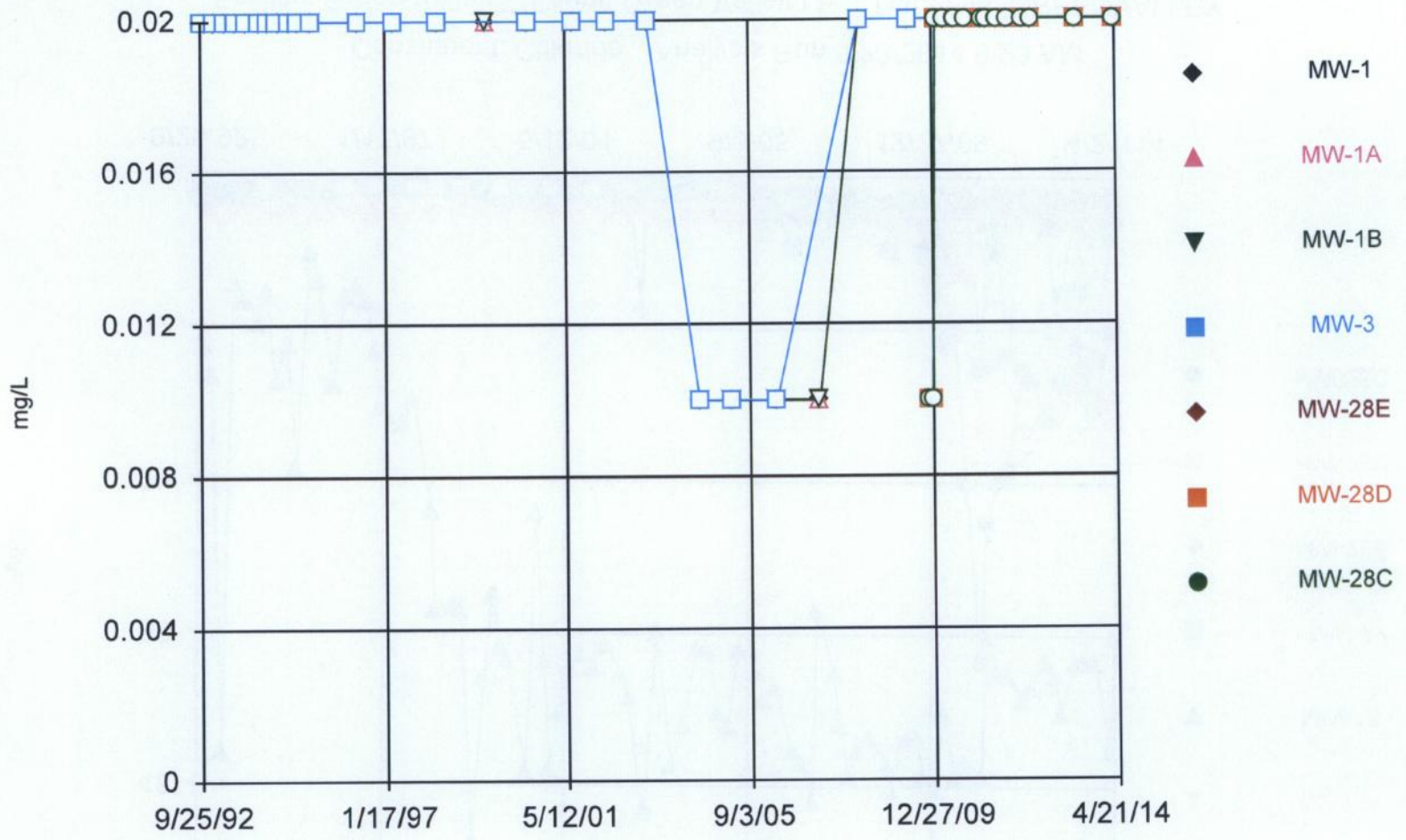


Constituent: Chloride Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

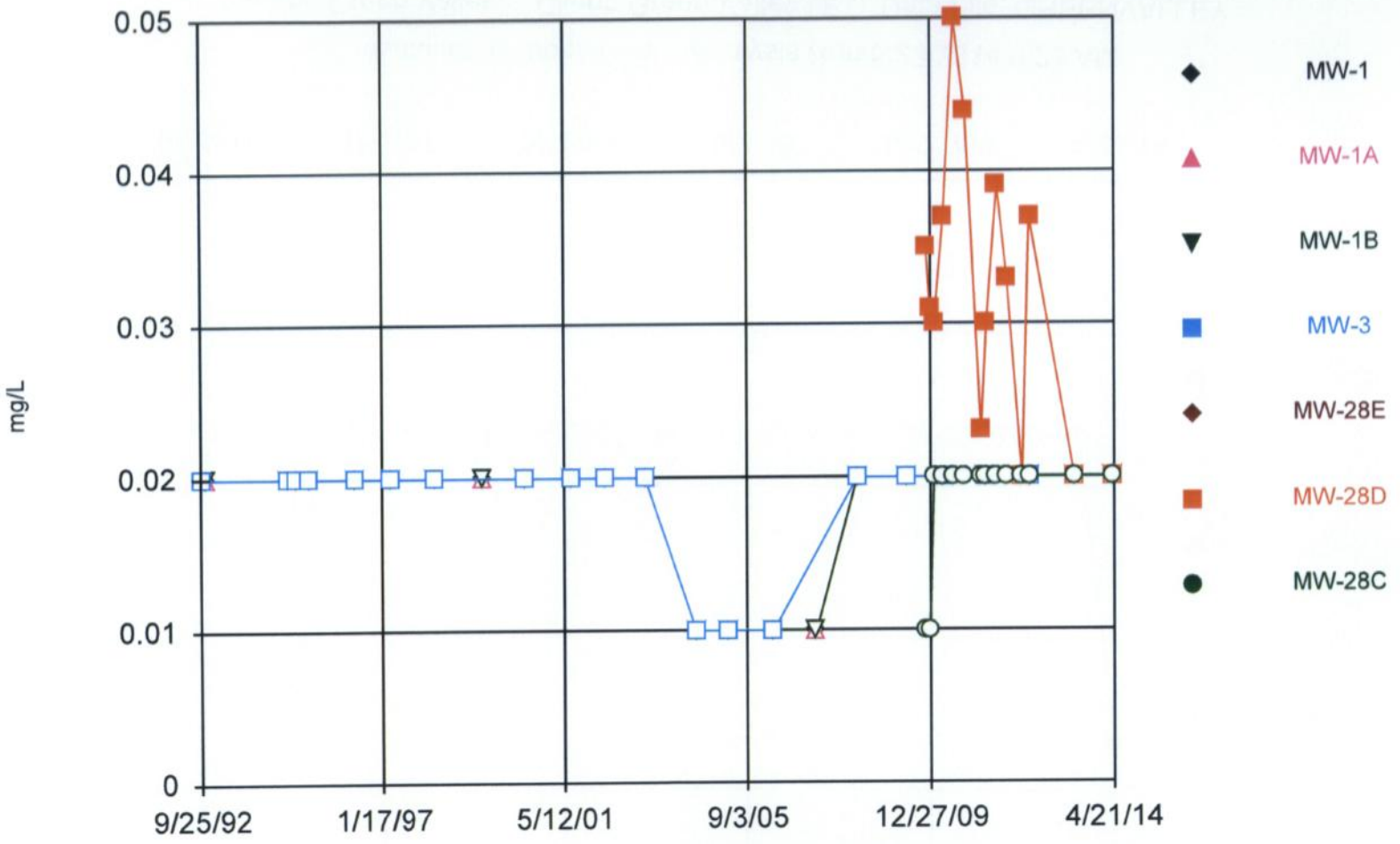


Constituent: Chromium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

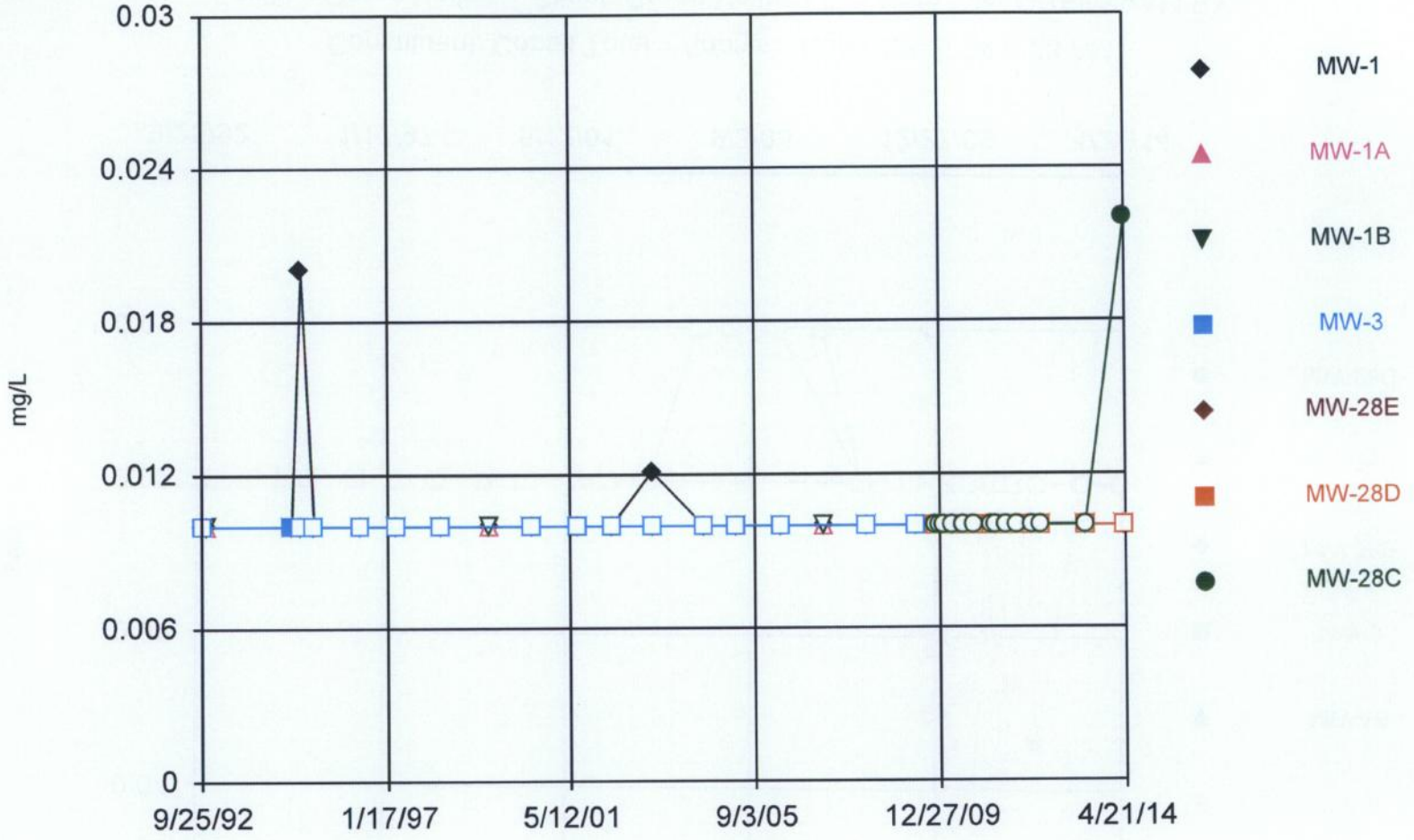


Constituent: Cobalt Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

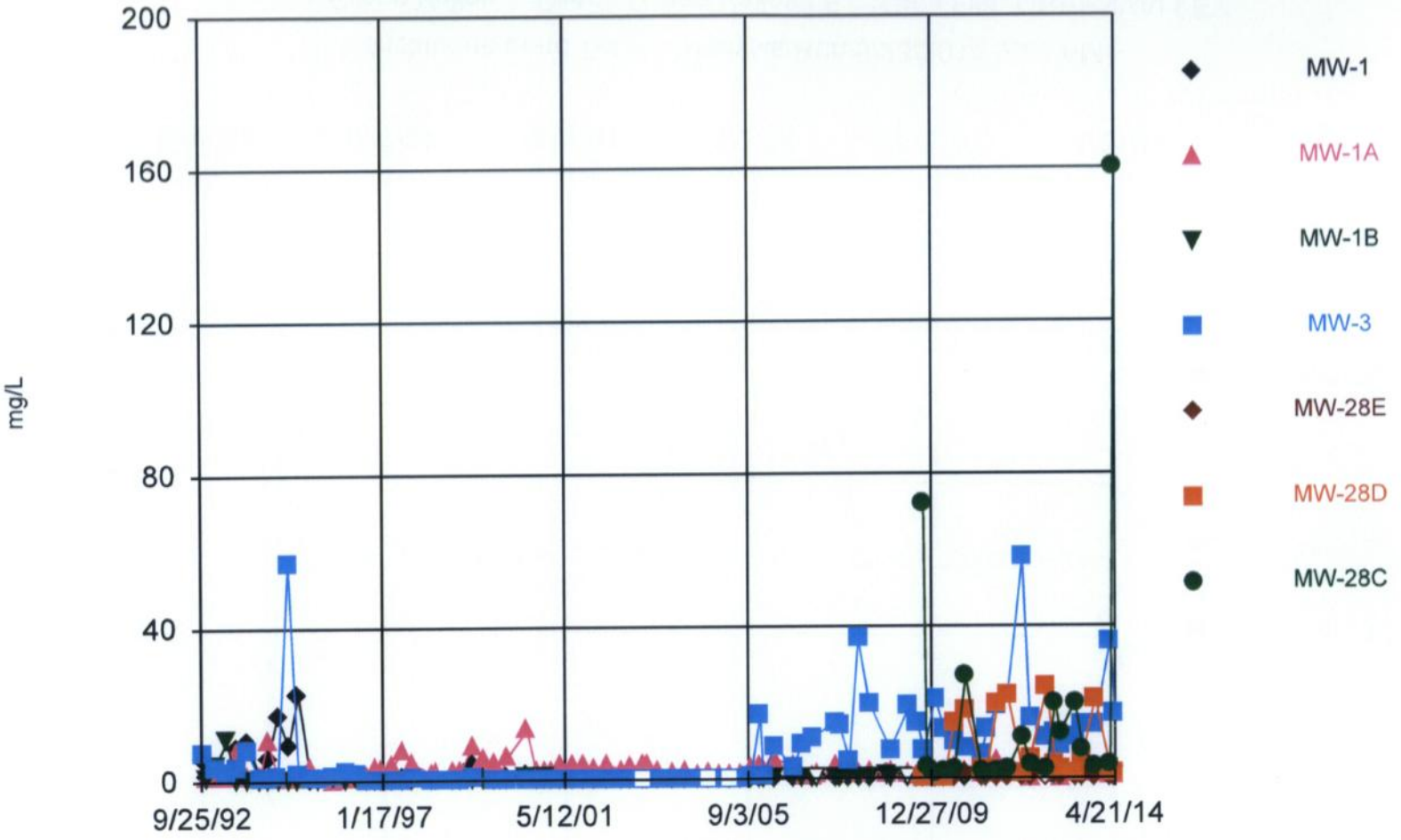


Constituent: Copper Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

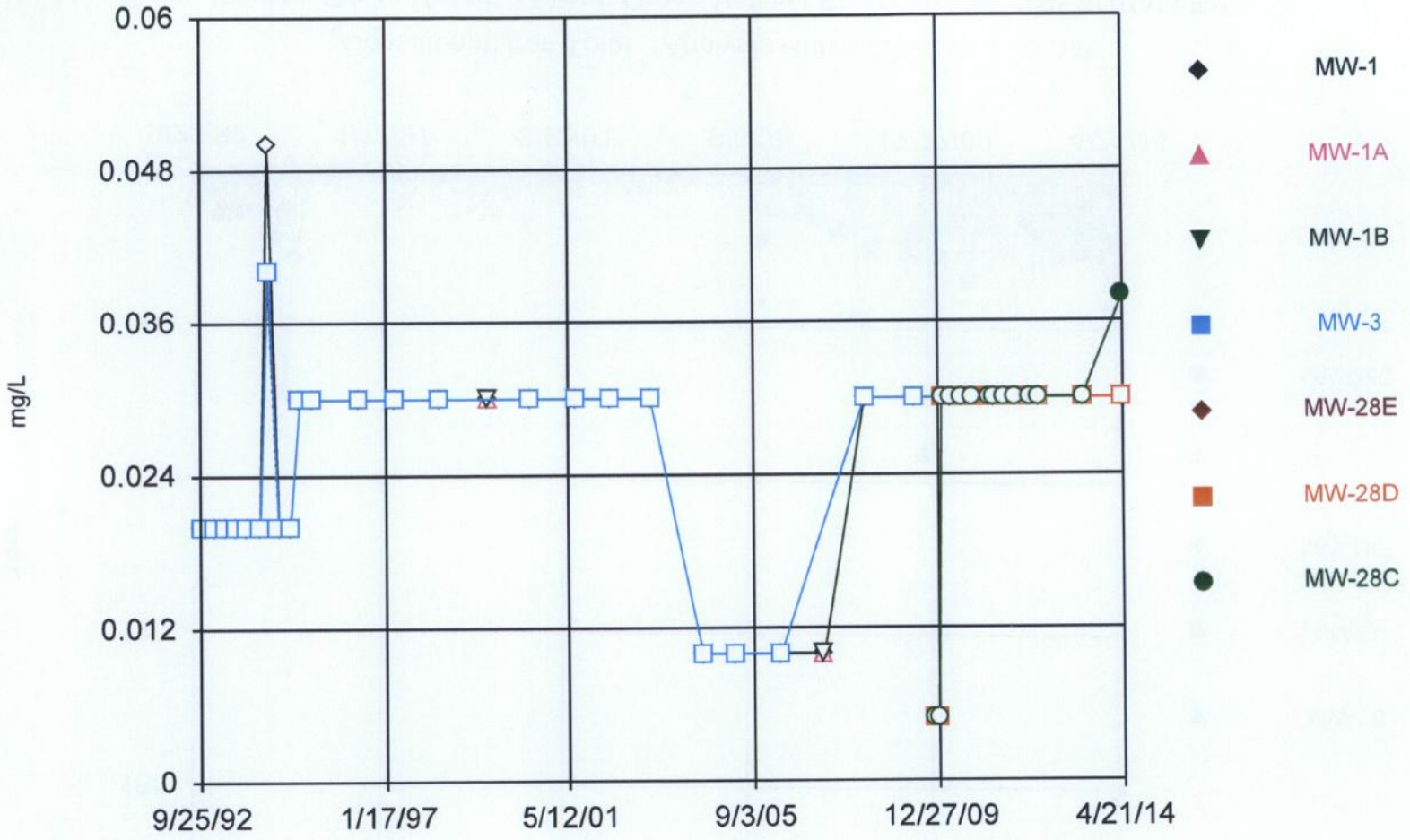


Constituent: Iron Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

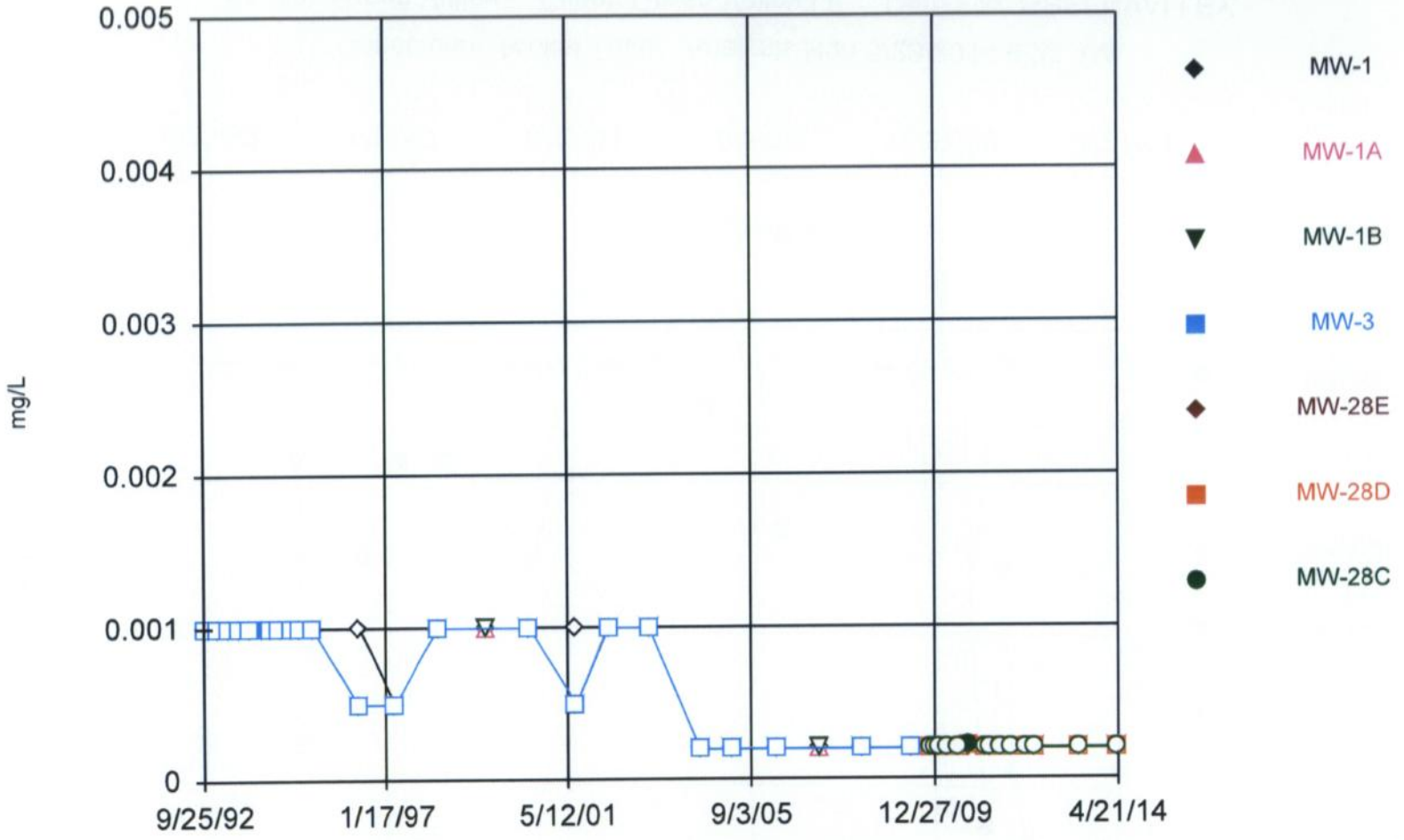


Constituent: Lead Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

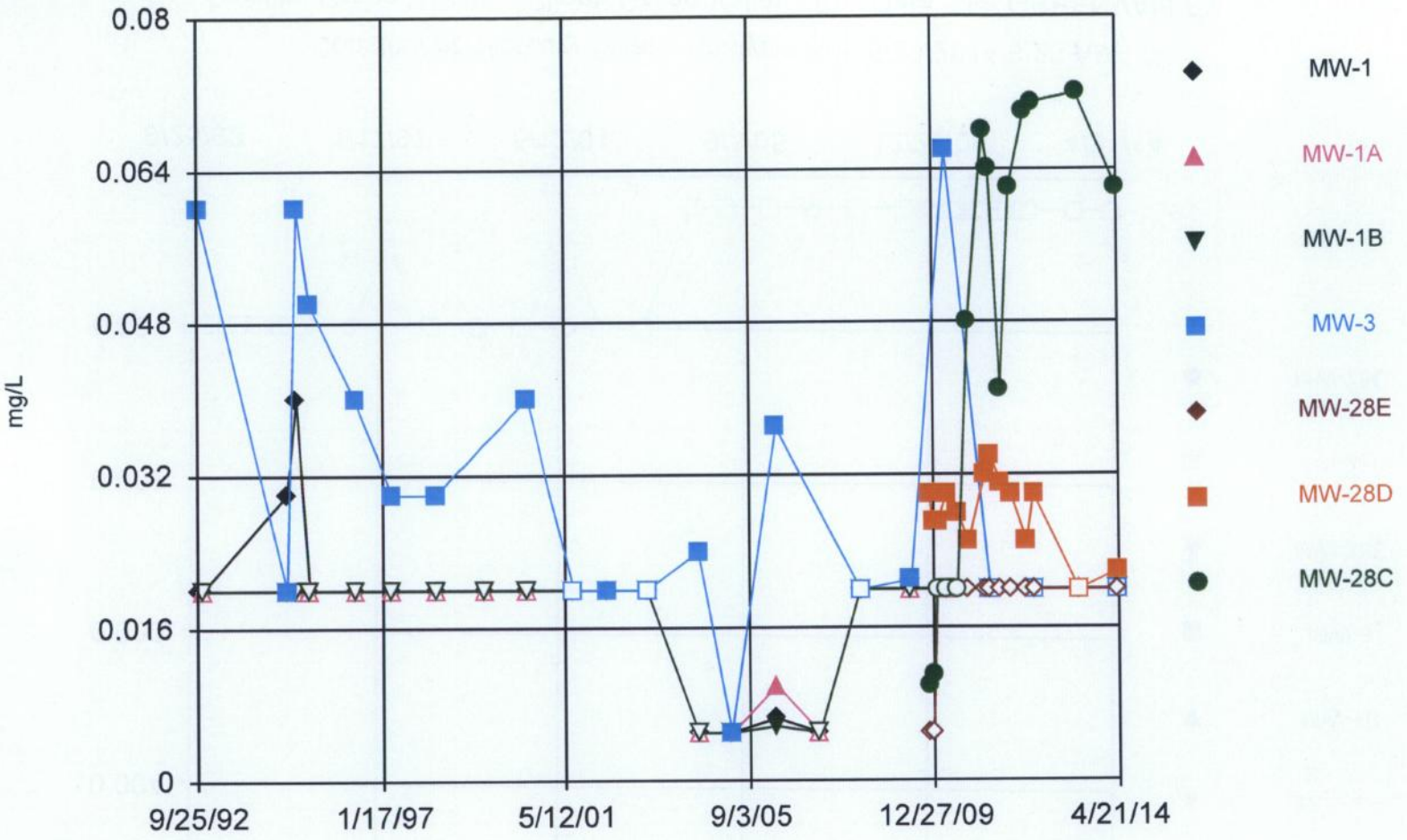


Constituent: Mercury Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

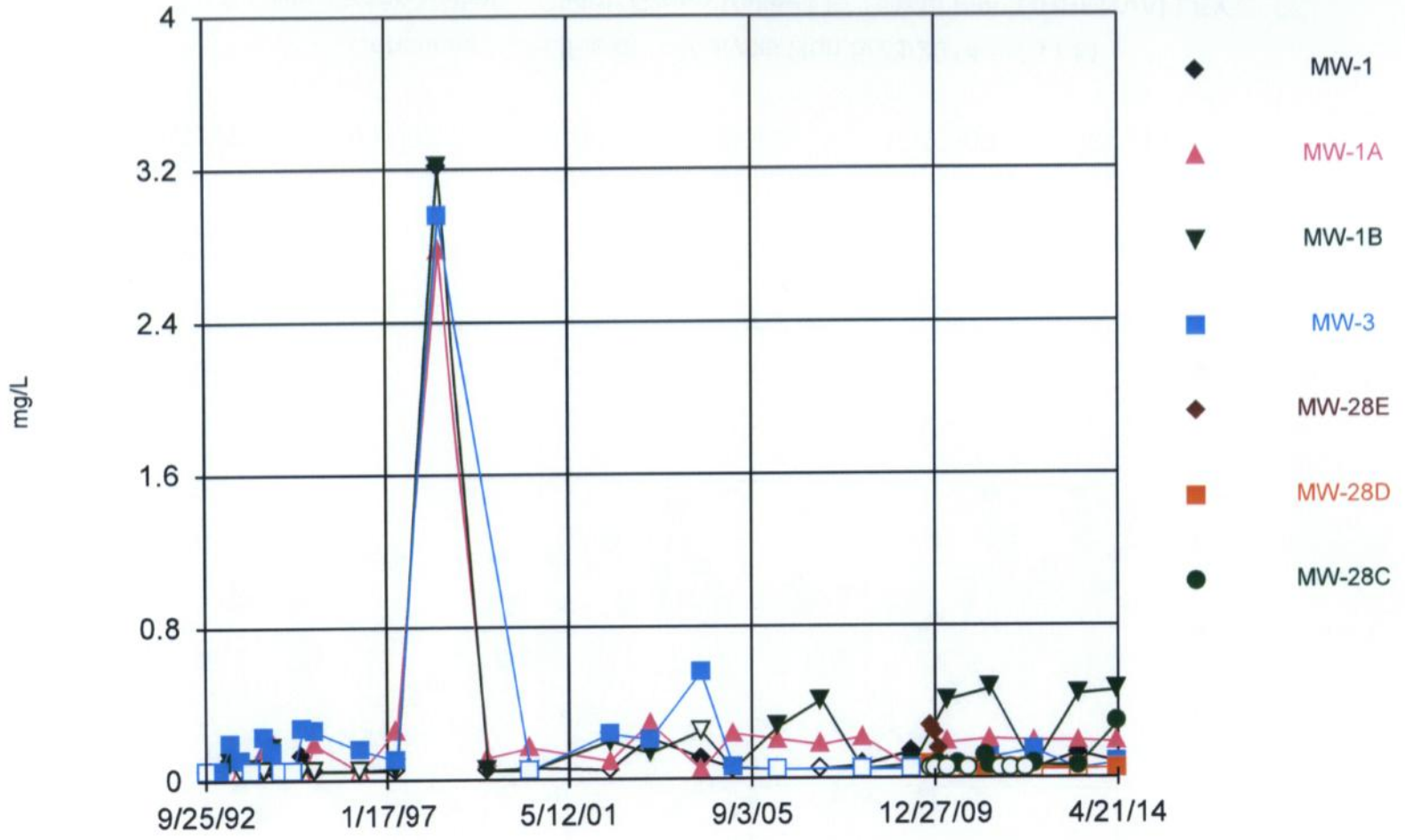


Constituent: Nickel Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

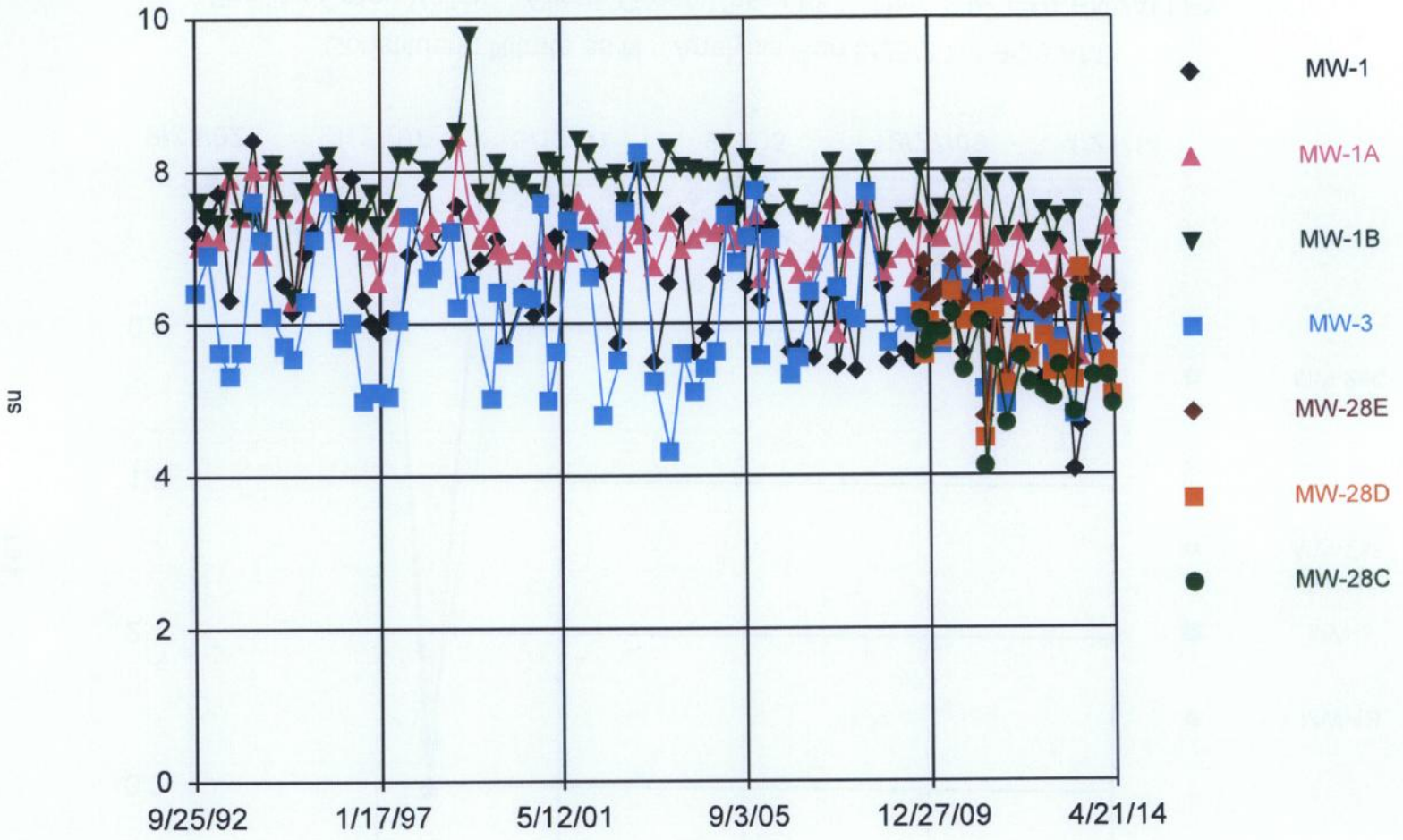
Time Series



Constituent: Nitrate as N Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Time Series

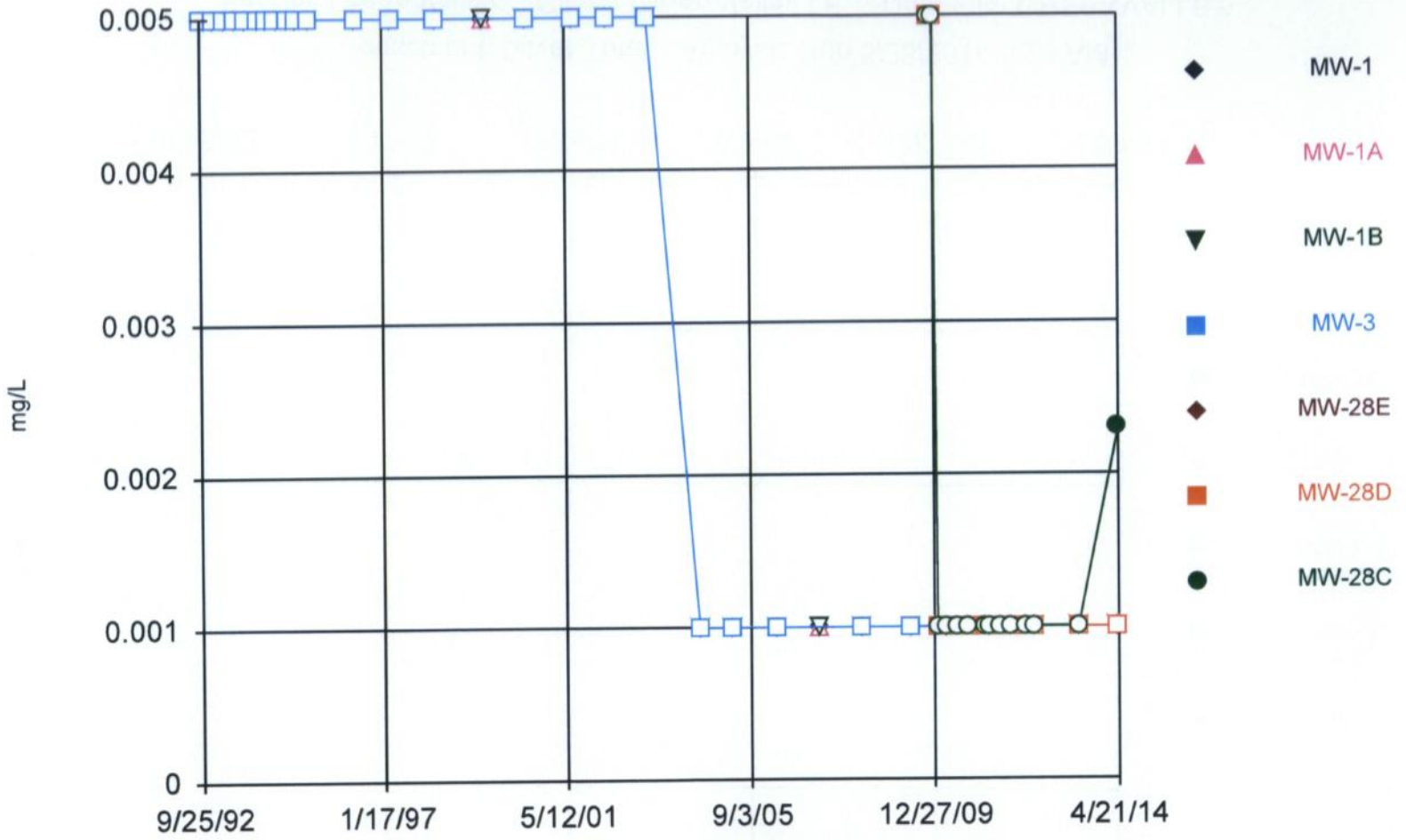


Constituent: pH [Field] Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

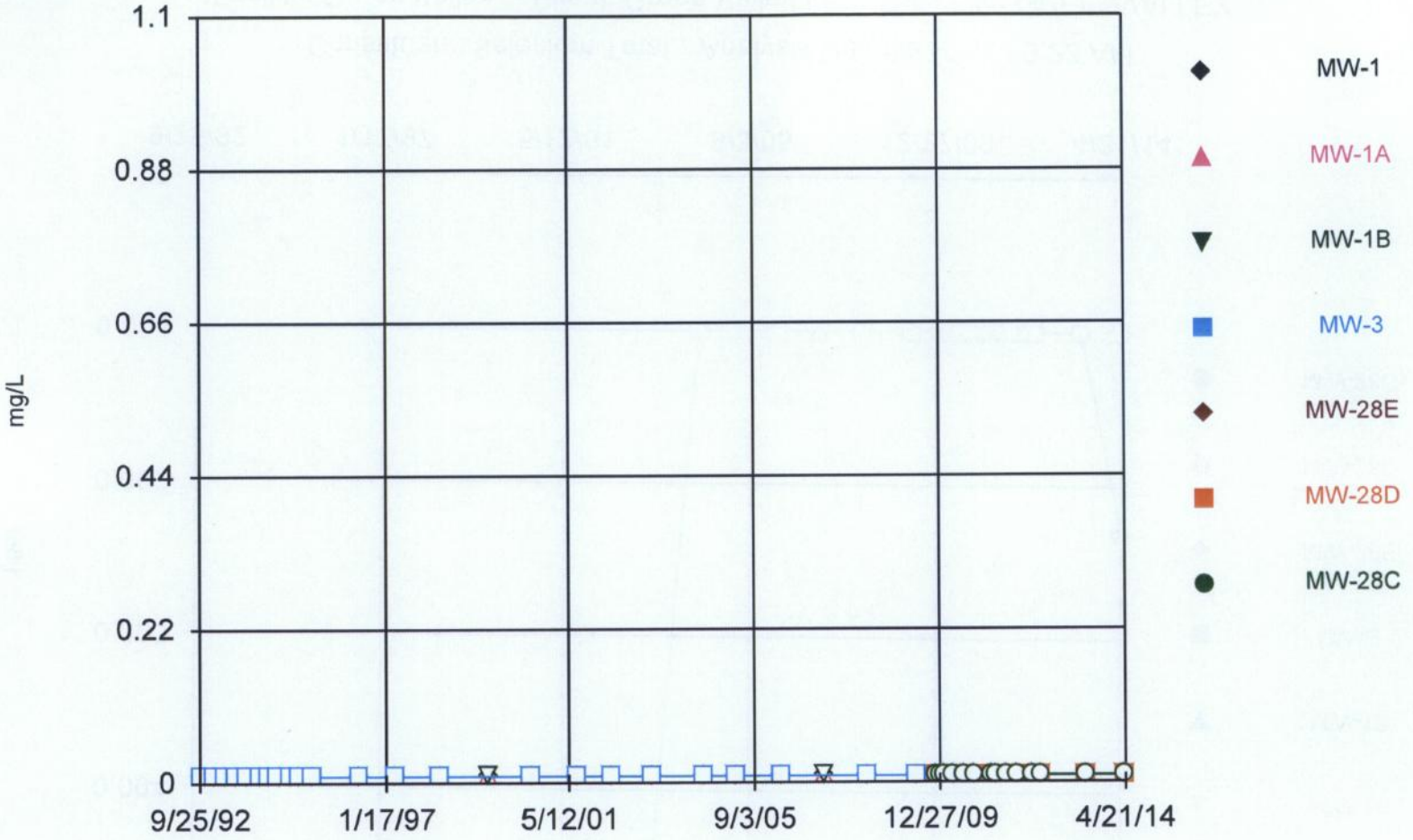


Constituent: Selenium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

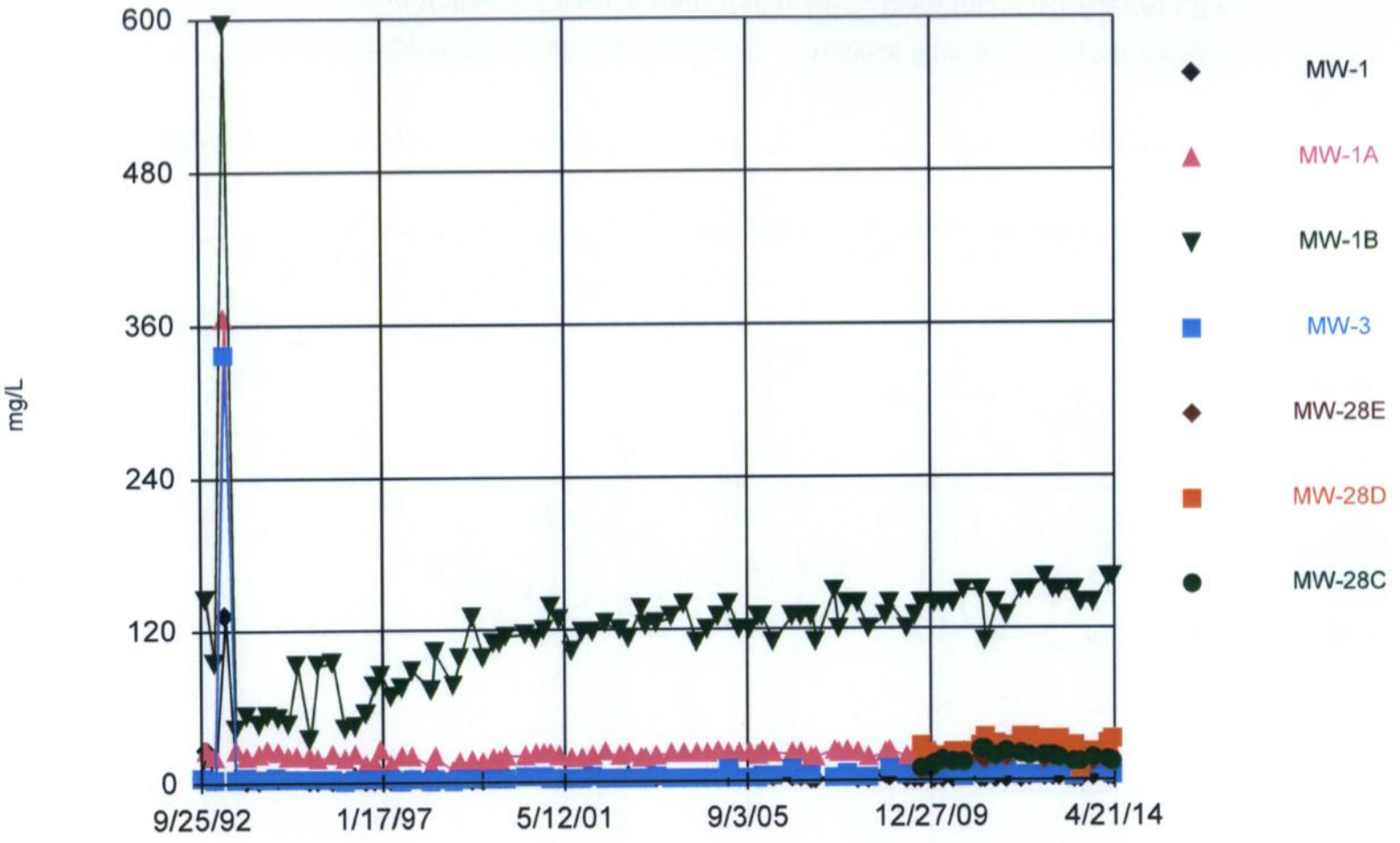
Time Series



Constituent: Silver Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

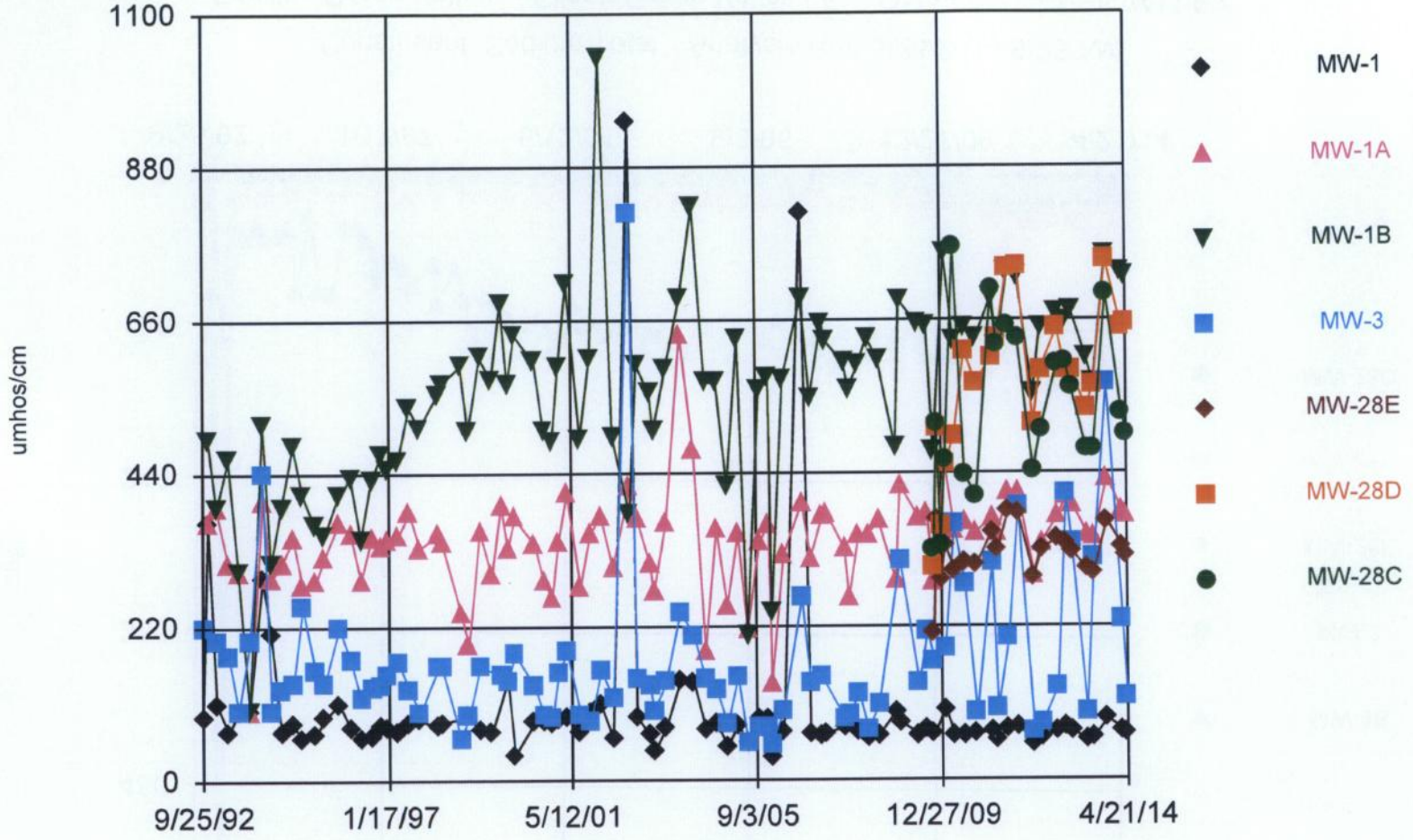
Time Series



Constituent: Sodium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Time Series

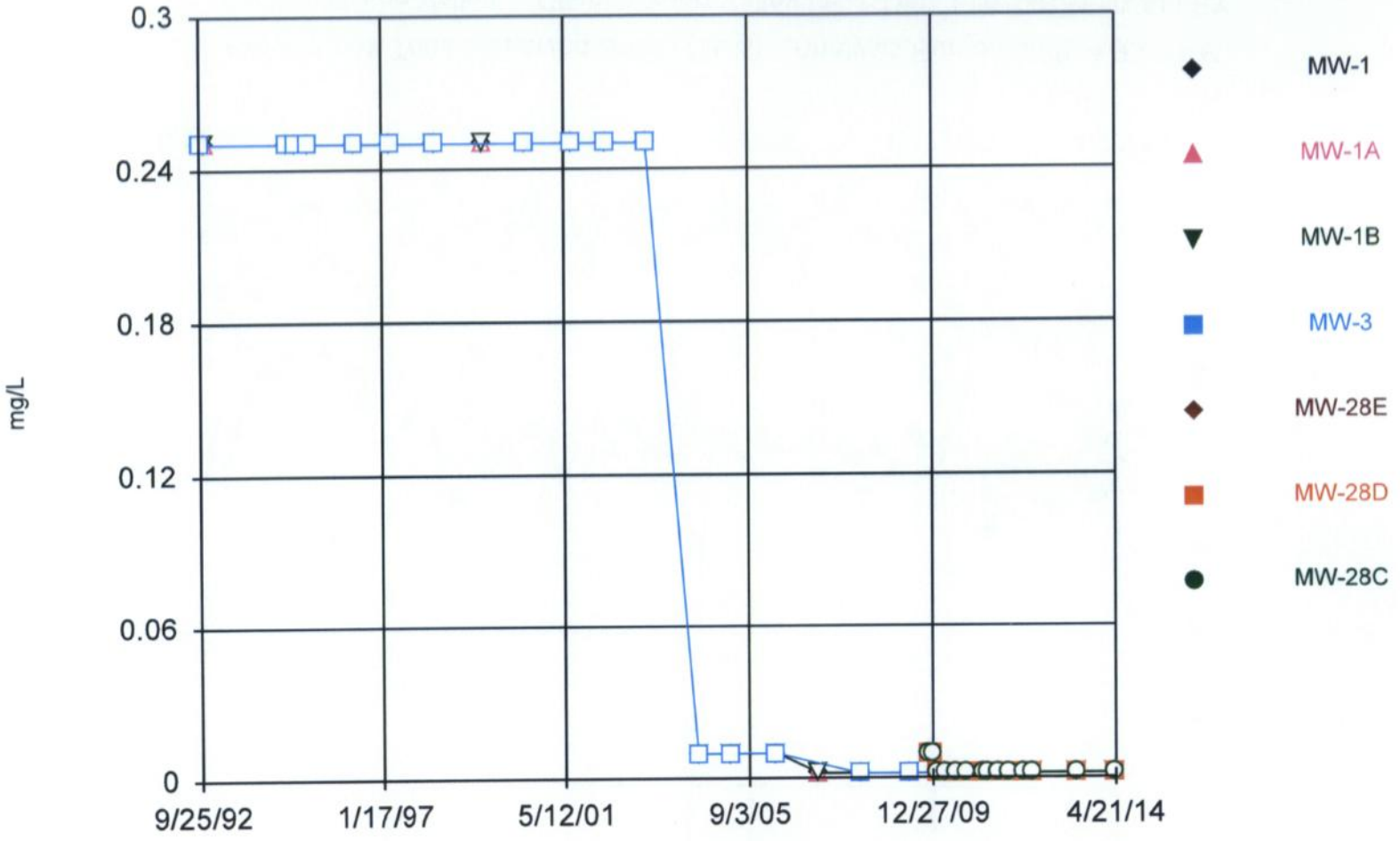


Constituent: Specific Conductance [Field] Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

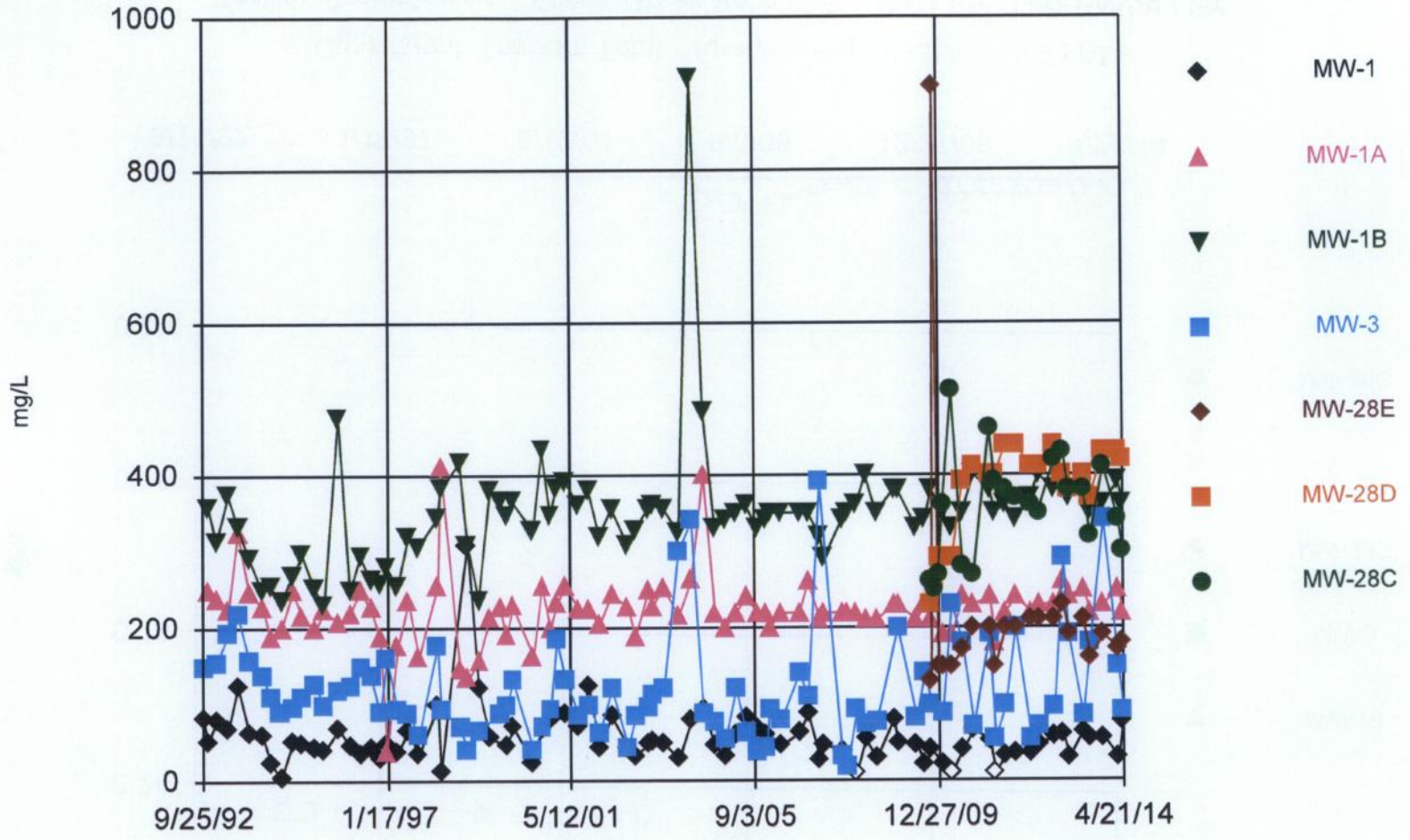


Constituent: Thallium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

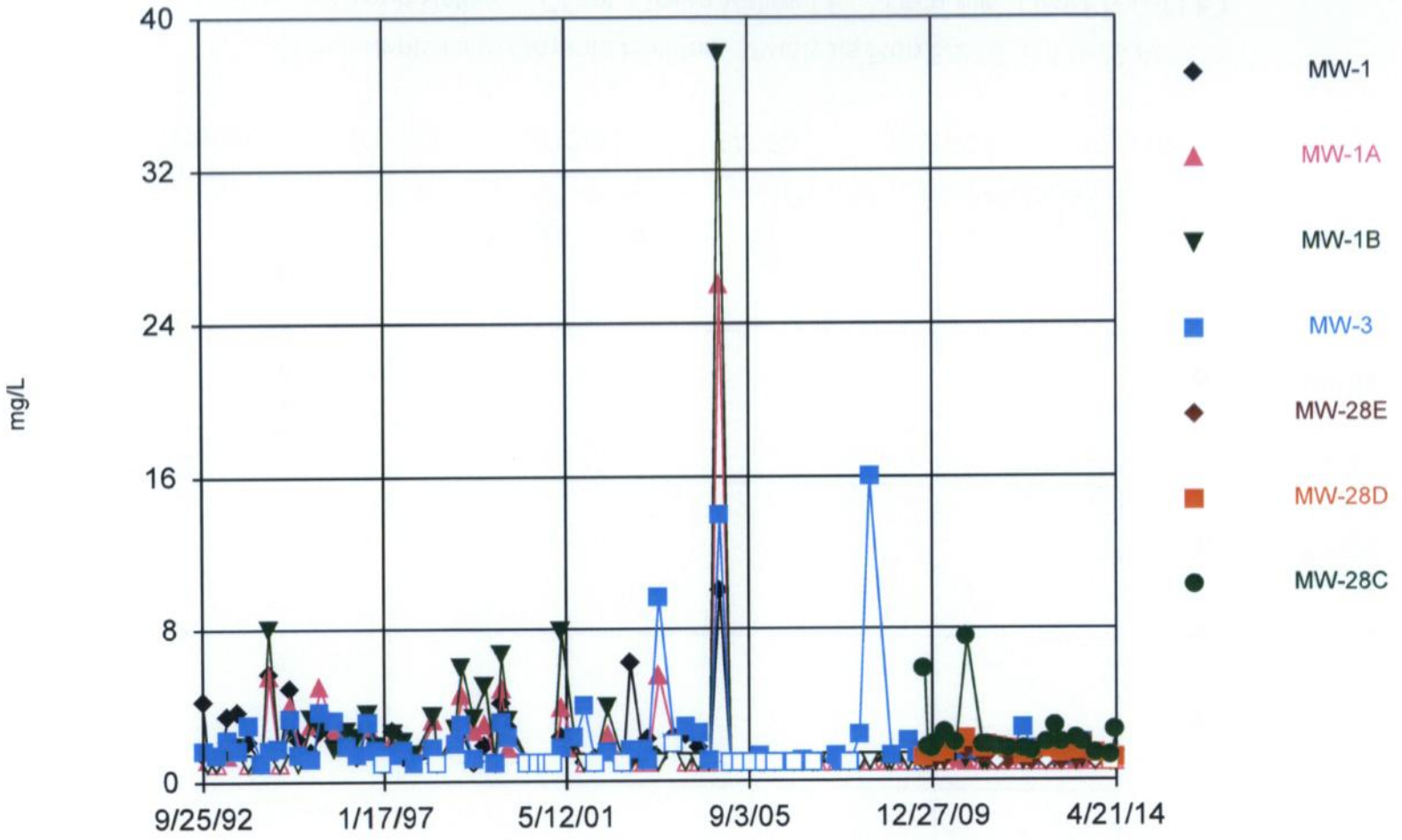


Constituent: Total Dissolved Solids [TDS] Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

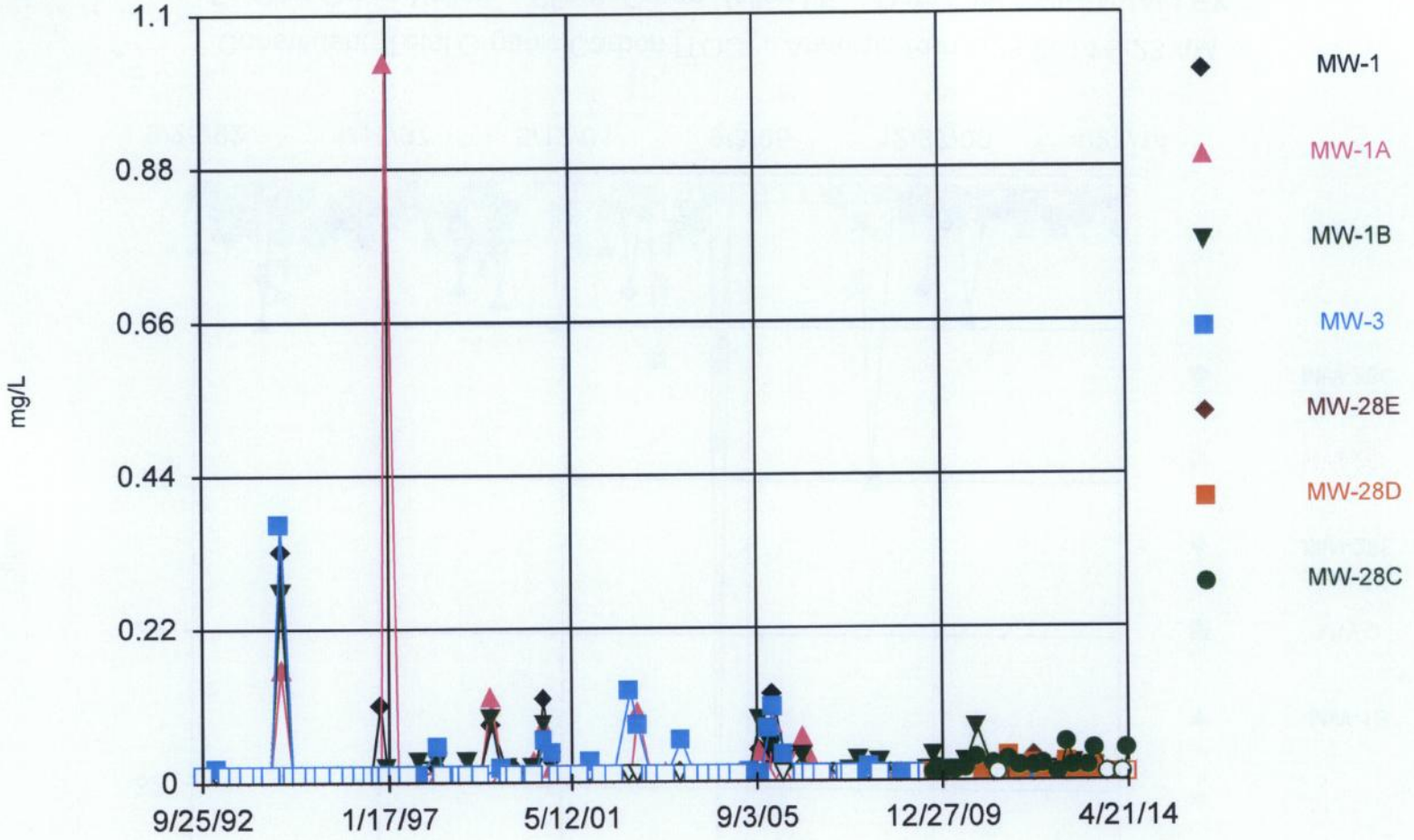


Constituent: Total Organic Carbon [TOC] Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

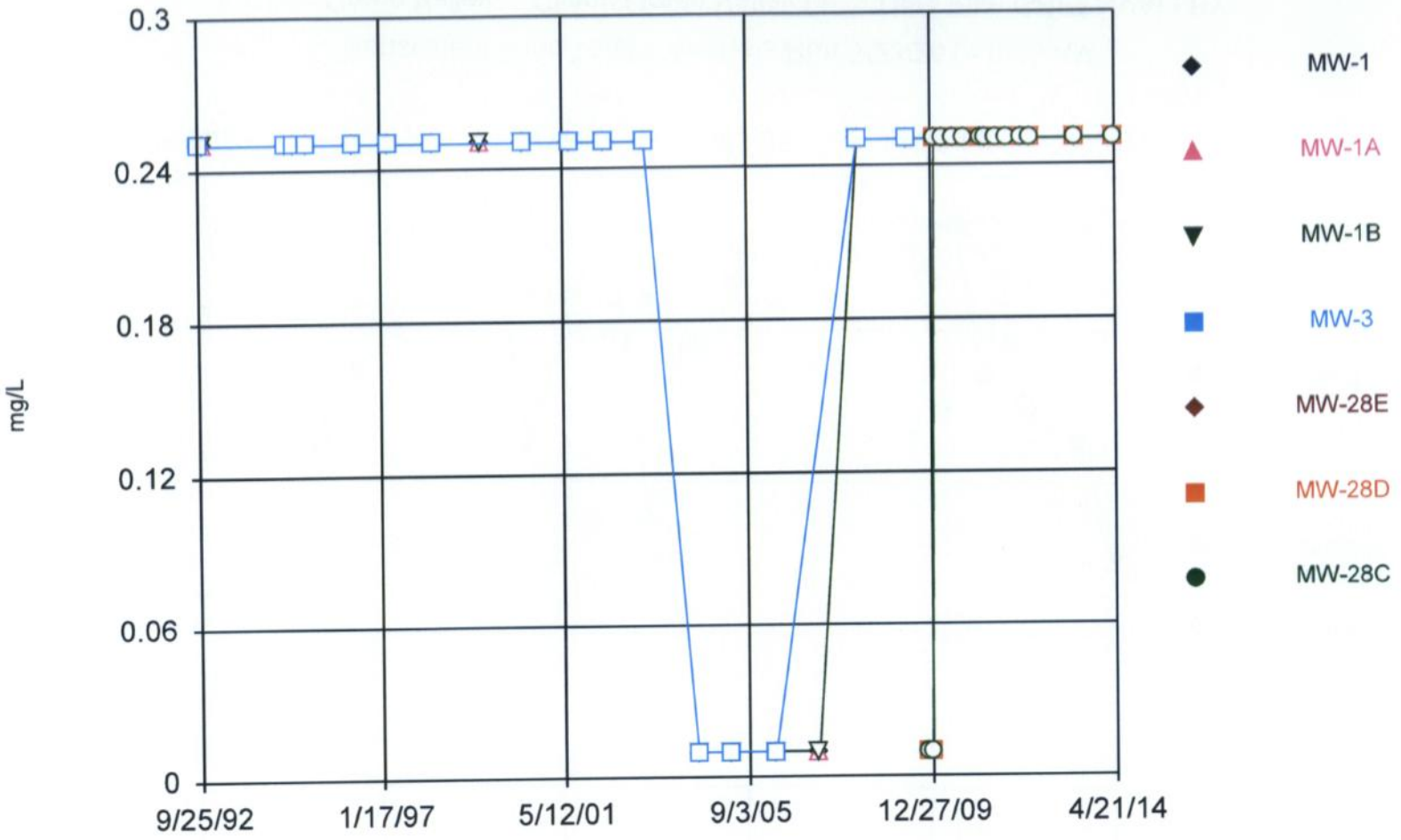


Constituent: Total Organic Halides Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series

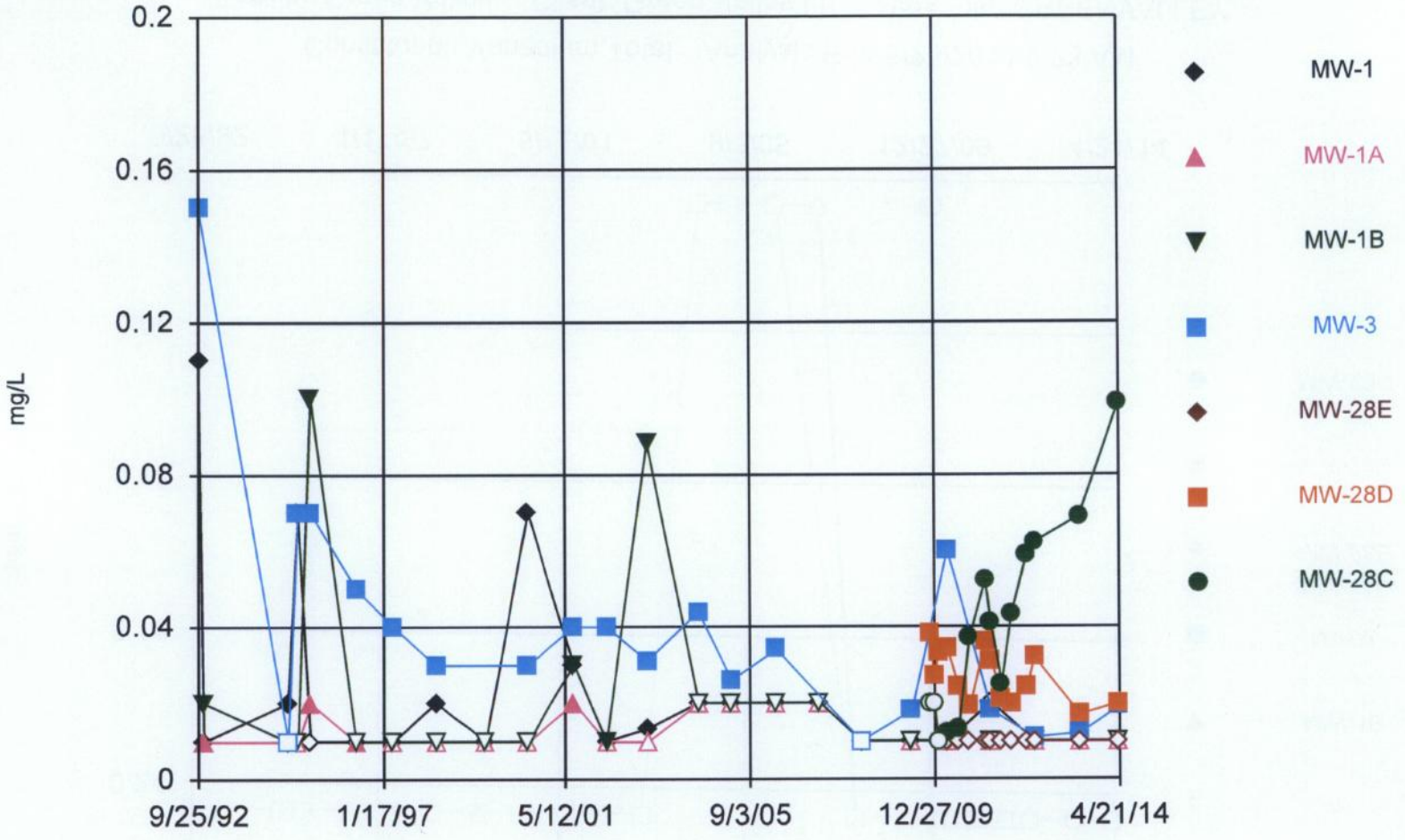


Constituent: Vanadium Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Sanitas™ v.9.4.35 n/a. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Total Analysis Run 5/23/2014 9:23 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

Time Series

Constituent: Antimony Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.25			<0.25			
11/9/1992	<0.25	<0.25	<0.25				
10/18/1994				<0.25			
10/19/1994	<0.25	<0.25	<0.25				
1/11/1995	<0.25	<0.25	<0.25	<0.25			
4/25/1995				<0.25			
4/26/1995	<0.25	<0.25	<0.25				
5/21/1996		<0.25		<0.25			
5/22/1996			<0.25				
6/5/1996	<0.25						
4/8/1997	<0.25	<0.25	<0.25	<0.25			
4/14/1998	<0.25	<0.25	<0.25	<0.25			
6/22/1999	<0.25	<0.25	<0.25				
6/19/2000				<0.25			
6/20/2000	<0.25	<0.25	<0.25				
7/26/2001	<0.25	<0.25	<0.25	<0.25			
4/29/2002	<0.25	<0.25	<0.25				
4/30/2002				<0.25			
4/10/2003	<0.25	<0.25	<0.25	<0.25			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.006	<0.006	<0.006				
4/7/2008	<0.006	<0.006	<0.006				
4/8/2008				<0.006			
6/15/2009	<0.006	<0.006	<0.006	<0.006			
11/16/2009					<0.005	<0.005	<0.005
12/21/2009					<0.005	<0.005	<0.005
1/25/2010					<0.006	<0.006	<0.006
4/13/2010	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
7/14/2010					<0.006	<0.006	<0.006
10/19/2010					<0.006	<0.006	<0.006
3/3/2011					<0.006	<0.006	<0.006
4/19/2011	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
7/20/2011					<0.006	<0.006	<0.006
10/11/2011					<0.006	<0.006	<0.006
2/20/2012					<0.006	<0.006	<0.006
4/23/2012	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
5/15/2013	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
4/21/2014	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006

Time Series

Constituent: Arsenic Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.005			<0.005			
11/9/1992	<0.005	<0.005	<0.005				
1/18/1993		<0.005		<0.005			
1/19/1993	<0.005		<0.005				
4/26/1993	<0.005	<0.005	<0.005	<0.005			
7/19/1993	<0.005	<0.005	<0.005				
7/20/1993				<0.005			
10/19/1993	<0.005	<0.005	<0.005				
10/20/1993				<0.005			
2/8/1994	<0.005	<0.005	<0.005				
2/9/1994				<0.005			
4/18/1994	<0.005	<0.005	<0.005				
4/20/1994				<0.005			
7/13/1994				<0.05			
7/14/1994	<0.05	<0.05	<0.05				
10/18/1994				0.009			
10/19/1994	<0.005	<0.005	<0.005				
1/11/1995	<0.005	<0.005	<0.005	<0.005			
4/25/1995				<0.005			
4/26/1995	<0.005	<0.005	<0.005				
5/21/1996		<0.005		<0.005			
5/22/1996			<0.005				
6/5/1996	<0.005						
4/8/1997	<0.005	<0.005	<0.005	<0.005			
4/14/1998	0.006	0.011	0.009	0.009			
6/22/1999	<0.005	<0.005	<0.005				
6/19/2000				<0.005			
6/20/2000	<0.005	<0.005	<0.005				
7/26/2001	<0.005	<0.005	<0.005	<0.005			
4/29/2002	<0.005	<0.005	<0.005				
4/30/2002				<0.005			
4/10/2003	<0.005	<0.005	<0.005	<0.005			
6/23/2004	<0.001	<0.001	<0.001	<0.001			
3/30/2005	<0.001	<0.001	<0.001	<0.001			
4/19/2006	<0.001	<0.001	<0.001	0.0015			
4/23/2007	<0.001	<0.001	<0.001				
4/7/2008	<0.001	<0.001	<0.001				
4/8/2008				0.0014			
6/15/2009	<0.001	<0.001	<0.001	0.001			
11/16/2009					<0.005	<0.005	<0.005
12/21/2009					<0.005	<0.005	<0.005
1/25/2010					<0.001	<0.001	<0.001
4/13/2010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/14/2010					<0.001	<0.001	<0.001
10/19/2010					<0.001	<0.001	0.01
3/3/2011					<0.001	<0.001	<0.001
4/19/2011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/20/2011					<0.001	<0.001	<0.001
10/11/2011					<0.001	<0.001	<0.001
2/20/2012					<0.001	<0.001	0.0022
4/23/2012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
5/15/2013	<0.001	<0.001	<0.001	0.0015	<0.001	<0.001	0.0048

Time Series

Constituent: Arsenic Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	<0.001	<0.001	<0.001	0.0027	<0.001	<0.001	0.017

Time Series

Constituent: Barium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.25			<0.25			
11/9/1992	<0.25	<0.25	<0.25				
1/18/1993		<0.25		<0.25			
1/19/1993	<0.25		<0.25				
4/26/1993	<0.25	<0.25	<0.25	<0.25			
7/19/1993	<0.25	<0.25	<0.25				
7/20/1993				<0.25			
10/19/1993	<0.25	<0.25	<0.25				
10/20/1993				<0.25			
2/8/1994	<0.25	<0.25	<0.25				
2/9/1994				<0.25			
4/18/1994	<0.25	<0.25	<0.25				
4/20/1994				<0.25			
7/13/1994				<0.25			
7/14/1994	<0.25	<0.25	<0.25				
10/18/1994				<0.25			
10/19/1994	<0.25	<0.25	<0.25				
1/11/1995	<0.25	<0.25	<0.25	<0.25			
4/25/1995				<0.25			
4/26/1995	<0.25	<0.25	<0.25				
5/21/1996		<0.25		<0.25			
5/22/1996			<0.25				
6/5/1996	<0.25						
4/8/1997	<0.25	<0.25	<0.25	<0.25			
4/14/1998	<0.25	<0.25	<0.25	<0.25			
6/22/1999	<0.25	<0.25	<0.25				
6/19/2000				0.038			
6/20/2000	0.041	0.085	0.065				
7/26/2001	<0.25	<0.25	<0.25	<0.25			
4/29/2002	0.04	0.06	0.06				
4/30/2002				0.04			
4/10/2003	0.0366	0.0524	0.0362	0.0371			
6/23/2004	0.033	0.054	0.05	0.038			
3/30/2005	0.019	0.052	0.042	0.046			
4/19/2006	0.024	0.058	0.053	0.076			
4/23/2007	0.026	0.047	0.055				
4/7/2008	0.02	0.05	0.045				
4/8/2008				0.091			
6/15/2009	0.032	0.051	0.052	0.1			
11/16/2009					0.22	0.12	0.1
12/21/2009					0.24	0.083	0.1
1/25/2010					0.21	0.069	0.075
4/13/2010	0.025	0.05	0.052	0.18	0.22	0.053	0.061
7/14/2010					0.24	0.05	0.045
10/19/2010					0.24	0.047	0.058
3/3/2011					0.22	0.04	0.036
4/19/2011	0.024	0.061	0.054	0.086	0.18	0.041	0.035
7/20/2011					0.18	0.035	0.03
10/11/2011					0.17	0.034	0.035
2/20/2012					0.18	0.032	0.029
4/23/2012	0.03	0.048	0.04	0.066	0.16	0.029	0.027
5/15/2013	0.032	0.056	0.055	0.088	0.16	0.023	0.023

Time Series

Constituent: Barium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	0.031	0.053	0.055	0.1	0.17	0.034	0.024

Time Series

Constituent: Beryllium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.01			<0.01			
11/9/1992	<0.01	<0.01	<0.01				
10/18/1994				<0.01			
10/19/1994	<0.01	<0.01	<0.01				
1/11/1995	<0.01	<0.01	<0.01	<0.01			
4/25/1995				<0.01			
4/26/1995	<0.01	<0.01	<0.01				
5/21/1996		<0.01		<0.01			
5/22/1996			<0.01				
6/5/1996	<0.01						
4/8/1997	<0.01	<0.01	<0.01	<0.01			
4/14/1998	<0.01	<0.01	<0.01	<0.01			
6/22/1999	<0.01	<0.01	<0.01				
6/19/2000				<0.01			
6/20/2000	<0.01	<0.01	<0.01				
7/26/2001	<0.01	<0.01	<0.01	<0.01			
4/29/2002	0.01	0.01	0.01				
4/30/2002				0.01			
4/10/2003	<0.01	<0.01	<0.01	<0.01			
6/23/2004	<0.004	<0.004	<0.004	<0.004			
3/30/2005	<0.004	<0.004	<0.004	<0.004			
4/19/2006	<0.004	<0.004	<0.004	<0.004			
4/23/2007	<0.004	<0.004	<0.004				
4/7/2008	<0.01	<0.01	<0.01				
4/8/2008				<0.01			
6/15/2009	<0.01	<0.01	<0.01	<0.01			
11/16/2009					<0.004	<0.004	<0.004
12/21/2009					<0.004	<0.004	<0.004
1/25/2010					<0.01	<0.01	<0.01
4/13/2010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/14/2010					<0.01	<0.01	<0.01
10/19/2010					<0.01	<0.01	<0.01
3/3/2011					<0.01	<0.01	<0.01
4/19/2011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/20/2011					<0.01	<0.01	<0.01
10/11/2011					<0.01	<0.01	<0.01
2/20/2012					<0.01	<0.01	<0.01
4/23/2012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
5/15/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Time Series

Constituent: Cadmium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.01			<0.01			
11/9/1992	<0.01	<0.01	<0.01				
1/18/1993		<0.01		<0.01			
1/19/1993	<0.01		<0.01				
4/26/1993	<0.01	<0.01	<0.01	<0.01			
7/19/1993	<0.01	<0.01	<0.01				
7/20/1993				<0.01			
10/19/1993	<0.01	<0.01	<0.01				
10/20/1993				<0.01			
2/8/1994	<0.01	<0.01	<0.01				
2/9/1994				<0.01			
4/18/1994	<0.01	<0.01	<0.01				
4/20/1994				<0.01			
7/13/1994				<0.01			
7/14/1994	<0.01	<0.01	<0.01				
10/18/1994				<0.01			
10/19/1994	<0.01	<0.01	<0.01				
1/11/1995	<0.01	<0.01	<0.01	<0.01			
4/25/1995				<0.01			
4/26/1995	<0.01	<0.01	<0.01				
5/21/1996		<0.01		<0.01			
5/22/1996			<0.01				
6/5/1996	<0.01						
4/8/1997	<0.01	<0.01	<0.01	<0.01			
4/14/1998	<0.01	<0.01	<0.01	<0.01			
6/22/1999	<0.01	<0.01	<0.01				
6/19/2000				<0.01			
6/20/2000	<0.01	<0.01	<0.01				
7/26/2001	<0.01	<0.01	<0.01	<0.01			
4/29/2002	<0.01	<0.01	<0.01				
4/30/2002				<0.01			
4/16/2003	<0.01	<0.01	<0.01	<0.01			
6/23/2004	<0.005	<0.005	<0.005	<0.005			
3/30/2005	<0.005	<0.005	<0.005	<0.005			
4/19/2006	<0.005	<0.005	<0.005	<0.005			
4/23/2007	<0.005	<0.005	<0.005				
4/7/2008	<0.01	<0.01	<0.01				
4/8/2008				<0.01			
6/15/2009	<0.005	<0.005	<0.005	<0.005			
11/16/2009					<0.001	<0.001	<0.001
12/21/2009					<0.001	<0.001	<0.001
1/25/2010					<0.005	<0.005	<0.005
4/13/2010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/14/2010					<0.005	<0.005	<0.005
10/19/2010					<0.005	<0.005	<0.005
3/3/2011					<0.005	<0.005	<0.005
4/19/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/20/2011					<0.005	<0.005	<0.005
10/11/2011					<0.005	<0.005	<0.005
2/20/2012					<0.005	<0.005	<0.005
4/23/2012	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
5/15/2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Cadmium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Chemical Oxygen Demand [COD] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	43.8			17.2			
11/9/1992	1.9	1.9	5.71				
1/18/1993		<2		<2			
1/19/1993	<2		<2				
4/26/1993	<2	<2	<2	<2			
7/19/1993	3.92	<2	7.84				
7/20/1993				11.9			
10/19/1993	15.7	19.6	9.8				
10/20/1993				<2			
2/8/1994	14	<2	8				
2/9/1994				<2			
4/18/1994	13.3	5.33	5.33				
4/20/1994				5.33			
7/13/1994				10.7			
7/14/1994	13.3	5.33	5.33				
10/18/1994				24.3			
10/19/1994	32.4	8.11	10.8				
1/11/1995	12.3	7.41	7.41	9.88			
4/25/1995				8			
4/26/1995	7.79	10.4	13.2				
7/10/1995				12.2			
7/11/1995	16.9	12	4.82				
11/14/1995	11.9	9.52		9.52			
11/15/1995			11.9				
2/19/1996				8.89			
2/20/1996	2.22	<2	4.44				
5/21/1996		5.48		2.74			
5/22/1996			11				
6/5/1996	5.13						
8/19/1996	7.89	<5	5.26	7.89			
11/5/1996	46	47	41	47			
1/7/1997	15.2	15.2	15.2	20.3			
4/8/1997	7	<5	<5	<5			
7/8/1997	9	7	10	6			
10/9/1997	<5	5	<5	8			
3/19/1998	<5	<5	6	<5			
4/14/1998	5	<5	11	<5			
9/30/1998		6	<5	<5			
12/1/1998	22	10	14	<5			
3/9/1999	9	<5	6	<5			
6/22/1999	5	<5	<5				
9/7/1999		12	<5	10			
11/2/1999	<5	<5	<5	<5			
1/5/2000	<5	<5	<5	<5			
6/19/2000				<5			
6/20/2000	<5	<5	<5				
9/6/2000	27.3	25.3	27.4	29			
11/28/2000	<5	<5	<5	<5			
1/22/2001	<5	<5	<5	<5			
4/2/2001	<5	<5	<5	<5			
7/26/2001	10.1	<5	<5	<5			
10/18/2001	<5	<5	<5				

Time Series

Constituent: Chemical Oxygen Demand [COD] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				<5			
1/14/2002	<5	<5	<5				
1/15/2002				<5			
4/29/2002	<5	<5	<5				
4/30/2002				<5			
9/18/2002	<10	<10	<10	<10			
11/19/2002	<10	<10	<10	<10			
3/10/2003	<10	<10	<10	<10			
4/10/2003	<10	<10	<10	<10			
7/22/2003	<10	<10	<10	<10			
11/25/2003	<10	<10	<10				
11/26/2003				<10			
3/16/2004				<10			
3/17/2004	<10	<10	<10				
6/23/2004	<10	<10	<10	<10			
9/29/2004	24	11	<10	12			
12/27/2004	<10	<10	<10	<10			
3/30/2005	13	13	23	15			
6/20/2005	<10	<10	<10	<10			
9/27/2005	<10	<10	<10	<10			
12/16/2005	<10	<10	<10	<10			
1/9/2006	<10	<10	<10	<10			
4/19/2006	<10	29	<10	<10			
9/24/2006	<10	<10	<10	<10			
12/5/2006	14	<10	14	14			
3/14/2007				11			
3/16/2007	<10	<10	<10				
4/23/2007	<10	<10	<10				
9/19/2007	<10	<10	16	<10			
10/30/2007	<10	<10	<10	<10			
1/23/2008	15	14	21	<10			
4/7/2008	11	<10	<10				
4/8/2008				<10			
7/9/2008	<10	<10	<10	<10			
12/2/2008	<10	<10	<10				
1/7/2009	<10	<10	<10	<10			
6/15/2009	<10	11	<10	<10			
8/26/2009	10	10	<10	<10			
10/20/2009	<10	<10	12	11	<10	<10	21
11/16/2009					<10	<10	11
12/21/2009					<10	<10	17
1/25/2010	<10	<10	<10	<10	<10	<10	<10
4/13/2010	<10	<10	<10	<10	<10	<10	11
7/14/2010				<10	<10	<10	<10
7/15/2010	<10	<10	10				
10/19/2010	<10	<10	<10	<10	<10	11	27
3/3/2011	<10	<10	<10	<10	<10	<10	<10
4/19/2011	<10	<10	<10	<10	<10	12	<10
7/20/2011	<10	<10	<10	<10	<10	<10	<10
10/11/2011				11	<10	<10	<10
10/12/2011	16	<10	<10				
2/20/2012	<10	<10	<10	28	<10	<10	<10

Time Series

Constituent: Chemical Oxygen Demand [COD] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	<10	<10	<10	<10	<10	<10	<10
9/18/2012	<10	<10	<10	<10			
9/14/2012					<10	<10	<10
11/26/2012	<10	<10	<10	<10	<10	<10	<10
1/10/2013				<10	<10	<10	<10
1/11/2013	<10	<10	<10				
5/15/2013	<10	<10	<10	<10	<10	<10	<10
7/17/2013	<10	<10	<10	<10	<10	<10	<10
11/6/2013	<10	<10	<10	<10	<10	<10	<10
3/12/2014	<10	<10	<10	<10	<10	<10	<10
4/21/2014	<10	<10	<10	<10	<10	<10	<10

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	1.29			1.98			
11/9/1992	2.61	2.61	13.4				
1/18/1993		3.2		1.47			
1/19/1993	1.39		15.9				
4/26/1993	1.71	4.34	45.3	1.53			
7/19/1993	1.32	2.89	8.65				
7/20/1993				1.81			
10/19/1993	1.31	3.18	9.91				
10/20/1993				1.3			
2/8/1994	2.14	3.44	11.8				
2/9/1994				1.45			
4/18/1994	1.13	2.51	9.25				
4/20/1994				<1			
7/13/1994				1.22			
7/14/1994	1.01	3.83	16.3				
10/18/1994				1.3			
10/19/1994	1.08	2.88	13.4				
1/11/1995	1.17	3.09	23.2	1.3			
4/25/1995				1.5			
4/26/1995	1.18	3.36	6.23				
7/10/1995				1.59			
7/11/1995	1.59	3.36	8.51				
11/14/1995	<1	2.94		1.18			
11/15/1995			16.7				
2/19/1996				<1			
2/20/1996	<1	2.99	9.61				
5/21/1996		3.13		1.02			
5/22/1996			9.02				
6/5/1996	<1						
8/19/1996	1.1	3.79	9.98	1.04			
11/5/1996	<1	2.36	13.9	<1			
1/7/1997	1	3.7	18.1	1.1			
4/8/1997	<1	3.1	19.2	1			
7/8/1997	1.1	3.7	19.5	1.1			
10/9/1997	<1	2.2	17.6	<1			
3/19/1998	<1	3.4	26.4	<1			
4/14/1998	<1	3.1	34.2	<1			
9/30/1998		3.1	33.5	1.2			
12/1/1998	1.2	2.49	34	<1			
3/9/1999	1.1	3.1	52.4	1.1			
6/22/1999	1.7	3	39.4				
9/7/1999		2.2	32.8	1.2			
11/2/1999	1.1	2.5	37.1	<1			
1/5/2000	<1	2.6	37.9	1.1			
6/19/2000				<1			
6/20/2000	1.1	2.3	46.7				
9/6/2000	1.2	2.7	26.4	1			
11/28/2000	1.1	2.3	38.1	1.2			
1/22/2001	1.4	2.8	46.5	<1			
4/2/2001	<1	2.8	42.2	1.1			
7/26/2001	1.1	2.8	38.6	1.2			
10/18/2001	1.1	2.5	37.6				

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				1.1			
1/14/2002	1	2.8	38.5				
1/15/2002				<1			
4/29/2002	1.2	3.5	36.7				
4/30/2002				1.1			
9/18/2002	1.2	2.7	39	1.2			
11/19/2002	1.3	3.2	40.9	<1			
3/10/2003	10.5	2.16	49.9	1.27			
4/10/2003	1.36	3.17	49.6	1.28			
7/22/2003	1.29	3.09	35.7	1.03			
11/25/2003	1.55	3.85	46.2				
11/26/2003				1.5			
3/16/2004				1.2			
3/17/2004	1.1	3.3	43				
6/23/2004	1.2	3.3	37	0.96			
9/29/2004	1.1	3.5	37	1			
12/27/2004	<1	3.3	42	<1			
3/30/2005	1	3.3	43	1.2			
6/20/2005	1.2	3.2	37	1.3			
9/27/2005	1.6	3.7	37	1.2			
12/16/2005	1.5	3	39	1.5			
1/9/2006	1.2	3.2	41	4.5			
4/19/2006	1.2	2.9	40	2.7			
9/24/2006	1.1	3.3	45	5.5			
12/5/2006	1.1	3.2	46	2.9			
3/14/2007				2.7			
3/16/2007	1.2	3.3	49				
4/23/2007	1.2	3.2	34				
9/19/2007	1.7	3.2	39	3.2			
10/30/2007	1.7	3.2	43	2.8			
1/23/2008	1.8	3.4	47	2.9			
4/7/2008	1.6	3.3	45				
4/8/2008				1.4			
7/9/2008	1.7	3.2	44	2.3			
12/2/2008	2	3.3	46				
1/7/2009	2	3.8	48	5.7			
6/15/2009	1.3	3.2	44	1.9			
8/26/2009	1.6	3.4	44	2.7			
10/20/2009	1.6	3.6	47	2.9	1.7	3.3	5.8
11/16/2009					2	4	6.3
12/21/2009					2.1	5	7.9
1/25/2010	1.7	3.4	48	2.4	2.3	5.8	9.3
4/13/2010	1.2	3	42	5.6	1.9	7.2	13
7/14/2010				7.3	2.1	7.6	12
7/15/2010	1.6	3.3	47				
10/19/2010	1.3	3.2	46	2.6	2.1	7.6	24
3/3/2011	1.8	3.2	47	15	2.3	20	38
4/19/2011	1.4	3.4	36	3.4	2.3	23	27
7/20/2011	1.1	3.1	39	5.7	2.1	23	24
10/11/2011				14	2.1	22	23
10/12/2011	1.3	3.3	39				
2/20/2012	1.2	3.4	41	1.9	2.2	22	15

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	1.2	3.3	40	1.9	2.1	20	16
9/10/2012	1.3	3.6	38	3.7			
9/14/2012					2.1	19	19
11/26/2012	1.3	3.9	39	12	1.9	18	19
1/10/2013				9.2	2.1	18	16
1/11/2013	1.5	3.8	42				
5/15/2013	1.4	3.6	38	2	2	17	13
7/17/2013	1.2	3.5	38	8.7	1.7	16	15
11/6/2013	1.4	3.5	38	14	1.8	17	18
3/12/2014	1.5	3.5	45	4.5	1.9	18	12
4/21/2014	1.4	3.4	36	2.9	1.9	19	12

Time Series

Constituent: Chromium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.02			<0.02			
11/9/1992	<0.02	<0.02	<0.02				
1/18/1993		<0.02		<0.02			
1/19/1993	<0.02		<0.02				
4/26/1993	<0.02	<0.02	<0.02	<0.02			
7/19/1993	<0.02	<0.02	<0.02				
7/20/1993				<0.02			
10/19/1993	<0.02	<0.02	<0.02				
10/20/1993				<0.02			
2/8/1994	<0.02	<0.02	<0.02				
2/9/1994				<0.02			
4/18/1994	<0.02	<0.02	<0.02				
4/20/1994				<0.02			
7/13/1994				<0.02			
7/14/1994	<0.02	<0.02	<0.02				
10/18/1994				<0.02			
10/19/1994	<0.02	<0.02	<0.02				
1/11/1995	0.02	<0.02	<0.02	<0.02			
4/25/1995				<0.02			
4/26/1995	<0.02	<0.02	<0.02				
5/21/1996		<0.02		<0.02			
5/22/1996			<0.02				
6/5/1996	<0.02						
4/8/1997	<0.02	<0.02	<0.02	<0.02			
4/14/1998	<0.02	<0.02	<0.02	<0.02			
6/22/1999	<0.02	<0.02	<0.02				
6/19/2000				<0.02			
6/20/2000	<0.02	<0.02	<0.02				
7/26/2001	<0.02	<0.02	<0.02	<0.02			
4/29/2002	<0.02	<0.02	<0.02				
4/30/2002				<0.02			
4/10/2003	<0.02	<0.02	<0.02	<0.02			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.01	<0.01	<0.01				
4/7/2008	<0.02	<0.02	<0.02				
4/8/2008				<0.02			
6/15/2009	<0.02	<0.02	<0.02	<0.02			
11/16/2009					<0.01	<0.01	<0.01
12/21/2009					<0.01	<0.01	<0.01
1/25/2010					<0.02	<0.02	<0.02
4/13/2010	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
7/14/2010					<0.02	<0.02	<0.02
10/19/2010					<0.02	<0.02	<0.02
3/3/2011					<0.02	<0.02	<0.02
4/19/2011	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
7/20/2011					<0.02	<0.02	<0.02
10/11/2011					<0.02	<0.02	<0.02
2/20/2012					<0.02	<0.02	<0.02
4/23/2012	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
5/15/2013	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Chromium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Cobalt Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.02			<0.02			
11/9/1992	<0.02	<0.02	<0.02				
10/18/1994				<0.02			
10/19/1994	<0.02	<0.02	<0.02				
1/11/1995	<0.02	<0.02	<0.02	<0.02			
4/25/1995				<0.02			
4/26/1995	<0.02	<0.02	<0.02				
5/21/1996		<0.02		<0.02			
5/22/1996			<0.02				
6/5/1996	<0.02						
4/8/1997	<0.02	<0.02	<0.02	<0.02			
4/14/1998	<0.02	<0.02	<0.02	<0.02			
6/22/1999	<0.02	<0.02	<0.02				
6/19/2000				<0.02			
6/20/2000	<0.02	<0.02	<0.02				
7/26/2001	<0.02	<0.02	<0.02	<0.02			
4/29/2002	<0.02	<0.02	<0.02				
4/30/2002				<0.02			
4/16/2003	<0.02	<0.02	<0.02	<0.02			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.01	<0.01	<0.01				
4/7/2008	<0.02	<0.02	<0.02				
4/8/2008				<0.02			
6/15/2009	<0.02	<0.02	<0.02	<0.02			
11/16/2009					<0.01	0.035	<0.01
12/21/2009					<0.01	0.031	<0.01
1/25/2010					<0.02	0.03	<0.02
4/13/2010	<0.02	<0.02	<0.02	<0.02	<0.02	0.037	<0.02
7/14/2010					<0.02	0.05	<0.02
10/19/2010					<0.02	0.044	<0.02
3/3/2011					<0.02	0.023	<0.02
4/19/2011	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02
7/20/2011					<0.02	0.039	<0.02
10/11/2011					<0.02	0.033	<0.02
2/20/2012					<0.02	<0.02	<0.02
4/23/2012	<0.02	<0.02	<0.02	<0.02	<0.02	0.037	<0.02
5/15/2013	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/21/2014	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Copper Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.01			<0.01			
11/9/1992	<0.01	<0.01	<0.01				
10/18/1994				0.01			
10/19/1994	<0.01	<0.01	<0.01				
1/11/1995	0.02	<0.01	<0.01	<0.01			
4/25/1995				<0.01			
4/26/1995	<0.01	<0.01	<0.01				
5/21/1996		<0.01		<0.01			
5/22/1996			<0.01				
6/5/1996	<0.01						
4/8/1997	<0.01	<0.01	<0.01	<0.01			
4/14/1998	<0.01	<0.01	<0.01	<0.01			
6/22/1999	<0.01	<0.01	<0.01				
6/19/2000				<0.01			
6/20/2000	<0.01	<0.01	<0.01				
7/26/2001	<0.01	<0.01	<0.01	<0.01			
4/29/2002	<0.01	<0.01	<0.01				
4/30/2002				<0.01			
4/10/2003	0.0121	<0.01	<0.01	<0.01			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.01	<0.01	<0.01				
4/7/2008	<0.01	<0.01	<0.01				
4/8/2008				<0.01			
6/15/2009	<0.01	<0.01	<0.01	<0.01			
11/16/2009					<0.01	<0.01	<0.01
12/21/2009					<0.01	<0.01	<0.01
1/25/2010					<0.01	<0.01	<0.01
4/13/2010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/14/2010					<0.01	<0.01	<0.01
10/19/2010					<0.01	<0.01	<0.01
3/3/2011					<0.01	<0.01	<0.01
4/19/2011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/20/2011					<0.01	<0.01	<0.01
10/11/2011					<0.01	<0.01	<0.01
2/20/2012					<0.01	<0.01	<0.01
4/23/2012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
5/15/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022

Time Series

Constituent: Iron Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	5.59			7.74			
11/9/1992	1.16	1.16	0.64				
1/18/1993		1.27		3.71			
1/19/1993	2.41		4.34				
4/26/1993	2.22	1.27	10.7	2.32			
7/19/1993	8.55	7.79	0.49				
7/20/1993				3.65			
10/19/1993	10.3	1.24	0.1				
10/20/1993				8.25			
2/8/1994	1.62	1.19	0.32				
2/9/1994				0.71			
4/18/1994	5.66	10.9	0.38				
4/20/1994				1.02			
7/13/1994				1.42			
7/14/1994	17.2	1.16	0.37				
10/18/1994				57.3			
10/19/1994	9.02	0.95	0.47				
1/11/1995	22.7	1.05	0.36	1.92			
4/25/1995				0.68			
4/26/1995	0.46	3.81	0.56				
7/10/1995				0.879			
7/11/1995	0.7	0.871	0.354				
11/14/1995	1.04	0.51		1.12			
11/15/1995			0.87				
2/19/1996				2.77			
2/20/1996	0.47	0.89	0.37				
5/21/1996		0.85		1.72			
5/22/1996			0.7				
8/5/1996	0.6						
8/19/1996	0.44	1.32	0.47	0.22			
11/5/1996	1.08	3.85	0.27	0.37			
1/7/1997	0.91	3.24	0.33	0.31			
4/8/1997	1.01	4.2	0.07	0.25			
7/8/1997	1.1	8.23	0.05	0.47			
10/9/1997	0.35	4.69	0.19	0.67			
3/19/1998	0.27	1.84	0.18	0.34			
4/14/1998	0.16	2.53	0.1	0.29			
9/30/1998		2.42	0.25	0.18			
12/1/1998	0.45	2.49	0.21	0.37			
3/9/1999	4.36	9.03	0.21	0.98			
6/22/1999	0.76	5.75	0.05				
9/7/1999		4.97	0.19	0.39			
11/2/1999	0.43	1.59	0.15	0.3			
1/5/2000	0.98	6.13	0.359	0.5			
6/19/2000				0.25			
6/20/2000	1.62	13.4	0.6				
9/6/2000	0.23	2.58	0.26	0.17			
11/28/2000	0.14	2.36	0.62	0.43			
1/22/2001	0.96	2.62	0.36	0.34			
4/2/2001	0.75	4.33	0.2	0.06			
7/26/2001	0.58	3.99	0.07	0.14			
10/18/2001	0.82	3.93	0.19				

Time Series

Constituent: Iron Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				0.17			
1/14/2002	0.43	3.15	0.16				
1/15/2002				0.07			
4/29/2002	1.44	4.28	0.02				
4/30/2002				0.16			
9/18/2002	0.144	2.63	0.2	0.113			
11/19/2002	0.354	3.64	0.211	0.185			
3/10/2003	1.38	3.97	<0.02	<0.02			
4/10/2003	0.85	4.1	0.146	0.305			
7/22/2003	0.37	2.53	<0.02	0.164			
11/25/2003	0.41	1.82	0.386				
11/26/2003				0.109			
3/16/2004				0.28			
3/17/2004	0.08	2.4	0.23				
6/23/2004	0.65	1.4	0.059	0.17			
9/29/2004	0.36	2.1	0.28	<0.02			
12/27/2004	0.87	1.6	0.27	0.042			
3/30/2005	0.32	1.3	0.21	<0.02			
6/20/2005	0.12	1.3	0.027	0.26			
9/27/2005	0.11	3.2	0.29	1.1			
12/16/2005	0.22	3.6	0.36	17			
1/9/2006	0.46	2.4	0.26	1			
4/19/2006	0.5	5.5	0.02	8.6			
9/24/2006	0.15	3.4	0.36	3			
12/5/2006	0.23	0.97	0.34	9.1			
3/14/2007				11			
3/16/2007	0.18	0.95	0.046				
4/23/2007	0.56	1.6	<0.02				
9/19/2007	0.24	3.4	0.44	15			
10/30/2007	0.13	1.5	0.22	14			
1/23/2008	0.19	4.5	0.44	5			
4/7/2008	0.45	1.4	0.37				
4/8/2008				37			
7/9/2008	0.23	1.7	0.042	20			
12/2/2008	1.5	1.5	0.58				
1/7/2009	1	2	0.47	7.7			
6/15/2009	0.16	1.6	<0.02	19			
8/26/2009	0.33	1.1	0.26	15			
10/20/2009	0.15	1.1	0.29	7.4	0.27	0.26	72
11/16/2009					0.2	0.23	3
12/21/2009					0.27	0.08	1.8
1/25/2010	0.22	1.9	0.52	21	0.1	0.18	1.2
4/13/2010	0.16	0.78	0.028	13	0.082	0.35	1.8
7/14/2010				10	0.16	15	2.4
7/15/2010	0.32	3.1	0.13				
10/19/2010	0.14	1.8	0.5	8	1.4	18	27
3/3/2011	0.53	1.2	0.45	6.5	0.13	2.7	1.7
4/19/2011	0.21	2.3	0.036	13	0.31	2.4	1.5
7/20/2011	0.21	5	0.21	19	0.08	20	1.8
10/11/2011				22	0.1	22	2.4
10/12/2011	0.21	1.9	0.71				
2/20/2012	0.24	1.8	0.54	58	0.071	1.6	11

Time Series

Constituent: Iron Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	0.38	0.46	0.23	16	0.054	5.2	3.8
9/10/2012	0.46	2.6	0.84	11			
9/14/2012					<0.02	24	2.7
11/26/2012	0.23	1.4	0.67	12	1.4	3.6	20
1/10/2013				8.6	0.064	2.7	12
1/11/2013	0.07	0.45	0.57				
5/15/2013	1.2	1.3	0.033	11	0.092	1.2	20
7/17/2013	0.32	1.4	0.035	14	0.14	6	7.6
11/6/2013	0.27	1.2	0.41	14	0.17	21	3
3/12/2014	0.68	0.68	0.41	36	0.031	2.4	3.5
4/21/2014	1.4	1	0.13	17	0.17	1.3	160

Time Series

Constituent: Lead Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.02			<0.02			
11/9/1992	<0.02	<0.02	<0.02				
1/18/1993		<0.02		<0.02			
1/19/1993	<0.02		<0.02				
4/26/1993	<0.02	<0.02	<0.02	<0.02			
7/19/1993	<0.02	<0.02	<0.02				
7/20/1993				<0.02			
10/19/1993	<0.02	<0.02	<0.02				
10/20/1993				<0.02			
2/8/1994	<0.02	<0.02	<0.02				
2/9/1994				<0.02			
4/18/1994	<0.05	<0.04	<0.04				
4/20/1994				<0.04			
7/13/1994				<0.02			
7/14/1994	<0.02	<0.02	<0.02				
10/18/1994				<0.02			
10/19/1994	<0.02	<0.02	<0.02				
1/11/1995	<0.03	<0.03	<0.03	<0.03			
4/25/1995				<0.03			
4/26/1995	<0.03	<0.03	<0.03				
5/21/1996		<0.03		<0.03			
5/22/1996			<0.03				
6/5/1996	<0.03						
4/8/1997	<0.03	<0.03	<0.03	<0.03			
4/14/1998	<0.03	<0.03	<0.03	<0.03			
6/22/1999	<0.03	<0.03	<0.03				
6/19/2000				<0.03			
6/20/2000	<0.03	<0.03	<0.03				
7/26/2001	<0.03	<0.03	<0.03	<0.03			
4/29/2002	<0.03	<0.03	<0.03				
4/30/2002				<0.03			
4/10/2003	<0.03	<0.03	<0.03	<0.03			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.01	<0.01	<0.01				
4/7/2008	<0.03	<0.03	<0.03				
4/8/2008				<0.03			
6/15/2009	<0.03	<0.03	<0.03	<0.03			
11/16/2009					<0.005	<0.005	<0.005
12/21/2009					<0.005	<0.005	<0.005
1/25/2010					<0.03	<0.03	<0.03
4/13/2010	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
7/14/2010					<0.03	<0.03	<0.03
10/19/2010					<0.03	<0.03	<0.03
3/3/2011					<0.03	<0.03	<0.03
4/19/2011	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
7/20/2011					<0.03	<0.03	<0.03
10/11/2011					<0.03	<0.03	<0.03
2/20/2012					<0.03	<0.03	<0.03
4/23/2012	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
5/15/2013	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03

Time Series

Constituent: Lead Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.038

Time Series

Constituent: Mercury Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.001			<0.001			
11/9/1992	<0.001	<0.001	<0.001				
1/18/1993		<0.001		<0.001			
1/19/1993	<0.001		<0.001				
4/26/1993	<0.001	<0.001	<0.001	<0.001			
7/19/1993	<0.001	<0.001	<0.001				
7/20/1993				<0.001			
10/19/1993	<0.001	<0.001	<0.001				
10/20/1993				<0.001			
2/8/1994	0.001	0.001	<0.001				
2/9/1994				0.001			
4/18/1994	<0.001	<0.001	<0.001				
4/20/1994				<0.001			
7/13/1994				<0.001			
7/14/1994	<0.001	<0.001	<0.001				
10/18/1994				<0.001			
10/19/1994	<0.001	<0.001	<0.001				
1/11/1995	<0.001	<0.001	<0.001	<0.001			
4/25/1995				<0.001			
4/26/1995	<0.001	<0.001	<0.001				
5/21/1996		<0.0005		<0.0005			
5/22/1996			<0.0005				
6/5/1996	<0.001						
4/8/1997	<0.0005	<0.0005	<0.0005	<0.0005			
4/14/1998	<0.001	<0.001	<0.001	<0.001			
6/22/1999	<0.001	<0.001	<0.001				
6/19/2000				<0.001			
6/20/2000	<0.001	<0.001	<0.001				
7/26/2001	<0.001	<0.0005	<0.0005	<0.0005			
4/29/2002	<0.001	<0.001	<0.001				
4/30/2002				<0.001			
4/10/2003	<0.001	<0.001	<0.001	<0.001			
6/23/2004	<0.0002	<0.0002	<0.0002	<0.0002			
3/30/2005	<0.0002	<0.0002	<0.0002	<0.0002			
4/19/2006	<0.0002	<0.0002	<0.0002	<0.0002			
4/23/2007	<0.0002	<0.0002	<0.0002				
4/7/2008	<0.0002	<0.0002	<0.0002				
4/8/2008				<0.0002			
6/15/2009	<0.0002	<0.0002	<0.0002	<0.0002			
11/16/2009					<0.0002	<0.0002	<0.0002
12/21/2009					<0.0002	<0.0002	<0.0002
1/25/2010					<0.0002	<0.0002	<0.0002
4/13/2010	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
7/14/2010					<0.0002	<0.0002	<0.0002
10/19/2010					<0.0002	0.00021	0.00022
3/3/2011					<0.0002	<0.0002	<0.0002
4/19/2011	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
7/20/2011					<0.0002	<0.0002	<0.0002
10/11/2011					<0.0002	<0.0002	<0.0002
2/20/2012					<0.0002	<0.0002	<0.0002
4/23/2012	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
5/15/2013	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Mercury Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Nickel Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	0.02			0.06			
11/9/1992	<0.02	<0.02	<0.02				
10/18/1994				0.02			
10/19/1994	0.03	<0.02	<0.02				
1/11/1995	0.04	<0.02	<0.02	0.06			
4/25/1995				0.05			
4/26/1995	<0.02	<0.02	<0.02				
5/21/1996		<0.02		0.04			
5/22/1996			<0.02				
6/5/1996	<0.02						
4/8/1997	<0.02	<0.02	<0.02	0.03			
4/14/1998	<0.02	<0.02	<0.02	0.03			
6/22/1999	<0.02	<0.02	<0.02				
6/19/2000				0.04			
6/20/2000	<0.02	<0.02	<0.02				
7/26/2001	<0.02	<0.02	<0.02	<0.02			
4/29/2002	<0.02	<0.02	<0.02				
4/30/2002				0.02			
4/10/2003	<0.02	<0.02	<0.02	<0.02			
6/23/2004	<0.005	<0.005	<0.005	0.024			
3/30/2005	<0.005	<0.005	<0.005	0.0051			
4/19/2006	0.0065	0.01	0.0057	0.037			
4/23/2007	<0.005	<0.005	<0.005				
4/7/2008	<0.02	<0.02	<0.02				
4/8/2008				<0.02			
6/15/2009	<0.02	<0.02	<0.02	0.021			
11/16/2009					<0.005	0.03	0.0099
12/21/2009					<0.005	0.027	0.011
1/25/2010					<0.02	0.027	<0.02
4/13/2010	<0.02	<0.02	<0.02	0.066	<0.02	0.03	<0.02
7/14/2010					<0.02	0.028	<0.02
10/19/2010					<0.02	0.025	0.048
3/3/2011					<0.02	0.032	0.068
4/19/2011	<0.02	<0.02	<0.02	<0.02	<0.02	0.034	0.064
7/20/2011					<0.02	0.031	0.041
10/11/2011					<0.02	0.03	0.062
2/20/2012					<0.02	0.025	0.07
4/23/2012	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	0.071
5/15/2013	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.072
4/21/2014	<0.02	<0.02	<0.02	<0.02	<0.02	0.022	0.062

Time Series

Constituent: Nitrate as N (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.05			<0.05			
11/9/1992	<0.05	<0.05	<0.05				
1/18/1993		<0.05		0.05			
1/19/1993	<0.05		<0.05				
4/26/1993	0.11	<0.05	0.1	0.19			
7/19/1993	<0.05	<0.05	<0.05				
7/20/1993				0.11			
10/19/1993	<0.05	0.05	0.06				
10/20/1993				<0.05			
2/8/1994	<0.05	0.16	<0.05				
2/9/1994				0.23			
4/18/1994	0.06	0.209	0.172				
4/20/1994				0.146			
7/13/1994				<0.05			
7/14/1994	<0.05	<0.05	<0.05				
10/18/1994				<0.05			
10/19/1994	<0.05	<0.05	<0.05				
1/11/1995	0.13	<0.05	<0.05	0.27			
4/25/1995				0.26			
4/26/1995	<0.05	0.19	<0.05				
5/21/1996		<0.05		0.16			
5/22/1996			<0.05				
6/5/1996	<0.05						
4/8/1997	<0.05	0.26	0.06	0.11			
4/14/1998	3.22	2.78	3.21	2.96			
6/22/1999	<0.05	0.12	0.05				
6/19/2000				<0.05			
6/20/2000	0.06	0.17	<0.05				
4/29/2002	<0.05	0.1	0.2				
4/30/2002				0.24			
4/10/2003	0.216	0.298	0.135	0.21			
6/23/2004	0.11	0.052	<0.25	0.56			
3/30/2005	0.055	0.24	<0.05	0.061			
4/19/2006	<0.05	0.21	0.27	<0.05			
4/23/2007	<0.05	0.18	0.41				
4/7/2008	0.067	0.22	<0.05				
4/8/2008				<0.05			
6/15/2009	0.14	<0.05	0.07	<0.05			
11/16/2009					0.27	0.069	<0.05
12/21/2009					0.24	0.056	<0.05
1/25/2010					0.15	<0.05	0.073
4/13/2010	<0.05	0.19	0.41	<0.05	0.065	<0.05	<0.05
7/14/2010					<0.05	<0.05	0.077
10/19/2010					<0.05	<0.05	<0.05
3/3/2011					0.056	0.054	0.12
4/19/2011	0.081	0.21	0.47	0.11	0.071	0.062	0.065
7/20/2011					0.059	<0.05	<0.05
10/11/2011					<0.05	<0.05	<0.05
2/20/2012					<0.05	<0.05	<0.05
4/23/2012	<0.05	0.2	<0.05	0.15	0.057	<0.05	0.071
5/15/2013	0.13	0.2	0.44	<0.05	0.054	<0.05	0.063
4/21/2014	0.08	0.19	0.46	0.08	0.051	0.054	0.29

Time Series

Constituent: pH [Field] (su) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	7.2			6.4			
11/9/1992	7	7	7.6				
1/18/1993		7.1		6.9			
1/19/1993	7.4		7.4				
4/26/1993	7.7	7.1	7.3	5.6			
7/19/1993	6.3	7.9	8				
7/20/1993				5.3			
10/19/1993	7.4	7.4	7.4				
10/20/1993				5.6			
2/8/1994	8.4	8	7.4				
2/9/1994				7.6			
4/18/1994	7.1	6.9	7.1				
4/20/1994				7.1			
7/13/1994				6.1			
7/14/1994	8.1	8	8.1				
10/18/1994				5.7			
10/19/1994	6.5	7.5	7.5				
1/11/1995	6.155 (D)	6.275 (D)	6.335 (D)	5.52 (D)			
4/25/1995				6.28			
4/26/1995	6.93	7.45	7.73				
7/10/1995				7.1			
7/11/1995	7.2	7.8	8				
11/14/1995	8.1	8		7.6			
11/15/1995			8.2				
2/19/1996				5.8			
2/20/1996	7.5	7.3	7.3				
5/21/1996		7.2		6			
5/22/1996			7.5				
6/5/1996	7.9						
8/19/1996	6.32	7.09	7.4	4.96			
11/5/1996	5.99	6.96	7.71	5.09			
1/7/1997	5.9	6.52	7.28	5.07			
4/8/1997	6.05	7.07	7.5	5.03			
7/8/1997	6.03	7.4	8.2	6.03			
10/9/1997	6.9	7.4	8.2	7.4			
3/19/1998	7.8	7.1	8	6.6			
4/14/1998	7	7.3	8	6.7			
9/30/1998		7.3	8.3	7.2			
12/1/1998	7.54	8.45	8.5	6.2			
3/9/1999	6.6	7.42	9.75	6.5			
6/22/1999	6.8	7.1	7.7				
9/7/1999		7.3	7.5	5			
11/2/1999	7.1	6.95	8.1	6.39			
1/5/2000	5.69	6.9	7.89	5.58			
6/19/2000				6.35			
6/20/2000	6.39	6.95	7.84				
9/6/2000	6.08	6.71	7.7	6.32			
11/28/2000	7.61	6.87	7.51	7.56			
1/22/2001	6.18	7.03	8.11	4.96			
4/2/2001	7.12	6.8	8.06	5.61			
7/26/2001	7.57	6.91	7.29	7.35			
10/18/2001	7.03	7.6	8.4				

Time Series

Constituent: pH [Field] (su) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				7.1			
1/14/2002	7.07	7.41	8.24				
1/15/2002				6.58			
4/29/2002	6.67	7.08	7.91				
4/30/2002				4.77			
9/18/2002	5.73	6.77	7.94	5.49			
11/19/2002	7.6	7.04	7.59	7.44			
3/10/2003	8.04	7.29	8.1	8.24			
4/10/2003	7.2	7.14	8.01				
7/22/2003	5.47	6.72	7.6	5.22			
11/25/2003	6.5	7.3	8.3				
11/26/2003				4.3			
3/16/2004				5.58			
3/17/2004	7.39	6.96	8.03				
6/23/2004	5.61	7.08	8	5.09			
9/29/2004	5.85	7.24	7.99	5.4			
12/27/2004	6.62	7.18	7.98	5.6			
3/30/2005	7.54	7.29	8.35	7.39			
6/20/2005	7.53	7.07	7.4	6.78			
9/27/2005	6.47	7.22	8.16	7.11			
12/16/2005	7.24	7.4	7.93	7.74			
1/9/2006	6.27	6.57	7.68	5.56			
4/19/2006	7.26	6.94	7.43	7.1			
9/24/2006	5.6	6.85	7.63	5.3			
12/5/2006	5.64	6.62	7.39	5.52			
3/14/2007				6.38			
3/16/2007	6.24	6.49	7.38				
4/23/2007	5.53	6.78	7.3				
9/19/2007	6.38	7.58	8.08	7.15			
10/30/2007	5.42	5.84	6.34	6.44			
1/23/2008	6.05	6.96	7.15	6.15			
4/7/2008	5.37	7.35	7.35				
4/8/2008				6.02			
7/9/2008	7.46	7.57	8.13	7.71			
12/2/2008	6.46	6.65	6.77				
1/7/2009	5.47	6.8	7.28	5.73			
6/15/2009	5.61	6.94	7.36	6.07			
8/26/2009	5.46	6.55	7.22	5.98			
10/20/2009	6.61	7.43	8	6.31	6.49	6.11	6.04
11/16/2009					6.79	5.55	5.6
12/21/2009					6.29	5.99	5.78
1/25/2010	5.84	7.14	7.21	5.8	6.31	5.9	5.87
4/13/2010	5.72	7.1	7.47	5.71	6.43	5.77	5.87
7/14/2010				6.61	6.78	6.4	6.12
7/15/2010	6.21	7.46	7.84				
10/19/2010	5.58	6.8	7.36	6.41	6.24	6	5.35
3/3/2011	6.57	7.45	8.01	6.28	6.82	6.12	6.01
4/19/2011	5.15	6.28	6.74	5.12	4.76	4.46	4.1
7/20/2011	5.9	7.09	7.8	6.34	6.65	6.18	5.54
10/11/2011				4.91	5.29	5.16	4.67
10/12/2011	5.24	6.3	7.13				
2/20/2012	6.16	7.17	7.81	6.49	6.61	5.7	5.53

Time Series

Constituent: pH [Field] (su) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	5.55	6.81	7.15	6.11	6.22	5.5	5.19
9/10/2012	5.25	6.74	7.46	5.96			
9/14/2012					6.12	5.8	5.08
11/26/2012	5.61	6.37	7.03	5.57	6.16	5.33	5.01
1/10/2013				5.77	6.47	5.62	5.43
1/11/2013	7.02	6.98	7.38				
5/15/2013	4.04	6.66	7.46	4.77	5.44	5.22	4.8
7/17/2013	4.63	5.53	6.16	6.11	6.5	6.69	6.37
11/6/2013	5.6	6.43	6.92	5.68	6.57	5.94	5.28
3/12/2014	6.4	7.24	7.81	6.22	6.46	5.48	5.27
4/21/2014	5.8	6.97	7.44	6.2	6.18	5.02	4.92

Time Series

Constituent: Selenium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.005			<0.005			
11/9/1992	<0.005	<0.005	<0.005				
1/18/1993		<0.005		<0.005			
1/19/1993	<0.005		<0.005				
4/26/1993	<0.005	<0.005	<0.005	<0.005			
7/19/1993	<0.005	<0.005	<0.005				
7/20/1993				<0.005			
10/19/1993	<0.005	<0.005	<0.005				
10/20/1993				<0.005			
2/8/1994	<0.005	<0.005	<0.005				
2/9/1994				<0.005			
4/18/1994	<0.005	<0.005	<0.005				
4/20/1994				<0.005			
7/13/1994				<0.005			
7/14/1994	<0.005	<0.005	<0.005				
10/18/1994				<0.005			
10/19/1994	<0.005	<0.005	<0.005				
1/11/1995	<0.005	<0.005	<0.005	<0.005			
4/25/1995				<0.005			
4/26/1995	<0.005	<0.005	<0.005				
5/21/1996		<0.005		<0.005			
5/22/1996			<0.005				
6/5/1996	<0.005						
4/8/1997	<0.005	<0.005	<0.005	<0.005			
4/14/1998	<0.005	<0.005	<0.005	<0.005			
6/22/1999	<0.005	<0.005	<0.005				
6/19/2000				<0.005			
6/20/2000	<0.005	<0.005	<0.005				
7/26/2001	<0.005	<0.005	<0.005	<0.005			
4/29/2002	<0.005	<0.005	<0.005				
4/30/2002				<0.005			
4/10/2003	<0.005	<0.005	<0.005	<0.005			
6/23/2004	<0.001	<0.001	<0.001	<0.001			
3/30/2005	<0.001	<0.001	<0.001	<0.001			
4/19/2006	<0.001	<0.001	<0.001	<0.001			
4/23/2007	<0.001	<0.001	<0.001				
4/7/2008	<0.001	<0.001	<0.001				
4/8/2008				<0.001			
6/15/2009	<0.001	<0.001	<0.001	<0.001			
11/16/2009					<0.005	<0.005	<0.005
12/21/2009					<0.005	<0.005	<0.005
1/25/2010					<0.001	<0.001	<0.001
4/13/2010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/14/2010					<0.001	<0.001	<0.001
10/19/2010					<0.001	<0.001	<0.001
3/3/2011					<0.001	<0.001	<0.001
4/19/2011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/20/2011					<0.001	<0.001	<0.001
10/11/2011					<0.001	<0.001	<0.001
2/20/2012					<0.001	<0.001	<0.001
4/23/2012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
5/15/2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Selenium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0023

Time Series

Constituent: Silver Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.01			<0.01			
11/9/1992	<0.01	<0.01	<0.01				
1/18/1993		<0.01		<0.01			
1/19/1993	<0.01		<0.01				
4/26/1993	<0.01	<0.01	<0.01	<0.01			
7/19/1993	<0.01	<0.01	<0.01				
7/20/1993				<0.01			
10/19/1993	<0.01	<0.01	<0.01				
10/20/1993				<0.01			
2/8/1994	<0.01	<0.01	<0.01				
2/9/1994				<0.01			
4/18/1994	<0.01	<0.01	<0.01				
4/20/1994				<0.01			
7/13/1994				<0.01			
7/14/1994	<0.01	<0.01	<0.01				
10/18/1994				<0.01			
10/19/1994	<0.01	<0.01	<0.01				
1/11/1995	<0.01	<0.01	<0.01	<0.01			
4/25/1995				<0.01			
4/26/1995	<0.01	<0.01	<0.01				
5/21/1996		<0.01		<0.01			
5/22/1996			<0.01				
6/5/1996	<0.01						
4/8/1997	<0.01	<0.01	<0.01	<0.01			
4/14/1998	<0.01	<0.01	<0.01	<0.01			
6/22/1999	<0.01	<0.01	<0.01				
6/19/2000				<0.01			
6/20/2000	<0.01	<0.01	<0.01				
7/26/2001	<0.01	<0.01	<0.01	<0.01			
4/29/2002	<0.01	<0.01	<0.01				
4/30/2002				<0.01			
4/10/2003	<0.01	<0.01	<0.01	<0.01			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.01	<0.01	<0.01				
4/7/2008	<0.01	<0.01	<0.01				
4/8/2008				<0.01			
6/15/2009	<0.01	<0.01	<0.01	<0.01			
11/16/2009					<0.01	<0.01	<0.01
12/21/2009					<0.01	<0.01	<0.01
1/25/2010					<0.01	<0.01	<0.01
4/13/2010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/14/2010					<0.01	<0.01	<0.01
10/19/2010					<0.01	<0.01	<0.01
3/3/2011					<0.01	<0.01	<0.01
4/19/2011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/20/2011					<0.01	<0.01	<0.01
10/11/2011					<0.01	<0.01	<0.01
2/20/2012					<0.01	<0.01	<0.01
4/23/2012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
5/15/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Time Series

Constituent: Silver Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/21/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Time Series

Constituent: Sodium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	3.6			3.44			
11/9/1992	26.4	26.4	144				
1/18/1993		21.2		3.06			
1/19/1993	1.96		95				
4/26/1993	131	355	595	336			
7/19/1993	4.43	26.2	42.8				
7/20/1993				3.19			
10/19/1993	1.53	21.4	52.5				
10/20/1993				4.38			
2/8/1994	1.19	22.1	45.6				
2/9/1994				2.03			
4/18/1994	2	25.9	53				
4/20/1994				2.55			
7/13/1994				4.62			
7/14/1994	2.85	23.9	51.2				
10/18/1994				2.8			
10/19/1994	2.06	21.6	45.9				
1/11/1995	1.83	21.1	92.5	1.91			
4/25/1995				1.95			
4/26/1995	1.16	20.2	34.7				
7/10/1995				2.51			
7/11/1995	1.63	19.5	92.5				
11/14/1995	1.34	22.8		2.29			
11/15/1995			94.5				
2/19/1996				1.58			
2/20/1996	1.1	19.3	42.8				
5/21/1996		22.5		2.5			
5/22/1996			44.5				
6/5/1996	3.49						
8/19/1996	1.43	15	54.4	2.25			
11/5/1996	1.52	16.2	76.2	2.28			
1/7/1997	1.95	26.2	85	1.92			
4/8/1997	1.1	15	67.5	1.95			
7/8/1997	0.93	21.3	73.8	1.03			
10/9/1997	1.91	21.3	87.5	2.91			
3/19/1998	1.15	13	72.5	1.5			
4/14/1998	1.32	20.6	102	2.25			
9/30/1998		9.75	76.3	1.28			
12/1/1998	2.48	16.4	98.1	2.28			
3/9/1999	1.4	18.1	130	2			
6/22/1999	1.3	15.7	97				
9/7/1999		18.8	110	2.39			
11/2/1999	3.13	18.3	110	2.27			
1/5/2000	2.95	21.7	115	2.63			
6/19/2000				3.98			
6/20/2000	4.03	21.4	116				
9/6/2000	3.93	21.9	112	3.66			
11/28/2000	4.46	22.1	120	3.71			
1/22/2001	4.25	23.3	138	3.18			
4/2/2001	3.01	21.1	128	2.78			
7/26/2001	2.76	18.4	103	2.91			
10/18/2001	2.68	19.4	117				

Time Series

Constituent: Sodium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				2.95			
1/14/2002	4.44	20.1	118				
1/15/2002				3.37			
4/29/2002	2.78	23.7	124				
4/30/2002				3.05			
9/18/2002	2.79	20.8	120	3.16			
11/19/2002	4.13	23.2	113	3.24			
3/10/2003	2.6	19.4	136	2.31			
4/10/2003	2.38	19.8	123	2.86			
7/22/2003	2.95	21.7	125	3.44			
11/25/2003	3	23	129				
11/26/2003				3.26			
3/16/2004				2.4			
3/17/2004	2	22	140				
6/23/2004	1.8	22	110	2.7			
9/29/2004	2.3	23	120	2.6			
12/27/2004	2	24	130	2.6			
3/30/2005	1.8	22	140	9.9			
6/20/2005	1.7	23	120	2.7			
9/27/2005	2.3	22	120	2.7			
12/16/2005	2.9	21	130	3.1			
1/9/2006	2.7	24	130	3.8			
4/19/2006	2	23	110	4.8			
9/24/2006	2.3	22	130	9			
12/5/2006	2.2	22	130	4.6			
3/14/2007				3.6			
3/16/2007	1.4	20	130				
4/23/2007	1.4	20	110				
9/19/2007	2.1	25	150	3			
10/30/2007	2.3	23	120	2.9			
1/23/2008	2.1	24	140	5.1			
4/7/2008	1.5	22	140				
4/8/2008				3			
7/9/2008	1.3	19	120	3.1			
12/2/2008	4.3	22	130				
1/7/2009	2.1	25	140	9			
6/15/2009	1.3	19	120	3.5			
8/26/2009	1.4	21	130	4.2			
10/20/2009	1.6	24	140	4.7	7.4	28	9.1
11/16/2009					10	21	8.4
12/21/2009					12	20	9.9
1/25/2010	1.6	22	140	3.7	13	20	12
4/13/2010	1.4	20	140	6	14	19	16
7/14/2010				5.5	16	23	14
7/15/2010	1.5	21	140				
10/19/2010	1.9	22	150	3.3	15	23	14
3/3/2011	1.6	22	150	9.8	18	28	24
4/19/2011	1.5	19	110	4.2	16	34	25
7/20/2011	1.4	20	140	5.3	18	29	20
10/11/2011				9.8	17	27	23
10/12/2011	1.5	21	130				
2/20/2012	1.6	22	150	3.6	21	34	21

Time Series

Constituent: Sodium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	1.7	21	150	3.4	20	34	20
9/10/2012	2	26	160	4.6			
9/14/2012					16	32	19
11/26/2012	2.5	27	150	10	18	32	20
1/10/2013				8.9	17	32	18
1/11/2013	2	24	150				
5/15/2013	1.5	25	150	3.2	16	28	15
7/17/2013	1.5	21	140	6.9	14	8.9	14
11/6/2013	1.8	20	140	11	14	23	18
3/12/2014	1.8	23	160	6.2	15	30	16
4/21/2014	1.8	22	160	3.9	14	33	14

Time Series

Constituent: Specific Conductance [Field] (umhos/cm) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	90			220			
11/9/1992	370	370	490				
1/18/1993		390		200			
1/19/1993	110		390				
4/26/1993	70	310	460	180			
7/19/1993	100	300	300				
7/20/1993				100			
10/19/1993	100	100	100				
10/20/1993				200			
2/8/1994	290	400	510				
2/9/1994				440			
4/18/1994	210	290	310				
4/20/1994				100			
7/13/1994				130			
7/14/1994	70	310	390				
10/18/1994				138			
10/19/1994	80	348	480				
1/11/1995	60	280	410	250			
4/25/1995				158			
4/26/1995	65	285	365				
7/10/1995				140			
7/11/1995	90	320	350				
11/14/1995	110	370		220			
11/15/1995			410				
2/19/1996				172			
2/20/1996	75	355	434				
5/21/1996		287		117			
5/22/1996			346				
6/5/1996	60.3						
8/19/1996	64.3	347	429	133			
11/5/1996	77	337	466	135			
1/7/1997	74	345	445	151			
4/8/1997	70	351	458	170			
7/8/1997	81	384	535	131			
10/9/1997	86	333	505	96			
3/19/1998	78	353	554	164			
4/14/1998	82	342	569	163			
9/30/1998		242	595	60			
12/1/1998	93	195	501	93			
3/9/1999	71	358	607	164			
6/22/1999	70	295	576				
9/7/1999		394	685	152			
11/2/1999	145	332	567	142			
1/5/2000	36	377	640	183			
6/19/2000				135			
6/20/2000	84	339	601				
9/6/2000	84	287	502	93			
11/28/2000	81	263	486	89			
1/22/2001	86	343	593	156			
4/2/2001	90	412	713	185			
7/26/2001	68	278	490	94			
10/18/2001	96.6	353.3	605				

Time Series

Constituent: Specific Conductance [Field] (umhos/cm) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				83.3			
1/14/2002	108	379	1038				
1/15/2002				158			
4/29/2002	60	305	492				
4/30/2002				118			
9/18/2002	945	421	380	815			
11/19/2002	90	375	596	146			
3/10/2003	65	311	555	136			
4/10/2003	40	270	500	100			
7/22/2003	76	369	589	142			
11/25/2003	143	640	690				
11/26/2003				242			
3/16/2004				208			
3/17/2004	140	474	823				
6/23/2004	73	186	570	145			
9/29/2004	80	360	570	130			
12/27/2004	49	250	421	80			
3/30/2005	78.7	353	633	148			
6/20/2005	52.1	215	208	54			
9/27/2005	87.1	341	560	75.7			
12/15/2005	88	366	577	74			
1/9/2006	33	140	239	52			
4/19/2006	69	322	576	101			
9/24/2006	814	397	691	262			
12/5/2006	66	318	547	138			
3/14/2007				148			
3/16/2007	63	377	655				
4/23/2007	67	382	629				
9/19/2007	75	331	598	87			
10/30/2007	88	261	560	94			
1/23/2008	70	352	595	125			
4/7/2008	61	351	634				
4/8/2008				72			
7/9/2008	63	371	602	108			
12/2/2008	98	286	476				
1/7/2009	82	422	688	315			
6/15/2009	64	374	653	138			
8/26/2009	71	381	650	212			
10/20/2009	65	282	471	171	210	306	329
11/16/2009					373	503	510
12/21/2009					287	364	337
1/25/2010	101	452	754	188	336	452	458
4/13/2010	63	358	629	365	300	491	764
7/14/2010				279	312	615	436
7/15/2010	64	370	649				
10/19/2010	65	355	633	95	308	568	406
3/3/2011	69	376	691	312	355	605	703
4/19/2011	58	355	619	102	329	634	624
7/20/2011	73	413	727	203	386	734	650
10/11/2011				392	380	737	632
10/12/2011	76	411	721				
2/20/2012	51	294	552	68	291	511	442

Time Series

Constituent: Specific Conductance [Field] (umhos/cm) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	59	339	649	80	329	588	501
9/10/2012	69	377	669	133			
9/14/2012					345	647	596
11/26/2012	75	405	658	409	338	587	599
1/10/2013				340	326	587	562
1/11/2013	68	394	674				
5/15/2013	56	352	606	98	301	532	473
7/17/2013	61	347	568	316	297	564	474
11/6/2013	86	431	753	567	370	745	698
3/12/2014	70	384	728	229	333	649	526
4/21/2014	67	378	721	117	319	653	494

Time Series

Constituent: Thallium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.25			<0.25			
11/9/1992	<0.25	<0.25	<0.25				
10/18/1994				<0.25			
10/19/1994	<0.25	<0.25	<0.25				
1/11/1995	<0.25	<0.25	<0.25	<0.25			
4/25/1995				<0.25			
4/26/1995	<0.25	<0.25	<0.25				
5/21/1996		<0.25		<0.25			
5/22/1996			<0.25				
6/5/1996	<0.25						
4/8/1997	<0.25	<0.25	<0.25	<0.25			
4/14/1998	<0.25	<0.25	<0.25	<0.25			
6/22/1999	<0.25	<0.25	<0.25				
6/19/2000				<0.25			
6/20/2000	<0.25	<0.25	<0.25				
7/26/2001	<0.25	<0.25	<0.25	<0.25			
4/29/2002	<0.25	<0.25	<0.25				
4/30/2002				<0.25			
4/10/2003	<0.25	<0.25	<0.25	<0.25			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.002	<0.002	<0.002				
4/7/2008	<0.002	<0.002	<0.002				
4/8/2008				<0.002			
6/15/2009	<0.002	<0.002	<0.002	<0.002			
11/16/2009					<0.01	<0.01	<0.01
12/21/2009					<0.01	<0.01	<0.01
1/25/2010					<0.002	<0.002	<0.002
4/13/2010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
7/14/2010					<0.002	<0.002	<0.002
10/19/2010					<0.002	<0.002	<0.002
3/3/2011					<0.002	<0.002	<0.002
4/19/2011	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
7/20/2011					<0.002	<0.002	<0.002
10/11/2011					<0.002	<0.002	<0.002
2/20/2012					<0.002	<0.002	<0.002
4/23/2012	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
5/15/2013	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/21/2014	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	82			149			
11/9/1992	52	248	359				
1/18/1993		239		155			
1/19/1993	80		313				
4/26/1993	69	223	374	193			
7/19/1993	124	325	333				
7/20/1993				218			
10/19/1993	64	247	292				
10/20/1993				158			
2/8/1994	60	228	248				
2/9/1994				138			
4/18/1994	24	188	256				
4/20/1994				110			
7/13/1994				90			
7/14/1994	4	200	234				
10/18/1994				96			
10/19/1994	52	248	270				
1/11/1995	48	216	296	110			
4/25/1995				126			
4/26/1995	42	198	251				
7/10/1995				98			
7/11/1995	40	224	229				
11/14/1995	68	208		117			
11/15/1995			476				
2/19/1996				125			
2/20/1996	46	220	248				
5/21/1996		250		150			
5/22/1996			294				
6/5/1996	34						
8/19/1996	42	226	264	137			
11/5/1996	30	188	258	90			
1/7/1997	48	38	280	160			
4/8/1997	38	176	254	94			
7/8/1997	66	234	318	88			
10/9/1997	34	162	306	60			
3/19/1998	98	256	344	178			
4/14/1998	12	412	382	94			
9/30/1998		147	416	70			
12/1/1998	308	134	307	39			
3/9/1999	122	158	236	66			
6/22/1999	56	214	379				
9/7/1999		226	367	88			
11/2/1999	45	190	348	98			
1/5/2000	71	230	365	132			
6/19/2000				40			
6/20/2000	24	164	328				
9/6/2000	68	256	432	72			
11/28/2000	80	200	348	92			
1/22/2001	88	232	384	184			
4/2/2001	88	256	392	132			
7/26/2001	72	224	360	84			
10/18/2001	124	224	380				

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				100			
1/14/2002	44	204	320				
1/15/2002				64			
4/29/2002	84	244	356				
4/30/2002				120			
9/18/2002	44	228	308	44			
11/19/2002	32	188	328	84			
3/10/2003	48	248	356	96			
4/10/2003	52	228	360	112			
7/22/2003	48	252	356	120			
11/25/2003	28	216	324				
11/26/2003				300			
3/16/2004				340			
3/17/2004	80	264	920				
6/23/2004	92	400	484	88			
9/29/2004	45	220	330	76			
12/27/2004	31	200	340	54			
3/30/2005	60	220	350	120			
6/20/2005	83	240	360	64			
9/27/2005	67	220	330	37			
12/16/2005	61	220	340	42			
1/9/2006	45	200	350	93			
4/19/2006	45	220	350	80			
9/24/2006	62	220	350	140			
12/5/2006	87	260	350	110			
3/14/2007				390			
3/16/2007	26	210	320				
4/23/2007	47	220	290				
9/19/2007	37	220	340	33			
10/30/2007	24	220	350	18			
1/23/2008	<10	220	360	92			
4/7/2008	53	210	400				
4/8/2008				74			
7/9/2008	28	210	350	76			
12/2/2008	79	230	380				
1/7/2009	49	230	380	200			
6/15/2009	46	210	330	82			
8/26/2009	20	230	340	140			
10/20/2009	39	210	380	100	130	230	260
11/16/2009					910	260	250
12/21/2009					150	290	270
1/25/2010	20	190	350	87	150	290	360
4/13/2010	<10	190	330	230	150	290	510
7/14/2010				180	170	390	280
7/15/2010	39	240	350				
10/19/2010	65	230	400	72	200	410	270
3/3/2011	52	240	380	190	200	400	460
4/19/2011	<10	180	350	54	150	400	390
7/20/2011	32	220	360	100	200	440	380
10/11/2011				200	200	440	370
10/12/2011	35	240	340				
2/20/2012	35	220	370	53	210	410	360

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	45	230	400	71	210	410	350
9/10/2012	57	230	380	96			
9/14/2012					210	440	420
11/26/2012	59	260	380	290	230	400	430
1/10/2013				190	190	380	380
1/11/2013	29	240	370				
5/15/2013	63	250	380	84	210	400	380
7/17/2013	54	220	350	180	160	370	320
11/6/2013	55	230	360	340	190	430	410
3/12/2014	28	250	390	150	170	430	340
4/21/2014	77	220	360	91	180	420	300

Time Series

Constituent: Total Organic Carbon [TOC] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	4.13			1.67			
11/9/1992	1.13	1.13	<1				
1/18/1993		<1		1.39			
1/19/1993	1.11		<1				
4/26/1993	3.38	1.37	1.63	2.13			
7/19/1993	3.6	1.75	1.84				
7/20/1993				1.64			
10/19/1993	2.07	<1	<1				
10/20/1993				2.96			
2/8/1994	1	<1	<1				
2/9/1994				1			
4/18/1994	5.6	5.54	7.99				
4/20/1994				1.59			
7/13/1994				1.71			
7/14/1994	1.41	<1	<1				
10/18/1994				3.24			
10/19/1994	4.85	3.96	2.87				
1/11/1995	2.22	1.61	<1	1.44			
4/25/1995				1.13			
4/26/1995	1.45	2.92	3.33				
7/10/1995				3.59			
7/11/1995	2.67	4.93	2.83				
11/14/1995	2.47	2.66		3.14			
11/15/1995			1.72				
2/19/1996				1.86			
2/20/1996	1.84	1.83	2.61				
5/21/1996		1.39		1.36			
5/22/1996			2.28				
6/5/1996	1.31						
8/19/1996	3	2.86	3.55	3.07			
11/5/1996	1.93	1.66	1.88	1.62			
1/7/1997	<1	<1	<1	<1			
4/8/1997	2.6	2.2	2.5	1.4			
7/8/1997	1.3	1.7	2.1	1.6			
10/9/1997	1.1	1	1.4	1			
3/19/1998	1.4	3.2	3.4	1.7			
4/14/1998	<1	<1	<1	<1			
9/30/1998		2.4	2.7	2			
12/1/1998	2.5	4.5	6	2.9			
3/9/1999	<1	2.6	3.3	1.2			
6/22/1999	1.8	3	5				
9/7/1999		<1	1	1			
11/2/1999	4.1	4.8	6.6	3.1			
1/5/2000	2.8	1.7	3.2	2.3			
6/19/2000				<1			
6/20/2000	<1	<1	<1				
9/6/2000	<1	<1	<1	<1			
11/28/2000	<1	<1	<1	<1			
1/22/2001	1	1	<1	<1			
4/2/2001	2.3	3.8	7.8	1.7			
7/26/2001	2	1.7	1.9	2.3			
10/18/2001	<1	<1	<1				

Time Series

Constituent: Total Organic Carbon [TOC] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				3.9			
1/14/2002	1.2	<1	<1				
1/15/2002				<1			
4/29/2002	1.5	2.4	3.8				
4/30/2002				1.5			
9/18/2002	<1	<1	<1	<1			
11/19/2002	6.2	<1	1	1.6			
3/10/2003	<1	<1	1.01	1.64			
4/10/2003	2.15	<1	1.3	1.03			
7/22/2003	1.14	5.52	<1	9.68			
11/25/2003	2.3	<2	<2				
11/26/2003				<2			
3/16/2004				2.8			
3/17/2004	2.4	<1	<1				
6/23/2004	1.7	<1	<1	2.5			
9/29/2004	<1	<1	<1	1.1			
12/27/2004	10	26	38	14			
3/30/2005	<1	<1	<1	<1			
6/20/2005	<1	<1	<1	<1			
9/27/2005	<1	<1	<1	<1			
12/16/2005	<1	<1	<1	1.3			
1/9/2006	<1	<1	<1	<1			
4/19/2006	<1	<1	<1	<1			
9/24/2006	<1	<1	<1	<1			
12/5/2006	<1	<1	<1	1.1			
3/14/2007				<1			
3/16/2007	<1	<1	<1				
4/23/2007	<1	<1	<1				
9/19/2007	<1	<1	<1	1.3			
10/30/2007	<1	<1	<1	1			
1/23/2008	<1	<1	<1	<1			
4/7/2008	<1	<1	<1				
4/8/2008				2.4			
7/9/2008	<1	<1	<1	16			
12/2/2008	1.1	<1	<1				
1/7/2009	1.1	<1	<1	1.3			
6/15/2009	1	<1	<1	2.1			
8/26/2009	<1	<1	<1	1.4			
10/20/2009	<1	<1	<1	<1	<1	1.2	5.9
11/16/2009					1	1.5	1.7
12/21/2009					1.1	1.5	1.6
1/25/2010	<1	<1	<1	1.4	1.2	1.4	1.9
4/13/2010	<1	<1	<1	1.7	1.1	1.5	2.5
7/14/2010				1.8	1.9	1.8	1.9
7/15/2010	1.6	1.1	1.4				
10/19/2010	1.3	1	1.1	1.5	1.5	2.2	7.5
3/3/2011	<1	<1	1	1.5	1.3	1.6	1.8
4/19/2011	1.3	<1	1	1.4	1.3	1.8	1.8
7/20/2011	1.1	<1	<1	1.3	<1	1.7	1.7
10/11/2011				1.5	1	1.6	1.6
10/12/2011	1.3	<1	<1				
2/20/2012	<1	<1	<1	2.7	1.1	1.3	1.6

Time Series

Constituent: Total Organic Carbon [TOC] (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	<1	<1	<1	1.6	1	1.5	1.5
9/10/2012	1	<1	<1	1.2			
9/14/2012					<1	1.6	1.9
11/26/2012	1.1	<1	1.1	1.6	1.5	1.7	2.8
1/10/2013				1.2	1	1.4	1.9
1/11/2013	<1	<1	<1				
5/15/2013	<1	1	<1	1.4	1.1	1.5	2.2
7/17/2013	1.4	1.1	1.1	1.9	1.3	1.8	2
11/6/2013	<1	<1	<1	1.4	<1	1.4	1.4
3/12/2014	<1	<1	<1	1.2	<1	<1	1.3
4/21/2014	1	<1	<1	1.2	<1	1.2	2.6

Time Series

Constituent: Total Organic Halides (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.01			<0.01			
11/9/1992	<0.01	<0.01	<0.01				
1/18/1993		<0.01		0.02			
1/19/1993	<0.01		<0.01				
4/26/1993	<0.01	<0.01	<0.01	<0.01			
7/19/1993	<0.01	0.01	<0.01				
7/20/1993				<0.01			
10/19/1993	<0.01	<0.01	<0.01				
10/20/1993				<0.01			
2/8/1994	<0.01	<0.01	<0.01				
2/9/1994				<0.01			
4/18/1994	<0.01	<0.01	<0.01				
4/20/1994				<0.01			
7/13/1994				0.37			
7/14/1994	0.33	0.16	0.27				
10/18/1994				<0.01			
10/19/1994	<0.01	<0.01	<0.01				
1/11/1995	<0.01	<0.01	<0.01	<0.01			
4/25/1995				<0.01			
4/26/1995	<0.01	<0.01	<0.01				
7/10/1995				<0.01			
7/11/1995	<0.01	<0.01	<0.01				
11/14/1995	<0.01	<0.01		<0.01			
11/15/1995			<0.01				
2/19/1996				<0.01			
2/20/1996	<0.01	<0.01	<0.01				
5/21/1996		<0.01		<0.01			
5/22/1996			<0.01				
6/5/1996	<0.01						
8/19/1996	<0.01	<0.01	<0.01	<0.01			
11/5/1996	0.11	<0.01	<0.01	<0.01			
1/7/1997	<0.01	1.03	0.02	<0.01			
4/8/1997	<0.01	<0.01	<0.01	<0.01			
7/8/1997	<0.01	<0.01	<0.01	<0.01			
10/9/1997	<0.01	0.02	0.03	0.01			
3/19/1998	0.02	<0.01	0.03	0.05			
4/14/1998	<0.01	<0.01	<0.01	<0.01			
9/30/1998		0.01	<0.01	<0.01			
12/1/1998	<0.01	<0.01	0.03	<0.01			
3/9/1999	0.01	0.01	<0.01	<0.01			
6/22/1999	0.08	0.12	0.09				
9/7/1999		<0.01	<0.01	0.02			
11/2/1999	<0.01	<0.01	0.02	<0.01			
1/5/2000	0.02	0.01	0.01	<0.01			
6/19/2000				<0.01			
6/20/2000	<0.01	0.03	0.02				
9/6/2000	0.117	0.08	0.08	0.06			
11/28/2000	0.03	0.02	0.03	0.04			
1/22/2001	<0.01	0.01	<0.01	<0.01			
4/2/2001	<0.01	<0.01	<0.01	<0.01			
7/26/2001	<0.01	<0.01	<0.01	<0.01			
10/18/2001	<0.01	<0.01	<0.01				

Time Series

Constituent: Total Organic Halides (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
10/19/2001				0.03			
1/14/2002	<0.01	<0.01	<0.01				
1/15/2002				<0.01			
4/29/2002	<0.01	<0.01	<0.01				
4/30/2002				<0.01			
9/18/2002	<0.01	<0.01	<0.01	0.13			
11/19/2002	<0.01	0.1	<0.01	0.08			
3/10/2003	<0.01	<0.01	<0.01	<0.01			
4/10/2003	<0.01	<0.01	<0.01	<0.01			
7/22/2003	0.01	0.014	0.012	<0.01			
11/25/2003	0.015	<0.01	<0.01				
11/26/2003				0.061			
3/16/2004				<0.01			
3/17/2004	<0.01	<0.01	<0.01				
6/23/2004	<0.01	<0.01	<0.01	<0.01			
9/29/2004	<0.01	<0.01	<0.01	<0.01			
12/27/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
6/20/2005	<0.01	<0.01	<0.01	0.014			
9/27/2005	0.043	0.042	0.086	0.012			
12/16/2005	0.033	<0.01	0.058	0.074			
1/9/2006	0.123	0.081	0.051	0.105			
4/19/2006	0.037	<0.01	<0.01	0.037			
9/24/2006	0.042	0.064	0.034	<0.01			
12/5/2006	<0.01	0.028	<0.01	<0.01			
3/14/2007				<0.01			
3/16/2007	<0.01	<0.01	<0.01				
4/23/2007	<0.01	<0.01	<0.01				
9/19/2007	<0.01	<0.01	0.012	<0.01			
10/30/2007	<0.01	<0.01	0.014	<0.01			
1/23/2008	<0.01	<0.01	0.03	0.012			
4/7/2008	<0.01	<0.01	<0.01				
4/8/2008				0.019			
7/9/2008	<0.01	<0.01	0.026	<0.01			
12/2/2008	<0.01	<0.01	<0.01				
1/7/2009	<0.01	<0.01	<0.01	0.01			
6/15/2009	<0.01	<0.01	<0.01	<0.01			
8/26/2009	<0.01	0.015	0.013	<0.01			
10/20/2009	<0.01	<0.01	0.034	<0.01	<0.01	<0.01	0.012
11/16/2009					<0.01	0.012	0.017
12/21/2009					<0.01	<0.01	0.013
1/25/2010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014
4/13/2010	<0.01	<0.01	0.014	0.011	<0.01	<0.01	0.013
7/14/2010				<0.01	<0.01	<0.01	0.017
7/15/2010	<0.01	<0.01	0.027				
10/19/2010	0.012	<0.01	0.075	<0.01	<0.01	0.015	0.031
3/3/2011	<0.01	0.014	0.011	0.012	0.012	0.014	0.022
4/19/2011	<0.01	0.011	0.015	<0.01	0.02	<0.01	<0.01
7/20/2011	<0.01	<0.01	0.017	0.019	0.015	0.034	0.028
10/11/2011				0.021	<0.01	0.01	0.02
10/12/2011	<0.01	0.01	0.013				
2/20/2012	<0.01	<0.01	<0.01	0.012	0.034	0.022	0.019

Time Series

Constituent: Total Organic Halides (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
4/23/2012	0.012	<0.01	0.015	<0.01	<0.01	0.015	0.022
9/10/2012	<0.01	<0.01	0.015	<0.01			
9/14/2012					<0.01	0.011	0.01
11/26/2012	0.012	<0.01	0.016	0.015	<0.01	0.027	0.055
1/10/2013				0.01	<0.01	0.015	0.021
1/11/2013	<0.01	<0.01	0.023				
5/15/2013	<0.01	<0.01	<0.01	<0.01	0.013	0.015	0.02
7/17/2013	<0.01	<0.01	0.018	0.013	<0.01	0.019	0.044
11/6/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/12/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.045

Time Series

Constituent: Vanadium Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	<0.25			<0.25			
11/9/1992	<0.25	<0.25	<0.25				
10/18/1994				<0.25			
10/19/1994	<0.25	<0.25	<0.25				
1/11/1995	<0.25	<0.25	<0.25	<0.25			
4/25/1995				<0.25			
4/26/1995	<0.25	<0.25	<0.25				
5/21/1996		<0.25		<0.25			
5/22/1996			<0.25				
6/5/1996	<0.25						
4/8/1997	<0.25	<0.25	<0.25	<0.25			
4/14/1998	<0.25	<0.25	<0.25	<0.25			
6/22/1999	<0.25	<0.25	<0.25				
6/19/2000				<0.25			
6/20/2000	<0.25	<0.25	<0.25				
7/26/2001	<0.25	<0.25	<0.25	<0.25			
4/29/2002	<0.25	<0.25	<0.25				
4/30/2002				<0.25			
4/10/2003	<0.25	<0.25	<0.25	<0.25			
6/23/2004	<0.01	<0.01	<0.01	<0.01			
3/30/2005	<0.01	<0.01	<0.01	<0.01			
4/19/2006	<0.01	<0.01	<0.01	<0.01			
4/23/2007	<0.01	<0.01	<0.01				
4/7/2008	<0.25	<0.25	<0.25				
4/8/2008				<0.25			
6/15/2009	<0.25	<0.25	<0.25	<0.25			
11/16/2009					<0.01	<0.01	<0.01
12/21/2009					<0.01	<0.01	<0.01
1/25/2010					<0.25	<0.25	<0.25
4/13/2010	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
7/14/2010					<0.25	<0.25	<0.25
10/19/2010					<0.25	<0.25	<0.25
3/3/2011					<0.25	<0.25	<0.25
4/19/2011	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
7/20/2011					<0.25	<0.25	<0.25
10/11/2011					<0.25	<0.25	<0.25
2/20/2012					<0.25	<0.25	<0.25
4/23/2012	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
5/15/2013	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
4/21/2014	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25

Time Series

Constituent: Zinc Total (mg/L) Analysis Run 5/23/2014 9:24 AM

Facility: Green Valley Client: Green Valley LF Data File: GREENVALLEY

	MW-1	MW-1A	MW-1B	MW-3	MW-28E	MW-28D	MW-28C
9/25/1992	0.11			0.15			
11/9/1992	0.01	0.01	0.02				
10/18/1994				<0.01			
10/19/1994	0.02	<0.01	<0.01				
1/11/1995	0.07	<0.01	<0.01	0.07			
4/25/1995				0.07			
4/26/1995	<0.01	0.02	0.1				
5/21/1996		0.01		0.05			
5/22/1996			<0.01				
6/5/1996	<0.01						
4/8/1997	0.01	<0.01	<0.01	0.04			
4/14/1998	0.02	<0.01	<0.01	0.03			
6/22/1999	<0.01	<0.01	<0.01				
6/19/2000				0.03			
6/20/2000	0.07	<0.01	<0.01				
7/26/2001	0.03	0.02	0.03	0.04			
4/29/2002	0.01	<0.01	0.01				
4/30/2002				0.04			
4/10/2003	0.0132	<0.01	0.0885	0.0311			
6/23/2004	<0.02	<0.02	<0.02	0.044			
3/30/2005	<0.02	<0.02	<0.02	0.026			
4/19/2006	<0.02	<0.02	<0.02	0.034			
4/23/2007	<0.02	<0.02	<0.02				
4/7/2008	<0.01	<0.01	<0.01				
4/8/2008				<0.01			
6/15/2009	<0.01	<0.01	<0.01	0.018			
11/16/2009					<0.02	0.038	<0.02
12/21/2009					<0.02	0.027	<0.02
1/25/2010					<0.01	0.033	<0.01
4/13/2010	<0.01	<0.01	<0.01	0.06	<0.01	0.034	0.012
7/14/2010					<0.01	0.024	0.013
10/19/2010					<0.01	0.019	0.037
3/3/2011					<0.01	0.036	0.052
4/19/2011	<0.02	<0.01	<0.01	0.018	<0.01	0.031	0.041
7/20/2011					<0.01	0.021	0.025
10/11/2011					<0.01	0.02	0.043
2/20/2012					<0.01	0.024	0.059
4/23/2012	<0.01	<0.01	<0.01	0.011	<0.01	0.032	0.062
5/15/2013	<0.01	<0.01	<0.01	0.012	<0.01	0.017	0.069
4/21/2014	<0.01	<0.01	<0.01	0.019	<0.01	0.02	0.099

APPENDIX C
LABORATORY ANALYTICAL REPORT
&
FIELD INFORMATION LOGS

Pace Analytical®

Pace Analytical Services, Inc.

Quality Assurance Report # 66157

Pace Analytical Services, INC.
7901 W. Morris St.
Indianapolis, IN 46231
(317)243-8304

Visit us at : www.pacelabs.com

Report To:

GREEN VALLEY LANDFILL

Po Box 9

Rush, KY 41168

Attn : Daniel Deborde

Submitter/Project Information

Submitter : KY-ALLIED-GREEN VALLEY LANDFILL

Project : GROUNDWATER - GREEN VALLEY LANDFILL

Christopher Boyle - Project Manager
chris.boyle@heritage-enviro.com
(317)390-3128

Pace Analytical®

Pace Analytical Services, Inc.

Sample Summary

COC ID# : KENVIRONS

COC Doc # : 01103368

Date/Time Sampled	Date Complete	LabSampleID	Client SampleID
04/21/2014 13:05:00	05/16/2014	AA14657	SW-3

COC Doc # : 01103369

Date/Time Sampled	Date Complete	LabSampleID	Client SampleID
04/21/2014 11:50:00	05/16/2014	AA14647	MW-1
04/21/2014 11:10:00	05/16/2014	AA14648	MW-1A
04/21/2014 12:20:00	05/16/2014	AA14649	MW-1B
04/21/2014 12:55:00	05/16/2014	AA14650	MW-3
04/21/2014 15:15:00	05/16/2014	AA14651	MW-28C
04/21/2014 14:05:00	05/16/2014	AA14652	MW-28D
04/21/2014 14:35:00	05/16/2014	AA14653	MW-28E
04/21/2014 10:55:00	05/16/2014	AA14654	FB
	05/16/2014	AA14655	TRIP BLANK

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14647
	Completed	**PO Number**
	16-MAY-14	4063197
	Printed	**Sampled**
	16-MAY-14	21-APR-14 11:50

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: MW-1
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: 8000-8086

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 17:10 | Instrument: IC | Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	1.4	0.25	mg/L

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 17:10 | Instrument: IC | Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	0.08	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM | Analysis Date: 24-APR-14 19:25 | Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 NELAC:Y

Analyst: A. CORNWELL | Analysis Date: 24-APR-14 10:30 | Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	77	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A NELAC:Y

Analyst: T. DRIGGERS | Analysis Date: 02-MAY-14 13:00 | Instrument: TOC | Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	1.0	1.0	mg/L

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Sample ID: AA14647 MW-1

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	BDL	0.010	mg/L

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 21:45 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 21:45 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.031	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Sample ID: AA14647 MW-1

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	1.4	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 25-APR-14 18:55 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0010	mg/L

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Sample ID: AA14647 MW-1

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	1.8	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 21:45 Instrument: ICP/MS Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:24 Instrument: ICP Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 08:00 Instrument: PREP Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 12:17 Instrument: CVAA Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 24-APR-14 16:31 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14647 MW-1

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L

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Sample ID: AA14647 MW-1

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	103		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	102		% Rec
DIBROMOFLUOROMETHANE	94		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND Analysis Date: 23-APR-14 Instrument: PREP Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	33.56		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ Analysis Date: 23-APR-14 17:45 Instrument: GC/ECD Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
----------			
(1) 2-CHLOROBIPHENYL	138.2		% Rec

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 11:50 Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
ELEVATION OF GROUNDWATER SURFACE	614.11		Feet/MSL
ELEVATION OF MEASURING PT (TOP OF CASING FT. MSL)	617.80		Feet/MSL
DEPTH TO WATER (FT. BELOW MEASURING POINT)	3.69		ft

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 11:50 Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	5.80	0.1	Std. Units

FIELD SPECIFIC CONDUCTANCE SW846-9050A NELAC:Y

Analysis Date: 21-APR-14 11:50 Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14647 MW-1

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	67	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000 NELAC:N

Analysis Date: 21-APR-14 11:50 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	8.99		Degrees C

TURBIDITY (NEPHELOMETRIC) EPA 180.1 NELAC:Y

Analyst: J. SMITH Analysis Date: 23-APR-14 15:15 Test: G602.5.0

Parameter	Result	Det. Limit	Units
TURBIDITY	18		ntu

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Pace Analytical Services, INC. certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Package # 66157

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14648
	Completed 16-MAY-14	PO Number 4063197
	Printed 16-MAY-14	Sampled 21-APR-14 11:10

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: MW-1A
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: 8000-2931

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST Analysis Date: 22-APR-14 17:28 Instrument: IC Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	3.4	0.25	mg/L

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST Analysis Date: 22-APR-14 17:28 Instrument: IC Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	0.19	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM Analysis Date: 24-APR-14 19:25 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 NELAC:Y

Analyst: A. CORNWELL Analysis Date: 24-APR-14 10:30 Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	220	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A NELAC:Y

Analyst: D. DICKERSON Analysis Date: 23-APR-14 12:51 Instrument: TOC Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	BDL	1.0	mg/L

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Sample ID: AA14648 MW-1A

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	BDL	0.010	mg/L

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:10 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:10 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.053	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

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Sample ID: AA14648 MW-1A

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	1.0	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:27 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:10 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0010	mg/L

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Sample ID: AA14648 MW-1A

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:27 | Instrument: ICP | Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:27 | Instrument: ICP | Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	22	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE | Analysis Date: 24-APR-14 22:10 | Instrument: ICP/MS | Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:27 | Instrument: ICP | Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:27 | Instrument: ICP | Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 08:00 | Instrument: PREP | Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 12:19 | Instrument: CVAA | Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 24-APR-14 16:57 | Instrument: GC/MS VOA | Test: O510.6.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14648 MW-1A

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L

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Sample ID: AA14648 MW-1A

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	100		% Rec
DIBROMOFLUOROMETHANE	98		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND | Analysis Date: 23-APR-14 | Instrument: PREP | Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	34.32		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ | Analysis Date: 23-APR-14 17:45 | Instrument: GC/ECD | Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
(1) 2-CHLOROBIPHENYL	260.6		% Rec

Surrogate recovery affected by interferences in sample.

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 11:10 | Instrument: FIELD | Test: G600.0.0

Parameter	Result	Det. Limit	Units
ELEVATION OF GROUNDWATER SURFACE	617.20		Feet/MSL
ELEVATION OF MEASURING PT (TOP OF CASING FT. MSL)	618.60		Feet/MSL
DEPTH TO WATER (FT. BELOW MEASURING POINT)	1.40		ft

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 11:10 | Instrument: FIELD | Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.97	0.1	Std. Units

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Sample ID: AA14648 MW-1A

FIELD SPECIFIC CONDUCTANCE SW846-9050A			NELAC:Y
	Analysis Date: 21-APR-14 11:10 Instrument: FIELD		Test: G604.0.0
Parameter	Result	Det. Limit	Units
CONDUCTIVITY	378	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000			NELAC:N
	Analysis Date: 21-APR-14 11:10 Instrument: FIELD		Test: G603.1.0
Parameter	Result	Det. Limit	Units
TEMPERATURE	11.64		Degrees C

TURBIDITY (NEPHELOMETRIC) EPA 180.1			NELAC:Y
Analyst: J. SMITH	Analysis Date: 23-APR-14 15:15		Test: G602.5.0
Parameter	Result	Det. Limit	Units
TURBIDITY	6.1		ntu

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Pace Analytical Services, INC. certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Pace Analytical
Pace Analytical Services, Inc.

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14649
	Completed	**PO Number**
	16-MAY-14	4063197
	Printed	**Sampled**
	16-MAY-14	21-APR-14 12:20

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: MW-1B
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: 8000-2932

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 18:02 | Instrument: IC | Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	36	1.3	mg/L

1:5 Dilution.

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 17:45 | Instrument: IC | Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	0.46	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM | Analysis Date: 24-APR-14 19:25 | Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 NELAC:Y

Analyst: A. CORNWELL | Analysis Date: 24-APR-14 10:30 | Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	360	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A NELAC:Y

Analyst: D. DICKERSON | Analysis Date: 23-APR-14 12:51 | Instrument: TOC | Test: O401.0.0

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Pace Analytical Services, Inc.

Sample ID: AA14649 MW-1B

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	BDL	1.0	mg/L

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	BDL	0.010	mg/L

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:14 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:14 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.055	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

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Pace Analytical Services, Inc.

Sample ID: AA14649 MW-1B

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	0.13	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:14 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Pace Analytical
Pace Analytical Services, Inc.

Sample ID: AA14649 MW-1B

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0010	mg/L

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	160	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:14 Instrument: ICP/MS Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:31 Instrument: ICP Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 08:00 Instrument: PREP Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 12:21 Instrument: CVAA Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

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Sample ID: AA14649 MW-1B

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 24-APR-14 17:22 | Instrument: GC/MS VOA | Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L

Sample ID: AA14649 MW-1B

Parameter	Result	Det. Limit	Units
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	103		% Rec
DIBROMOFLUOROMETHANE	100		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND Analysis Date: 23-APR-14 Instrument: PREP Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	33.76		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ Analysis Date: 23-APR-14 17:45 Instrument: GC/ECD Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
---			
(1) 2-CHLOROBIPHENYL	196.7		% Rec

Surrogate recovery affected by interferences in sample.

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 12:20 Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
ELEVATION OF GROUNDWATER SURFACE	612.76		Feet/MSL
ELEVATION OF MEASURING PT (TOP OF CASING FT. MSL)	618.70		Feet/MSL
DEPTH TO WATER (FT. BELOW MEASURING POINT)	5.94		ft

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 12:20 Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	7.44	0.1	Std. Units

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Sample ID: AA14649 MW-1B

FIELD SPECIFIC CONDUCTANCE SW846-9050A			NELAC:Y
	Analysis Date: 21-APR-14 12:20 Instrument: FIELD		Test: G604.0.0
Parameter	Result	Det. Limit	Units
CONDUCTIVITY	721	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000			NELAC:N
	Analysis Date: 21-APR-14 12:20 Instrument: FIELD		Test: G603.1.0
Parameter	Result	Det. Limit	Units
TEMPERATURE	12.57		Degrees C

TURBIDITY (NEPHELOMETRIC) EPA 180.1			NELAC:Y
Analyst: J. SMITH	Analysis Date: 23-APR-14 15:15		Test: G602.5.0
Parameter	Result	Det. Limit	Units
TURBIDITY	0.63		ntu

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Pace Analytical Services, INC. certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Pace Analytical
Pace Analytical Services, Inc.

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14650
	Completed 16-MAY-14	PO Number 4063197
	Printed 16-MAY-14	Sampled 21-APR-14 12:55

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: MW-3
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: 8000-8085

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 — NELAC:Y

Analyst: K. VEST — Analysis Date: 22-APR-14 19:29 — Instrument: IC — Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	2.9	0.25	mg/L

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 — NELAC:Y

Analyst: K. VEST — Analysis Date: 22-APR-14 19:29 — Instrument: IC — Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	0.08	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) — NELAC:Y

Analyst: S. BOXUM — Analysis Date: 24-APR-14 19:25 — Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 — NELAC:Y

Analyst: A. CORNWELL — Analysis Date: 24-APR-14 10:30 — Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	91	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A — NELAC:Y

Analyst: D. DICKERSON — Analysis Date: 23-APR-14 12:51 — Instrument: TOC — Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	1.2	1.0	mg/L

Pace Analytical
Pace Analytical Services, Inc.

Sample ID: AA14650 MW-3

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	BDL	0.010	mg/L

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:18 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:18 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.0027	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.10	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Sample ID: AA14650 MW-3

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	17	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:34 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:18 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0010	mg/L

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Sample ID: AA14650 MW-3

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:34 | Instrument: ICP | Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:34 | Instrument: ICP | Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	3.9	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE | Analysis Date: 24-APR-14 22:18 | Instrument: ICP/MS | Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:34 | Instrument: ICP | Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:34 | Instrument: ICP | Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.019	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 08:00 | Instrument: PREP | Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 12:44 | Instrument: CVAA | Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 24-APR-14 17:48 | Instrument: GC/MS VOA | Test: O510.6.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14650 MW-3

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L

Sample ID: AA14650 MW-3

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	104		% Rec
TOLUENE-D8	91		% Rec
4-BROMOFLUOROBENZENE	94		% Rec
DIBROMOFLUOROMETHANE	97		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND Analysis Date: 23-APR-14 Instrument: PREP Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	33.53		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ Analysis Date: 23-APR-14 17:45 Instrument: GC/ECD Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
(1) 2-CHLOROBIPHENYL	149.3		% Rec

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 12:55 Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
ELEVATION OF GROUNDWATER SURFACE	625.75		Feet/MSL
ELEVATION OF MEASURING PT (TOP OF CASING FT. MSL)	630.80		Feet/MSL
DEPTH TO WATER (FT. BELOW MEASURING POINT)	5.05		ft

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 12:55 Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.20	0.1	Std. Units

FIELD SPECIFIC CONDUCTANCE SW846-9050A NELAC:Y

Analysis Date: 21-APR-14 12:55 Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14650 MW-3

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	117	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000 NELAC:N

Analysis Date: 21-APR-14 12:55 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	11.66		Degrees C

TURBIDITY (NEPHELOMETRIC) EPA 180.1 NELAC:Y

Analyst: J. SMITH Analysis Date: 23-APR-14 15:15 Test: G602.5.0

Parameter	Result	Det. Limit	Units
TURBIDITY	75		ntu

1:5 Dilution.

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Pace Analytical Services, INC. certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Package # 66157

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14651
	Completed 16-MAY-14	PO Number 4063197
	Printed 16-MAY-14	Sampled 21-APR-14 15:15

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: MW-28C
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: 8005-7101

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 19:46 | Instrument: IC | Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	12	0.25	mg/L

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 19:46 | Instrument: IC | Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	0.29	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM | Analysis Date: 24-APR-14 19:25 | Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 NELAC:Y

Analyst: A. CORNWELL | Analysis Date: 24-APR-14 10:30 | Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	300	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A NELAC:Y

Analyst: D. DICKERSON | Analysis Date: 23-APR-14 12:51 | Instrument: TOC | Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	2.6	1.0	mg/L

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Sample ID: AA14651 MW-28C

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	0.045	0.010	mg/L

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:23 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:23 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.017	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.024	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

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Sample ID: AA14651 MW-28C

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	0.022	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	160	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	0.038	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	0.062	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 25-APR-14 19:00 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	0.0023	0.0010	mg/L

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Sample ID: AA14651 MW-28C

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	14	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:23 Instrument: ICP/MS Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:38 Instrument: ICP Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.099	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 08:00 Instrument: PREP Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 12:46 Instrument: CVAA Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 24-APR-14 18:14 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units

Sample ID: AA14651 MW-28C

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L

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Sample ID: AA14651 MW-28C

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	109		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	96		% Rec
DIBROMOFLUOROMETHANE	97		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND Analysis Date: 23-APR-14 Instrument: PREP Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	33.60		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ Analysis Date: 23-APR-14 17:45 Instrument: GC/ECD Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
----------			
(1) 2-CHLOROBIPHENYL	155.6		% Rec

Surrogate recovery affected by interferences in sample.

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 15:15 Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
ELEVATION OF GROUNDWATER SURFACE	670.22		Feet/MSL
ELEVATION OF MEASURING PT (TOP OF CASING FT. MSL)	674.40		Feet/MSL
DEPTH TO WATER (FT. BELOW MEASURING POINT)	4.18		ft

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 15:15 Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	4.92	0.1	Std. Units

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Sample ID: AA14651 MW-28C

FIELD SPECIFIC CONDUCTANCE SW846-9050A			NELAC:Y
Analysis Date: 21-APR-14 15:15 Instrument: FIELD			Test: G604.0.0
Parameter	Result	Det. Limit	Units
CONDUCTIVITY	494	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000			NELAC:N
Analysis Date: 21-APR-14 15:15 Instrument: FIELD			Test: G603.1.0
Parameter	Result	Det. Limit	Units
TEMPERATURE	12.32		Degrees C

TURBIDITY (NEPHELOMETRIC) EPA 180.1			NELAC:Y
Analyst: J. SMITH	Analysis Date: 23-APR-14 15:15		Test: G602.5.0
Parameter	Result	Det. Limit	Units
TURBIDITY	350		ntu

1:50 Dilution.

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Pace Analytical Services, INC. certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Pace Analytical®
Pace Analytical Services, Inc.

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14652
	Completed 16-MAY-14	**PO Number** 4063197
	Printed 16-MAY-14	**Sampled** 21-APR-14 14:05

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: MW-28D
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: 8005-7102

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 — NELAC:Y

Analyst: K. VEST — Analysis Date: 22-APR-14 20:21 — Instrument: IC — Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	19	0.25	mg/L

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 — NELAC:Y

Analyst: K. VEST — Analysis Date: 22-APR-14 20:21 — Instrument: IC — Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	0.054	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) — NELAC:Y

Analyst: S. BOXUM — Analysis Date: 24-APR-14 19:25 — Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 — NELAC:Y

Analyst: A. CORNWELL — Analysis Date: 24-APR-14 10:30 — Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	420	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A — NELAC:Y

Analyst: D. DICKERSON — Analysis Date: 23-APR-14 12:51 — Instrument: TOC — Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	1.2	1.0	mg/L

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Sample ID: AA14652 MW-28D

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	BDL	0.010	mg/L

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:27 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:27 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.034	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Sample ID: AA14652 MW-28D

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	1.3	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:41 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	0.022	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:27 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0010	mg/L

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Sample ID: AA14652 MW-28D

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:41 | Instrument: ICP | Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:41 | Instrument: ICP | Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	33	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE | Analysis Date: 24-APR-14 22:27 | Instrument: ICP/MS | Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:41 | Instrument: ICP | Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:41 | Instrument: ICP | Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	0.020	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 08:00 | Instrument: PREP | Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 12:48 | Instrument: CVAA | Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 24-APR-14 18:39 | Instrument: GC/MS VOA | Test: O510.6.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14652 MW-28D

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L

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Sample ID: AA14652 MW-28D

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	98		% Rec
DIBROMOFLUOROMETHANE	93		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND Analysis Date: 23-APR-14 Instrument: PREP Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	34.60		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ Analysis Date: 23-APR-14 17:45 Instrument: GC/ECD Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
(1) 2-CHLOROBIPHENYL	150.2		% Rec

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 14:05 Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
ELEVATION OF GROUNDWATER SURFACE	670.40		Feet/MSL
ELEVATION OF MEASURING PT (TOP OF CASING FT. MSL)	675.20		Feet/MSL
DEPTH TO WATER (FT. BELOW MEASURING POINT)	4.80		ft

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 14:05 Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	5.02	0.1	Std. Units

FIELD SPECIFIC CONDUCTANCE SW846-9050A NELAC:Y

Analysis Date: 21-APR-14 14:05 Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14652 MW-28D

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	653	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000 NELAC:N

Analysis Date: 21-APR-14 14:05 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	12.79		Degrees C

TURBIDITY (NEPHELOMETRIC) EPA 180.1 NELAC:Y

Analyst: J. SMITH Analysis Date: 23-APR-14 15:15 Test: G602.5.0

Parameter	Result	Det. Limit	Units
TURBIDITY	7.7		ntu

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

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KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Package # 66157

Pace Analytical
Pace Analytical Services, Inc.

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14653
	Completed 16-MAY-14	PO Number 4063197
	Printed 16-MAY-14	Sampled 21-APR-14 14:35

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: MW-28E
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: 8005-7103

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 20:55 | Instrument: IC | Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	1.9	0.25	mg/L

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 20:55 | Instrument: IC | Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	0.051	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM | Analysis Date: 24-APR-14 19:25 | Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 NELAC:Y

Analyst: A. CORNWELL | Analysis Date: 24-APR-14 10:30 | Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	180	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A NELAC:Y

Analyst: D. DICKERSON | Analysis Date: 23-APR-14 12:51 | Instrument: TOC | Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	BDL	1.0	mg/L

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Pace Analytical Services, Inc.

Sample ID: AA14653 MW-28E

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	BDL	0.010	mg/L

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:31 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:31 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	0.17	0.010	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

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Sample ID: AA14653 MW-28E

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	0.17	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:31 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0010	mg/L

Sample ID: AA14653 MW-28E

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	14	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:31 Instrument: ICP/MS Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:44 Instrument: ICP Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 08:00 Instrument: PREP Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL Analysis Date: 24-APR-14 12:50 Instrument: CVAA Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 25-APR-14 08:48 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14653 MW-28E

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L

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Sample ID: AA14653 MW-28E

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	105		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	98		% Rec
DIBROMOFLUOROMETHANE	100		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND Analysis Date: 23-APR-14 Instrument: PREP Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	33.31		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ Analysis Date: 23-APR-14 17:45 Instrument: GC/ECD Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
----------			
(1) 2-CHLOROBIPHENYL	135.2		% Rec

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 14:35 Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
ELEVATION OF GROUNDWATER SURFACE	668.06		Feet/MSL
ELEVATION OF MEASURING PT (TOP OF CASING FT. MSL)	677.00		Feet/MSL
DEPTH TO WATER (FT. BELOW MEASURING POINT)	8.94		ft

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 14:35 Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.18	0.1	Std. Units

FIELD SPECIFIC CONDUCTANCE SW846-9050A NELAC:Y

Analysis Date: 21-APR-14 14:35 Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14653 MW-28E

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	319	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000 NELAC:N

Analysis Date: 21-APR-14 14:35 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.87		Degrees C

TURBIDITY (NEPHELOMETRIC) EPA 180.1 NELAC:Y

Analyst: J. SMITH Analysis Date: 23-APR-14 15:15 Test: G602.5.0

Parameter	Result	Det. Limit	Units
TURBIDITY	1.1		ntu

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Pace Analytical Services, INC. certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Package # 66157

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14654
	Completed 16-MAY-14	PO Number 4063197
	Printed 16-MAY-14	Sampled 21-APR-14 10:55

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: FB
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: N/A

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 19:11 | Instrument: IC | Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	BDL	0.25	mg/L

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 19:11 | Instrument: IC | Test: G310.5.0

Parameter	Result	Det. Limit	Units
NITROGEN, NITRATE	BDL	0.050	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM | Analysis Date: 24-APR-14 19:25 | Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 NELAC:Y

Analyst: A. CORNWELL | Analysis Date: 24-APR-14 10:30 | Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	BDL	10	mg/L

TOTAL ORGANIC CARBON SW846-9060A NELAC:Y

Analyst: D. DICKERSON | Analysis Date: 23-APR-14 12:51 | Instrument: TOC | Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	BDL	1.0	mg/L

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Sample ID: AA14654 FB

TOTAL ORGANIC HALIDES (TOX) SW846-9020B NELAC:Y

Vendor: KEYSTONE LABORATORIES, INC. Analysis Date: 14-MAY-14 Instrument: TOX Test: O404.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC HALOGEN (TOX)	BDL	0.010	mg/L

FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.3.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P129.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ANTIMONY ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:35 Instrument: ICP/MS Test: V102.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.0060	mg/L

ARSENIC ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:35 Instrument: ICP/MS Test: V103.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0010	mg/L

BARIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M104.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
BARIUM	BDL	0.010	mg/L

CADMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M108.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

BERYLLIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M105.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Sample ID: AA14654 FB

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.010	mg/L

CHROMIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M110.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.020	mg/L

COBALT ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M111.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COBALT	BDL	0.020	mg/L

COPPER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M112.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M115.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
IRON	BDL	0.020	mg/L

LEAD ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M116.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.030	mg/L

NICKEL ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 01:48 Instrument: ICP Test: M122.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.020	mg/L

SELENIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 24-APR-14 22:35 Instrument: ICP/MS Test: V128.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0010	mg/L

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Sample ID: AA14654 FB

SILVER ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:48 | Instrument: ICP | Test: M130.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:48 | Instrument: ICP | Test: M131.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
SODIUM	BDL	0.10	mg/L

THALLIUM ICP/MS SW846-6020 NELAC:Y

Analyst: C. WILLHITE | Analysis Date: 24-APR-14 22:35 | Instrument: ICP/MS | Test: V134.3.0

Prep: ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV: 2.8 P129.4.0

Parameter	Result	Det. Limit	Units
THALLIUM	BDL	0.0020	mg/L

VANADIUM ICP SW846-6010B NELAC:N

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:48 | Instrument: ICP | Test: M138.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.25	mg/L

ZINC ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER | Analysis Date: 24-APR-14 01:48 | Instrument: ICP | Test: M139.3.0

Prep: FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0 P129.3.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.010	mg/L

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 08:00 | Instrument: PREP | Test: P131.6.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA SW846-7470A NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 24-APR-14 12:51 | Instrument: CVAA | Test: M120.1.0

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A P131.6.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 25-APR-14 09:14 | Instrument: GC/MS VOA | Test: O510.6.0

Parameter	Result	Det. Limit	Units

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Sample ID: AA14654 FB

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L

Pace Analytical
Pace Analytical Services, Inc.

Sample ID: AA14654 FB

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	106		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	98		% Rec
DIBROMOFLUOROMETHANE	99		% Rec

Prep Method SW846-5030B Purge and Trap

MICROEXTRACTION FOR EDB & DBCP SW846-8011

Analyst: C. HIPSKIND Analysis Date: 23-APR-14 Instrument: PREP Test: P425.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	33.34		mL
FINAL VOLUME	2		mL

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 NELAC:Y

Analyst: E. WERNZ Analysis Date: 23-APR-14 17:45 Instrument: GC/ECD Test: O425.2.0

Prep: MICROEXTRACTION FOR EDB & DBCP SW846-8011 P425.2.0

Parameter	Result	Det. Limit	Units
1,2-DIBROMOETHANE (EDB)	BDL	0.00005	mg/L
1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	BDL	0.0002	mg/L
...			
SURROGATE RECOVERY			
(1) 2-CHLOROBIPHENYL	141.3		% Rec

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Pace Analytical Services, INC. certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

As indicated, some testing was performed at the following locations:

KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH , NEWTON, IA 50208

Approved by: CHRISTOPHER BOYLE 15-MAY-14

Package # 66157

Pace Analytical®
Pace Analytical Services, Inc.

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14655
	Completed	**PO Number**
	16-MAY-14	4063197
	Printed	**Sampled**
	16-MAY-14	

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: TRIP BLANK
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: GROUNDWATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: GROUNDWATER WELLS (ANNUAL-2ND QUARTER)
LOCATION: GREEN VALLEY LANDFILL
AKGWA #: NA

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 25-APR-14 09:39 Instrument: GC/MS VOA Test: O510.6.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	0.0050	mg/L
BROMOCHLOROMETHANE	BDL	0.0050	mg/L
BROMODICHLOROMETHANE	BDL	0.0050	mg/L
BROMOFORM	BDL	0.0050	mg/L
BROMOMETHANE	BDL	0.0050	mg/L
CARBON TETRACHLORIDE	BDL	0.0050	mg/L
CHLOROBENZENE	BDL	0.0050	mg/L
DIBROMOCHLOROMETHANE	BDL	0.0050	mg/L
CHLOROETHANE	BDL	0.0050	mg/L
CHLOROFORM	BDL	0.0050	mg/L
CHLOROMETHANE	BDL	0.0050	mg/L
DIBROMOMETHANE	BDL	0.0050	mg/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	0.0050	mg/L
1,1-DICHLOROETHANE	BDL	0.0050	mg/L
1,2-DICHLOROETHANE	BDL	0.0050	mg/L
1,1-DICHLOROETHENE	BDL	0.0050	mg/L
CIS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
TRANS-1,2-DICHLOROETHENE	BDL	0.0050	mg/L
1,2-DICHLOROPROPANE	BDL	0.0050	mg/L
ETHYL BENZENE	BDL	0.0050	mg/L

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Pace Analytical Services, Inc.

Sample ID: AA14655 TRIP BLANK

Parameter	Result	Det. Limit	Units
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	0.0050	mg/L
METHYL ETHYL KETONE	BDL	0.099	mg/L
STYRENE	BDL	0.0050	mg/L
1,1,1,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
1,1,2,2-TETRACHLOROETHANE	BDL	0.0050	mg/L
TETRACHLOROETHENE	BDL	0.0050	mg/L
TOLUENE	BDL	0.0050	mg/L
1,1,1-TRICHLOROETHANE	BDL	0.0050	mg/L
1,1,2-TRICHLOROETHANE	BDL	0.0050	mg/L
TRICHLOROETHENE	BDL	0.0050	mg/L
TRICHLOROFLUOROMETHANE	BDL	0.0050	mg/L
1,2,3-TRICHLOROPROPANE	BDL	0.0050	mg/L
VINYL CHLORIDE	BDL	0.0020	mg/L
XYLENES (O/M/P-XYLENE)	BDL	0.0050	mg/L
CARBON DISULFIDE	BDL	0.099	mg/L
ACRYLONITRILE	BDL	0.060	mg/L
VINYL ACETATE	BDL	0.0050	mg/L
ACETONE (2-PROPANONE)	BDL	0.099	mg/L
ACROLEIN	BDL	0.060	mg/L
4-METHYL-2-PENTANONE	BDL	0.050	mg/L
2-HEXANONE	BDL	0.050	mg/L
IODOMETHANE	BDL	0.0050	mg/L
CIS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,3-DICHLOROPROPENE	BDL	0.0050	mg/L
TRANS-1,4-DICHLORO-2-BUTENE	BDL	0.099	mg/L
...			
SURROGATE RECOVERY			
DICHLOROETHANE-D4	105		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	99		% Rec
DIBROMOFLUOROMETHANE	98		% Rec

Prep Method SW846-5030B Purge and Trap

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

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KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

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Pace Analytical Services, Inc.

Sample ID: AA14655 TRIP BLANK

Approved by: CHRISTOPHER BOYLE 29-APR-14

Pace Analytical
Pace Analytical Services, Inc.

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
PACE ANALYTICAL SERVICES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-APR-14	AA14657
	Completed 16-MAY-14	**PO Number** 4063197
	Printed 16-MAY-14	**Sampled** 21-APR-14 13:05

Report To	Bill To
DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168	ALLIED WASTE SYSTEMS 258 North Fork Road Wheeling, WV 26003

Sample Description

CLIENT ID: SW-3
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 10497 - KY-ALLIED-GREEN VALLEY LANDFILL
PROJECT NAME: SURFACE WATER - GREEN VALLEY LANDFILL
DATA PACKAGE #: 66157
DESCRIPTION: SURFACE WATERS - QUARTERLY
SITE: GREEN VALLEY LANDFILL

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 22:56 | Instrument: IC | Test: G310.2.0

Parameter	Result	Det. Limit	Units
CHLORIDE	6.4	1.0	mg/L

SULFATE BY ION CHROMATOGRAPHY SW846-9056 NELAC:Y

Analyst: K. VEST | Analysis Date: 22-APR-14 23:14 | Instrument: IC | Test: G310.7.0

Parameter	Result	Det. Limit	Units
SULFATE	270	6.3	mg/L

1:25 Dilution.

TOTAL ORGANIC CARBON SW846-9060A NELAC:Y

Analyst: D. DICKERSON | Analysis Date: 23-APR-14 12:51 | Instrument: TOC | Test: O401.0.0

Parameter	Result	Det. Limit	Units
TOTAL ORGANIC CARBON (TOC)	2.2	1.0	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM | Analysis Date: 24-APR-14 19:25 | Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	BDL	10	mg/L

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM2540 D 19TH ED NELAC:Y

Analyst: A. CORNWELL | Analysis Date: 25-APR-14 09:25 | Test: G403.8.0

Parameter	Result	Det. Limit	Units

Pace Analytical®
Pace Analytical Services, Inc.

Sample ID: AA14657 SW-3

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	8	1	mg/L

TOTAL DISSOLVED SOLIDS SM2540 C 1997 NELAC:Y

Analyst: A. CORNWELL Analysis Date: 24-APR-14 10:30 Test: G402.9.0

Parameter	Result	Det. Limit	Units
DISSOLVED SOLIDS	440	10	mg/L

TOTAL SOLIDS DRIED AT 103-105 DEGREES C SM2540 B 1997 NELAC:Y

Analyst: A. CORNWELL Analysis Date: 24-APR-14 13:35 Test: G401.6.0

Parameter	Result	Det. Limit	Units
SOLIDS	530	10	mg/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3010A

Analyst: K. KAMARA Analysis Date: 23-APR-14 09:00 Instrument: PREP Test: P130.5.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

IRON ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 05:25 Instrument: ICP Test: M115.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3010A P130.5.0

Parameter	Result	Det. Limit	Units
IRON	0.62	0.020	mg/L

SODIUM ICP SW846-6010B NELAC:Y

Analyst: J. KRAMER Analysis Date: 24-APR-14 05:25 Instrument: ICP Test: M131.3.0

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3010A P130.5.0

Parameter	Result	Det. Limit	Units
SODIUM	8.1	0.10	mg/L

GROUNDWATER MONITORING WELL DATA SAS

Analysis Date: 21-APR-14 13:05 Instrument: FIELD Test: G600.0.0

Parameter	Result	Det. Limit	Units
FLOW RATE (CMF)	10		Gal/Min

FIELD PH (AQUEOUS) SW846-9040C NELAC:Y

Analysis Date: 21-APR-14 13:05 Instrument: FIELD Test: G607.0.0

Parameter	Result	Det. Limit	Units
PH	6.85	0.1	Std. Units

FIELD SPECIFIC CONDUCTANCE SW846-9050A NELAC:Y

Analysis Date: 21-APR-14 13:05 Instrument: FIELD Test: G604.0.0

Parameter	Result	Det. Limit	Units

Pace Analytical
Pace Analytical Services, Inc.

Sample ID: AA14657 SW-3

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	672	1.0	umHOS/cm

FIELD TEMPERATURE SM2550 B 2000 NELAC:N

Analysis Date: 21-APR-14 13:05 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	20.50		Degrees C

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .6 C.
Sample chain of custody number KENVIRONS.

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KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTOPHER BOYLE 06-MAY-14

01103369

KENVIRONS, INC.
CHAIN OF CUSTODY RECORD

452 Versailles Road; Frankfort, KY 40601
www.kenvirons.com (502) 695-4357 Fax: (502) 695-4363

Customer Name: Kenvirons | Submitter No. 9795 | Send Report To: Bill Knorr
Project Number: 200700 | Address: Kenvirons, Inc.
Client: ~~[redacted]~~ Green Valley LF | E-mail:
Sampled By: BFK III | Sample Turn Around Time — Standard: X Rush Date: ___/___/___ (Accelerated TAT subject to Additional Charge) (Date must be Accepted and Approved by Lab)

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location	Sample type (desc: DW, GW, WW, Soil, Sludge, Other	Number of Containers	Flow (Gal/Min)	Field Turbidity	Field pH	Field Conductance	Field Temperature	Field Dissolved Oxygen	ORP	Z Quote number	Lab use only Sample No.
4/21/14	1150		X	MW-1	GW	12	—	930.3	5.80	67	8.99	6.19	40.2	144757	AA14647
4/21/14	1110		X	MW-1A	GW	12	—	946.7	6.97	378	11.64	4.43	-19.4	144757	648
4/21/14	1220		X	MW-1B	GW	12	—	948.3	7.44	721	12.57	1.26	-44.3	144757	649
4/21/14	1255		X	MW-3	GW	12	—	994.6	6.20	117	11.606	2.06	21.1	144757	650
4/21/14	1515		X	MW-28C	GW	12	—	1001.7	4.92	494	12.32	0.80	89.2	144757	651
4/21/14	1405		X	MW-28D	GW	12	—	941.3	5.02	6053	12.79	3.94	83.3	144757	652
4/21/14	1435		X	MW-28E	GW	12	—	951.5	6.18	319	14.87	6.93	22.8	144757	653
4/21/14	1055		X	FB	~	12	—	—	—	—	—	—	—	144757	654
				TRIP BLANK		2									655

Relinquished by: (Signature) BFK III Date/Time 4/21/14 1730
Relinquished by: (Signature) Date/Time
Relinquished by: (Signature) Date/Time
Received for Lab by: (Signature)

Received by: (Signature) Sent Via Fed Ex
Received by: (Signature)
Received by: (Signature)
Date 4/22/14 Time 0822 — 0.6 °C — ROI? Yes No

Laboratory Use Only	yes	no
Custody seals present/intact?		—
Broken containers?		—
COC agree with sample labels?	—	
Correct containers for testing?	—	
Headspace issues acceptable?	—	
Holding time(s) acceptable?	—	
Preservative pH's acceptable?		
Was pH left unadjusted?		

Comments: Short Hold Nitrate!

White - Kenvirons Laboratory
Yellow - Third Party Laboratory
Pink - Sampler

Package # 66167

Sample Receiving Check Sheet

COC ID/Date Received: 0903369

	Sulfuric plastic <2	Sulfuric Diss Plastic<2	Sulfuric glass <2	Nitric plastic <2	Nitric Diss Plastic <2	NaOH/ZnAOC <12	NaOH plastic >12	preservative added?	pH after addition	Residual Cl2 present Y/N	Headspace >1/4"	Sample is UNP or other than aqueous Y/N	HCL Preserved Containers*	Comments
Line 1 on COC	2		X	2							1/4		X	
Line 2 on COC	2		X	2							1/4		X	
Line 3 on COC	2		X	2									X	
Line 4 on COC	2		X	2									X	
Line 5 on COC	2		X	2									X	
Line 6 on COC	2		X	2							3/4		X	
Line 7 on COC	2		X	2							1/4		X	
Line 8 on COC	2		X	2									X	
Line 9 on COC													X	
Line 10 on COC														
Line 11 on COC														
Line 12 on COC														
Line 13 on COC														
Line 14 on COC														
Line 15 on COC														
Line 16 on COC														
Line 17 on COC														
Line 18 on COC														
Line 19 on COC														
Line 20 on COC														
Line 21 on COC														
Line 22 on COC														
Line 23 on COC														
Line 24 on COC														
Line 25 on COC														

Aqueous samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container then record the pH in the box. If approved by the project chemist then add acid or base to the sample to achieve the correct pH. Add up to two times the volume initially added to the sample container. Record pH after the addition of this preservative.

Preservative sizes for addition:

120ml NaOH	1 mL
500ml H2SO4	2 mL
1000ml H2SO4	4 mL
500ml HNO3	2 mL
1000ml HNO3	4 mL

Drop Off Fedex UPS Courier

Tracking #

Checked by: [illegible]

*pH of HCL preserved containers checked by analysts

Comments:

Package # 66157

01103368

KENVIRONS, INC.
CHAIN OF CUSTODY RECORD

452 Versailles Road; Frankfort, KY 40601
www.kenvirons.com (502) 695-4357 Fax: (502) 695-4363

Customer Name: Kenvirons | Submitter No. 9795

Project Number: 2007007

Client: Green Valley LF

Sampled By: BFK III

Send Report To: Bill Knaer

Address: Kenvirons, Inc.

E-mail:

Sample Turn Around Time
Standard: X Rush Date: ___/___/___
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location	Sample type (Matrix: DW, GW, WW, Soil, Sludge, Other)	Number of Containers	Flow (Gal/Min)	Field Turbidity	Field pH	Field Conductance	Field Temperature	Field Dissolved Oxygen	ORP	Z Quote number	Lab use only Sample No.
4/21/14	1305 AM/PM		X	SW-3	SW	4	10	—	6.85	672	20.50	—	—	146799	AA14657
	AM/PM														
	AM/PM														
	AM/PM														
	AM/PM														
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	AM/PM														
	AM/PM														
	AM/PM														
	AM/PM														
	AM/PM														

Relinquished by: (Signature) Date/Time 4/21/14
BFK III 1730

Relinquished by: (Signature) Date/Time

Relinquished by: (Signature) Date/Time

Received for Lab by: (Signature)

Received by: (Signature)
Sent Via Fed Ex

Received by: (Signature)

Received by: (Signature)

Date 4/22/14
Time 0852

0-6 °C

ROI? Yes / No

Laboratory Use Only	yes	no
Custody seals present/intact?	—	
Broken containers?		—
COC agree with sample labels?	—	
Correct containers for testing?	—	
Headspace issues acceptable?	—	
Holding time(s) acceptable?	—	
Preservative pH's acceptable?		
Was pH left unadjusted?		

Comments:

White - Kenvirons Laboratory
Yellow - Third Party Laboratory
Pink - Sampler

Sample Receiving Check Sheet

COC ID/Date Received: 4m0376 8

	Sulfuric plastic <2	Sulfuric Diss Plastic<2	Sulfuric glass <2	Nitric plastic <2	Nitric Diss Plastic <2	NaOH/ZnAOC <12	NaOH plastic>12	preservative added?	pH after addition	Residual C12 present Y/N	Headspace >1/4"	Sample is UNP or other than aqueous Y/N	HCl Preserved Containers*	Comments
Line 1 on COC	2			2										
Line 2 on COC														
Line 3 on COC														
Line 4 on COC														
Line 5 on COC														
Line 6 on COC														
Line 7 on COC														
Line 8 on COC														
Line 9 on COC														
Line 10 on COC														
Line 11 on COC														
Line 12 on COC														
Line 13 on COC														
Line 14 on COC														
Line 15 on COC														
Line 16 on COC														
Line 17 on COC														
Line 18 on COC														
Line 19 on COC														
Line 20 on COC														
Line 21 on COC														
Line 22 on COC														
Line 23 on COC														
Line 24 on COC														
Line 25 on COC														

Aqueous samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container then *record the pH in the box.* If approved by the project chemist then add acid or base to the sample to achieve the correct pH. Add up to two times the volume initially added to the sample container. Record pH after the addition of this preservative.

Preservative sizes for addition:

120ml NaOH	1 mL
500ml H2SO4	2 mL
1000ml H2SO4	4 mL
500ml HNO3	2 mL
1000ml HNO3	4 mL

Drop Off FedEx UPS Courier

Tracking #

Checked by:

***pH of HCL preserved containers checked by analysts**

Comments:

Pace Analytical®

Pace Analytical Services, Inc.

Quality Assurance Report

66157

16-MAY-14

Service Location	Submitter
Pace Analytical Services, INC. 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304	DANIEL DEBORDE GREEN VALLEY LANDFILL PO BOX 9 RUSH, KY 41168

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Released
AA14647	MW-1	21-Apr-14 11:50	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	8000-8086		
AA14648	MW-1A	21-Apr-14 11:10	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	8000-2931		
AA14649	MW-1B	21-Apr-14 12:20	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	8000-2932		
AA14650	MW-3	21-Apr-14 12:55	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	8000-8085		
AA14651	MW-28C	21-Apr-14 15:15	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	8005-7101		
AA14652	MW-28D	21-Apr-14 14:05	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	8005-7102		
AA14653	MW-28E	21-Apr-14 14:35	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	8005-7103		
AA14654	FB	21-Apr-14 10:55	22-Apr-14	15-May-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	N/A		
AA14655	TRIP BLANK		22-Apr-14	29-Apr-2014
	DESCRIPTION :	GROUNDWATER WELLS (ANNUAL-2ND QUARTER)		
	LOCATION :	GREEN VALLEY LANDFILL		
	AKGWA # :	NA		
AA14657	SW-3	21-Apr-14 13:05	22-Apr-14	06-May-2014
	DESCRIPTION :	SURFACE WATERS - QUARTERLY		
	SITE :	GREEN VALLEY LANDFILL		

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Quality Assurance Report 66157

ANTIMONY ICP/MS SW846-6020 V102.3
Prep : ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

R624631 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2808005		Analytical Run: R624753							
LCS	Q2808006		Analytical Run: R624753							
DUP02	Q2808007		Analytical Run: R624753							
SPI02	Q2808008		Analytical Run: R624753							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624753							

R624753 Analyst: C WILLHITE Run Date: 24-Apr-14 Instrument: ICP/MS
Analytical Reviewer: S ENDERSEN Review Date: 25-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808891		ANTIMONY	50			51.4	ug/L	102.8	
ICS-A	Q2808909		ANTIMONY	40			42.6	ug/L	106.5	
CCV	Q2808900		ANTIMONY	20			20.7	ug/L	103.5	
BLA01	Q2808893		ANTIMONY			<	2.40	ug/L		
BLA02	Q2808005		ANTIMONY			<	2.40	ug/L		
LCS	Q2808006		ANTIMONY	40			43.4	ug/L	108.5	
SER01	Q2808911	AA14647	ANTIMONY	0		BDL		ug/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
DUP02	Q2808007	AA14647	ANTIMONY	0		BDL		ug/L		
SPI02	Q2808008	AA14647	ANTIMONY	0	40		42.4	ug/L	106.0	
CCV	Q2808901		ANTIMONY	20			20.9	ug/L	104.5	
BLA01	Q2808894		ANTIMONY			<	2.40	ug/L		
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808902		ANTIMONY	20			20.6	ug/L	103.0	
BLA01	Q2808895		ANTIMONY			<	2.40	ug/L		
SER01	Q2808912	AA14660	ANTIMONY	0		BDL		ug/L		
ICS-A	Q2808917		ANTIMONY	40			35.9	ug/L	89.8	

Q2808912 1:5 Dilution.
Q2808912 There was possible matrix interference for Ni
Q2808912 as indicated by the serial dilution results.
Q2808917 1:5 Dilution.

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Quality Assurance Report 66157

ARSENIC ICP/MS SW846-6020 V103.3
Prep : ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

R624631 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2808005		Analytical Run: R624753							
LCS	Q2808006		Analytical Run: R624753							
DUP02	Q2808007		Analytical Run: R624753							
SPI02	Q2808008		Analytical Run: R624753							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624753							

R624753 Analyst: C WILLHITE Run Date: 24-Apr-14 Instrument: ICP/MS
Analytical Reviewer: S ENDERSEN Review Date: 25-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2808914		ARSENIC	1			0.819	ug/L	81.9	
ICV01	Q2808891		ARSENIC	50			48.5	ug/L	97.0	
CDL01	Q2808908		ARSENIC	2			2.20	ug/L	110.0	
ICS-A	Q2808909		ARSENIC	40			39.9	ug/L	99.8	
CCV	Q2808900		ARSENIC	20			20.8	ug/L	104.0	
BLA01	Q2808893		ARSENIC			<	0.400	ug/L		
BLA02	Q2808005		ARSENIC			<	0.400	ug/L		
LCS	Q2808006		ARSENIC	40			39.2	ug/L	98.0	
SER01	Q2808911	AA14647	ARSENIC	0		BDL		ug/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
DUP02	Q2808007	AA14647	ARSENIC	0		BDL		ug/L		
SPI02	Q2808008	AA14647	ARSENIC	0	40		39.4	ug/L	98.5	
CCV	Q2808901		ARSENIC	20			20.7	ug/L	103.5	
BLA01	Q2808894		ARSENIC			<	0.400	ug/L		
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808902		ARSENIC	20			21.2	ug/L	106.0	
BLA01	Q2808895		ARSENIC			<	0.400	ug/L		
SER01	Q2808912	AA14660	ARSENIC	0		BDL		ug/L		
ICS-A	Q2808917		ARSENIC	40			47.5	ug/L	118.8	

Q2808912 1:5 Dilution.
Q2808912 There was possible matrix interference for Ni
Q2808912 as indicated by the serial dilution results.
Q2808917 1:5 Dilution.

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Quality Assurance Report 66157

BARIUM ICP SW846-6010B M104.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		BARIUM	1			1.00	mg/L	100.0	
CDL01	Q2808471		BARIUM	10			9.89	mg/L	98.9	
ICS-AB	Q2808449		BARIUM	0.500			0.497	mg/L	99.4	
BLA02	Q2807997		BARIUM			<	0.000800	mg/L		
LCS	Q2807998		BARIUM	2			2.01	mg/L	100.5	
SER01	Q2808477	AA14644	BARIUM	0.0564			0.0567	mg/L		0.5
DUP02	Q2807999	AA14644	BARIUM	0.0564			0.0560	mg/L		0.7
SPI02	Q2808000	AA14644	BARIUM	0.0564	2.00		2.13	mg/L	103.7	
CCV	Q2808455		BARIUM	5.00			4.95	mg/L	99.0	
BLA01	Q2808439		BARIUM			<	0.000800	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		BARIUM	5.00			5.01	mg/L	100.2	
BLA01	Q2808440		BARIUM			<	0.000800	mg/L		
SER01	Q2808474	AA10294	BARIUM	0.344			0.344	mg/L		0
CDL01	Q2808470		BARIUM	0.0100			0.0101	mg/L	101.0	
ICS-AB	Q2808450		BARIUM	0.500			0.495	mg/L	99.0	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

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Quality Assurance Report 66157

BERYLLIUM ICP SW846-6010B M105.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		BERYLLIUM	1			1.01	mg/L	101.0	
CDL01	Q2808471		BERYLLIUM	10			9.78	mg/L	97.8	
ICS-AB	Q2808449		BERYLLIUM	0.500			0.528	mg/L	105.6	
BLA02	Q2807997		BERYLLIUM			<	0.000400	mg/L		
LCS	Q2807998		BERYLLIUM	0.05			0.0547	mg/L	109.4	
SER01	Q2808477	AA14644	BERYLLIUM	0		BDL		mg/L		
DUP02	Q2807999	AA14644	BERYLLIUM	0		BDL		mg/L		
SPI02	Q2808000	AA14644	BERYLLIUM	0	0.050		0.0565	mg/L	113.0	
CCV	Q2808455		BERYLLIUM	2			2.07	mg/L	103.5	
BLA01	Q2808439		BERYLLIUM			<	0.000400	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		BERYLLIUM	2			2.10	mg/L	105.0	
BLA01	Q2808440		BERYLLIUM			<	0.000400	mg/L		
SER01	Q2808474	AA10294	BERYLLIUM	0		BDL		mg/L		
CDL01	Q2808470		BERYLLIUM	0.004			0.00386	mg/L	96.5	
ICS-AB	Q2808450		BERYLLIUM	0.500			0.524	mg/L	104.8	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

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Quality Assurance Report 66157

CADMIUM ICP SW846-6010B M108.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		CADMIUM	1			1.01	mg/L	101.0	
CDL01	Q2808471		CADMIUM	10			9.90	mg/L	99.0	
ICS-AB	Q2808449		CADMIUM	1.00			1.06	mg/L	106.0	
BLA02	Q2807997		CADMIUM			<	0.000400	mg/L		
LCS	Q2807998		CADMIUM	0.05			0.0524	mg/L	104.8	
SER01	Q2808477	AA14644	CADMIUM	0		BDL		mg/L		
DUP02	Q2807999	AA14644	CADMIUM	0		BDL		mg/L		
SPI02	Q2808000	AA14644	CADMIUM	0	0.050		0.0537	mg/L	107.4	
CCV	Q2808455		CADMIUM	5.00			5.16	mg/L	103.2	
BLA01	Q2808439		CADMIUM			<	0.000400	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		CADMIUM	5.00			5.20	mg/L	104.0	
BLA01	Q2808440		CADMIUM			<	0.000400	mg/L		
SER01	Q2808474	AA10294	CADMIUM	0		CNA	0.00106	mg/L		
CDL01	Q2808470		CADMIUM	0.0050			0.00484	mg/L	96.8	
ICS-AB	Q2808450		CADMIUM	1.00			1.05	mg/L	105.0	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

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Quality Assurance Report 66157

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4 REV. 2.0 (1993) G301.1

R624808 Analyst: S BOXUM Run Date: 24-Apr-14
Analytical Reviewer: P SPENCE Review Date: 28-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2809347		CHEMICAL OXYGEN DEMAND	10.0			13.9	mg/L	139.0	
ICV01	Q2809348		CHEMICAL OXYGEN DEMAND	100			102	mg/L	102.0	
SPI01	Q2809356	AA14501	CHEMICAL OXYGEN DEMAND	0	50.0		49.8	mg/L	99.6	
DPS01	Q2809357	AA14501	CHEMICAL OXYGEN DEMAND	0	50.0		51.0	mg/L	102.0	2.4
CCV	Q2809358		CHEMICAL OXYGEN DEMAND	100			102	mg/L	102.0	
BLA01	Q2809359		CHEMICAL OXYGEN DEMAND			BDL	5	mg/L		
ICV01	Q2809360		CHEMICAL OXYGEN DEMAND	100			99.7	mg/L	99.7	
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
DUP01	Q2809361	AA14647	CHEMICAL OXYGEN DEMAND	0		BDL		mg/L		
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
CCV	Q2809362		CHEMICAL OXYGEN DEMAND	100			101	mg/L	101.0	
BLA01	Q2809363		CHEMICAL OXYGEN DEMAND			BDL	5	mg/L		
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
DUP01	Q2809365	AA14657	CHEMICAL OXYGEN DEMAND	0		BDL		mg/L		
CCV	Q2809366		CHEMICAL OXYGEN DEMAND	100			101	mg/L	101.0	
BLA01	Q2809367		CHEMICAL OXYGEN DEMAND			BDL	5	mg/L		
ICV01	Q2809368		CHEMICAL OXYGEN DEMAND	100			98.1	mg/L	98.1	
SPI01	Q2809369	AA14514	CHEMICAL OXYGEN DEMAND	4.83	50.0		51.0	mg/L	92.3	
DPS01	Q2809370	AA14514	CHEMICAL OXYGEN DEMAND	4.83	50.0		52.8	mg/L	95.9	3.8

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 G310.2

R624664 Analyst: K VEST Run Date: 22-Apr-14 Instrument: IC
Analytical Reviewer: E WERNZ Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808208		CHLORIDE			BDL	0.05	mg/L		
CCVL	Q2808209		CHLORIDE	1.25			1.27	mg/L	101.6	
CCVH	Q2808210		CHLORIDE	5.00			4.83	mg/L	96.6	
LFB01L	Q2808211		CHLORIDE	1.25			1.27	mg/L	101.6	
LFB01H	Q2808212		CHLORIDE	12.5			12.3	mg/L	98.4	
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
CCVL	Q2808216		CHLORIDE	1.25			1.28	mg/L	102.4	
CCVH	Q2808217		CHLORIDE	5.00			4.83	mg/L	96.6	
BLA01	Q2808218		CHLORIDE			BDL	0.05	mg/L		
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							

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Quality Assurance Report 66157

CHLORIDE BY ION CHROMATOGRAPHY SW846-9056 G310.2

R624664 Analyst: K VEST Run Date: 22-Apr-14
Analytical Reviewer: E WERNZ Review Date: 23-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SPI01	Q2808219	AA14653	CHLORIDE	1.68	1.25		3.05	mg/L	109.6	
DPS01	Q2808220	AA14653	CHLORIDE	1.68	1.25		3.03	mg/L	108.0	1.5
CCVL	Q2808221		CHLORIDE	1.25			1.29	mg/L	103.2	
CCVH	Q2808222		CHLORIDE	5.00			4.84	mg/L	96.8	
BLA01	Q2808223		CHLORIDE			BDL	0.05	mg/L		
LFB01L	Q2808224		CHLORIDE	1.25			1.28	mg/L	102.4	
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
CCVL	Q2808227		CHLORIDE	1.25			1.28	mg/L	102.4	
CCVH	Q2808228		CHLORIDE	5.0			04.82	mg/L	96.4	
BLA01	Q2808229		CHLORIDE			BDL	0.05	mg/L		
LFB01L	Q2808235		CHLORIDE	1.25			1.28	mg/L	102.4	

CHROMIUM ICP SW846-6010B M110.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		CHROMIUM	1			1.00	mg/L	100.0	
CDL01	Q2808471		CHROMIUM	10			9.89	mg/L	98.9	
ICS-AB	Q2808449		CHROMIUM	0.500			0.488	mg/L	97.6	
BLA02	Q2807997		CHROMIUM			<	0.000800	mg/L		
LCS	Q2807998		CHROMIUM	0.2			0.201	mg/L	100.5	
SER01	Q2808477	AA14644	CHROMIUM	0		BDL		mg/L		
DUP02	Q2807999	AA14644	CHROMIUM	0		BDL		mg/L		
SPI02	Q2808000	AA14644	CHROMIUM	0	0.200		0.207	mg/L	103.5	
CCV	Q2808455		CHROMIUM	5.00			4.96	mg/L	99.2	
BLA01	Q2808439		CHROMIUM			<	0.000800	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							

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CHROMIUM ICP SW846-6010B M110.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		CHROMIUM	5.00			5.01	mg/L	100.2	
BLA01	Q2808440		CHROMIUM			<	0.000800	mg/L		
SER01	Q2808474	AA10294	CHROMIUM	0		BDL		mg/L		
CDL01	Q2808470		CHROMIUM	0.0100			0.0104	mg/L	104.0	
ICS-AB	Q2808450		CHROMIUM	0.500			0.489	mg/L	97.8	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

COBALT ICP SW846-6010B M111.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		COBALT	1			0.993	mg/L	99.3	
CDL01	Q2808471		COBALT	10			9.87	mg/L	98.7	
ICS-AB	Q2808449		COBALT	0.500			0.466	mg/L	93.2	
BLA02	Q2807997		COBALT			<	0.000800	mg/L		
LCS	Q2807998		COBALT	0.5			0.502	mg/L	100.4	
SER01	Q2808477	AA14644	COBALT	0		BDL		mg/L		
DUP02	Q2807999	AA14644	COBALT	0		BDL		mg/L		
SPI02	Q2808000	AA14644	COBALT	0	0.500		0.517	mg/L	103.4	
CCV	Q2808455		COBALT	5.00			4.94	mg/L	98.8	

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COBALT ICP SW846-6010B M111.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808439		COBALT			<	0.000800	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		COBALT	5.00			4.99	mg/L	99.8	
BLA01	Q2808440		COBALT			<	0.000800	mg/L		
SER01	Q2808474	AA10294	COBALT	0		BDL		mg/L		
CDL01	Q2808470		COBALT	0.0100			0.00934	mg/L	93.4	
ICS-AB	Q2808450		COBALT	0.500			0.465	mg/L	93.0	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

COPPER ICP SW846-6010B M112.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		COPPER	1			1.01	mg/L	101.0	
CDL01	Q2808471		COPPER	10			9.95	mg/L	99.5	
ICS-AB	Q2808449		COPPER	0.500			0.524	mg/L	104.8	
BLA02	Q2807997		COPPER			<	0.00400	mg/L		
LCS	Q2807998		COPPER	0.25			0.254	mg/L	101.6	
SER01	Q2808477	AA14644	COPPER	0		BDL		mg/L		

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COPPER ICP SW846-6010B M112.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DUP02	Q2807999	AA14644	COPPER	0		BDL		mg/L		
SPI02	Q2808000	AA14644	COPPER	0	0.250		0.266	mg/L	106.4	
CCV	Q2808455		COPPER	5.00			4.98	mg/L	99.6	
BLA01	Q2808439		COPPER			<	0.00400	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		COPPER	5.00			5.01	mg/L	100.2	
BLA01	Q2808440		COPPER			<	0.00400	mg/L		
SER01	Q2808474	AA10294	COPPER	0		BDL		mg/L		
CDL01	Q2808470		COPPER	0.01			0.0110	mg/L	110.0	
ICS-AB	Q2808450		COPPER	0.500			0.527	mg/L	105.4	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 O425.2
Prep : MICROEXTRACTION FOR EDB & DBCP SW846-8011

R624676 Analyst: C HIPSKIND Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: B WOOD Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2808326		Analytical Run: R624715							
LCS	Q2808327		Analytical Run: R624715							
SPI02	Q2808328		Analytical Run: R624715							
DPS02	Q2808329		Analytical Run: R624715							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624715							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624715							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624715							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624715							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624715							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624715							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624715							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624715							

R624715 Analyst: E WERNZ Run Date: 23-Apr-14 Instrument: GC/ECD
Analytical Reviewer: B WOOD Review Date: 28-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2808643		1,2-DIBROMOETHANE (EDB)							8.63
CAL01	Q2808643		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)							8.84

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EDB & DBCP BY MICRO-EXTRACTION AND GC/ECD SW846-8011 **O425.2**
Prep : MICROEXTRACTION FOR EDB & DBCP SW846-8011

R624715 Analyst: E WERNZ Run Date: 23-Apr-14
Analytical Reviewer: B WOOD Review Date: 28-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2808643		(1) 2-CHLOROBIPHENYL							3.34
ICV01	Q2808645		1,2-DIBROMOETHANE (EDB)	1.43			1.42	ug/L	99.3	
ICV01	Q2808645		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	1.43			1.59	ug/L	111.2	
ICV01	Q2808645		(1) 2-CHLOROBIPHENYL						132.2	
CCV	Q2808646		1,2-DIBROMOETHANE (EDB)	25.0			27.6	ug/L	110.4	
CCV	Q2808646		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	25.0			27.8	ug/L	111.2	
CCV	Q2808646		(1) 2-CHLOROBIPHENYL						103.9	
CDL01	Q2808653		1,2-DIBROMOETHANE (EDB)	0.0114			0.0104	ug/L	91.2	
CDL01	Q2808653		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.0114			0.0111	ug/L	97.4	
CDL01	Q2808653		(1) 2-CHLOROBIPHENYL						140.6	
ICV01	Q2808654		1,2-DIBROMOETHANE (EDB)	1.43			1.40	ug/L	97.9	
ICV01	Q2808654		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	1.43			1.65	ug/L	115.4	
ICV01	Q2808654		(1) 2-CHLOROBIPHENYL						134.7	
BLA02	Q2808326		1,2-DIBROMOETHANE (EDB)			BDL	0.02	ug/L		
BLA02	Q2808326		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)			BDL	0.02	ug/L		
BLA02	Q2808326		(1) 2-CHLOROBIPHENYL						138.8	
LCS	Q2808327		1,2-DIBROMOETHANE (EDB)	0.250			0.249	ug/L	99.6	
LCS	Q2808327		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0.250			0.275	ug/L	110.0	
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SPI02	Q2808328	AA14647	1,2-DIBROMOETHANE (EDB)	0	0.275		0.295	ug/L	107.3	
SPI02	Q2808328	AA14647	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	0.275		0.303	ug/L	110.2	
DPS02	Q2808329	AA14647	1,2-DIBROMOETHANE (EDB)	0	0.255		0.265	ug/L	103.9	3.2
DPS02	Q2808329	AA14647	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	0	0.255		0.283	ug/L	111.0	0.7
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
CCV	Q2808647		1,2-DIBROMOETHANE (EDB)	25.0			26.4	ug/L	105.6	
CCV	Q2808647		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	25.0			28.1	ug/L	112.4	
CCV	Q2808647		(1) 2-CHLOROBIPHENYL						116.6	
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808648		1,2-DIBROMOETHANE (EDB)	25.0			27.3	ug/L	109.2	
CCV	Q2808648		1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	25.0			27.5	ug/L	110.0	
CCV	Q2808648		(1) 2-CHLOROBIPHENYL						102.7	

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FIELD PH (AQUEOUS) SW846-9040C G607.0

R625023 Analyst: Run Date: 21-Apr-14 Instrument: FIELD
Analytical Reviewer: Review Date: 01-May-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							

FIELD SPECIFIC CONDUCTANCE SW846-9050A G604.0

R625023 Analyst: Run Date: 21-Apr-14 Instrument: FIELD
Analytical Reviewer: Review Date: 01-May-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							

FIELD TEMPERATURE SM2550 B 2000 G603.1

R625023 Analyst: Run Date: 21-Apr-14 Instrument: FIELD
Analytical Reviewer: Review Date: 01-May-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							

GROUNDWATER MONITORING WELL DATA SAS G600.0

R625023 Analyst: Run Date: 21-Apr-14 Instrument: FIELD
Analytical Reviewer: Review Date: 01-May-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							

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GROUNDWATER MONITORING WELL DATA SAS G600.0

R625023 Analyst: Run Date: 21-Apr-14
Analytical Reviewer: Review Date: 01-May-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							

IRON ICP SW846-6010B M115.3
Prep : FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3010A

R624634 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2808017		Analytical Run: R624695							
LCS	Q2808018		Analytical Run: R624695							
SPI02	Q2808020		Analytical Run: R624695							
DPS02	Q2808142		Analytical Run: R624695							
SAMPLE	AA14657	Rep: 0	Analytical Run: R624695							

Q2808020 1:5 Dilution.
Q2808020 Suspected matrix interference for this parameter. The matrix spike results were
Q2808020 outside control limit criteria. Results for this sample are estimated. (Na)
Q2808142 QC sample not homogeneous for this element. Matrix spikes had high RPD
Q2808142 Results are estimated for this sample. (Cr, Na, Zn)
Q2808142 Suspected matrix interference for this parameter. The matrix spike results were
Q2808142 outside control limit criteria. Results for this sample are estimated. (Zn)
Q2808142 1:5 Dilution.

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		IRON	1			1.01	mg/L	101.0	
CDL01	Q2808471		IRON	10			9.91	mg/L	99.1	
ICS-A	Q2808472		IRON	200			187	mg/L	93.5	
ICS-AB	Q2808449		IRON	200			188	mg/L	94.0	
BLA02	Q2808017		IRON			<	0.00800	mg/L		
LCS	Q2808018		IRON	2			1.98	mg/L	99.0	
SPI02	Q2808020	AA14596	IRON	0.542	2		2.56	mg/L	100.9	
DPS02	Q2808142	AA14596	IRON	0.542	2		2.85	mg/L	115.4	13.4
SER01	Q2808475	AA10385	IRON	1.24			2.11	mg/L		51.9
CCV	Q2808462		IRON	5.00			4.98	mg/L	99.6	
BLA01	Q2808446		IRON				0.0120	mg/L		
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
CCV	Q2808463		IRON	5.00			5.18	mg/L	103.6	
BLA01	Q2808447		IRON				0.0482	mg/L		
CDL01	Q2808470		IRON	0.02			0.0331	mg/L	165.5	
ICS-A	Q2808473		IRON	200			187	mg/L	93.5	
ICS-AB	Q2808450		IRON	200			187	mg/L	93.5	

Q2808020 1:5 Dilution.

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IRON ICP SW846-6010B M115.3
Prep : FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3010A

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
Q2808020	Suspected matrix interference for this parameter. The matrix spike results were									
Q2808020	outside control limit criteria. Results for this sample are estimated. (Na)									
Q2808142	QC sample not homogeneous for this element. Matrix spikes had high RPD									
Q2808142	Results are estimated for this sample. (Cr, Na, Zn)									
Q2808142	Suspected matrix interference for this parameter. The matrix spike results were									
Q2808142	outside control limit criteria. Results for this sample are estimated. (Zn)									
Q2808142	1:5 Dilution.									
Q2808474	1:5 Dilution.									
Q2808475	1:5 Dilution.									
Q2808475	There was possible matrix interference for Fe									
Q2808475	as indicated by the serial dilution results.									
Q2808477	1:5 Dilution.									
Q2808477	There was possible matrix interference for K and Na									
Q2808477	as indicated by the serial dilution results.									

IRON ICP SW846-6010B M115.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		IRON	1			1.01	mg/L	101.0	
CDL01	Q2808471		IRON	10			9.91	mg/L	99.1	
ICS-A	Q2808472		IRON	200			187	mg/L	93.5	
ICS-AB	Q2808449		IRON	200			188	mg/L	94.0	
BLA02	Q2807997		IRON			<	0.00800	mg/L		
LCS	Q2807998		IRON	1			1.02	mg/L	102.0	
SER01	Q2808477	AA14644	IRON	0.407		CNA	0.428	mg/L		
DUP02	Q2807999	AA14644	IRON	0.407			0.404	mg/L		0.7
SPI02	Q2808000	AA14644	IRON	0.407	1.00		1.44	mg/L	103.3	
CCV	Q2808455		IRON	5.00			4.96	mg/L	99.2	

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IRON ICP SW846-6010B M115.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808439		IRON			<	0.00800	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		IRON	5.00			5.05	mg/L	101.0	
BLA01	Q2808440		IRON			<	0.00800	mg/L		
SER01	Q2808474	AA10294	IRON	2.89			2.95	mg/L		2.0
CDL01	Q2808470		IRON	0.02			0.0331	mg/L	165.5	
ICS-A	Q2808473		IRON	200			187	mg/L	93.5	
ICS-AB	Q2808450		IRON	200			187	mg/L	93.5	

Q2808020 1:5 Dilution.
Q2808020 Suspected matrix interference for this parameter. The matrix spike results were
Q2808020 outside control limit criteria. Results for this sample are estimated. (Na)
Q2808142 QC sample not homogeneous for this element. Matrix spikes had high RPD
Q2808142 Results are estimated for this sample. (Cr, Na, Zn)
Q2808142 Suspected matrix interference for this parameter. The matrix spike results were
Q2808142 outside control limit criteria. Results for this sample are estimated. (Zn)
Q2808142 1:5 Dilution.
Q2808474 1:5 Dilution.
Q2808475 1:5 Dilution.
Q2808475 There was possible matrix interference for Fe
Q2808475 as indicated by the serial dilution results.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

LEAD ICP SW846-6010B M116.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							

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LEAD ICP SW846-6010B M116.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		LEAD	1			0.994	mg/L	99.4	
CDL01	Q2808471		LEAD	10			9.86	mg/L	98.6	
ICS-AB	Q2808449		LEAD	1.00			0.914	mg/L	91.4	
BLA02	Q2807997		LEAD			<	0.00200	mg/L		
LCS	Q2807998		LEAD	0.5			0.500	mg/L	100.0	
SER01	Q2808477	AA14644	LEAD	0		BDL		mg/L		
DUP02	Q2807999	AA14644	LEAD	0		BDL		mg/L		
SPI02	Q2808000	AA14644	LEAD	0	0.500		0.510	mg/L	102.0	
CCV	Q2808455		LEAD	5.00			4.99	mg/L	99.8	
BLA01	Q2808439		LEAD			<	0.00200	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		LEAD	5.00			5.07	mg/L	101.4	
BLA01	Q2808440		LEAD			<	0.00200	mg/L		
SER01	Q2808474	AA10294	LEAD	0		BDL		mg/L		
CDL01	Q2808470		LEAD	0.01			0.00937	mg/L	93.7	
ICS-AB	Q2808450		LEAD	1.00			0.913	mg/L	91.3	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

MERCURY CVAA SW846-7470A M120.1
Prep : MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

R624665 Analyst: S O'NEAL Run Date: 24-Apr-14 Instrument: PREP
Prep Reviewer: W WATNESS Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2808236		Analytical Run: R624729							
BLA02	Q2808237		Analytical Run: R624729							
SPI02	Q2808239		Analytical Run: R624729							
DPS02	Q2808240		Analytical Run: R624729							
SPI01	Q2808241		Analytical Run: R624729							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624729							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624729							

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MERCURY CVAA SW846-7470A M120.1

Prep : MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

R624665 Analyst: S O'NEAL Run Date: 24-Apr-14
Prep Reviewer: W WATNESS Review Date: 24-Apr-14

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14649	Rep: 0	Analytical Run: R624729							

R624666 Analyst: S O'NEAL Run Date: 24-Apr-14 Instrument: PREP
Prep Reviewer: W WATNESS Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2808242		Analytical Run: R624729							
BLA02	Q2808243		Analytical Run: R624729							
SPI02	Q2808245		Analytical Run: R624729							
DPS02	Q2808246		Analytical Run: R624729							
SPI01	Q2808247		Analytical Run: R624729							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624729							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624729							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624729							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624729							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624729							

R624729 Analyst: S O'NEAL Run Date: 24-Apr-14 Instrument: CVAA
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808694		MERCURY	0.002			0.00201	mg/L	100.5	
CDL01	Q2808706		MERCURY	0.0002			0.000162	mg/L	81.0	
LCS	Q2808236		MERCURY	0.002			0.00214	mg/L	107.0	
BLA02	Q2808237		MERCURY			<	0.000080	mg/L		
SER01	Q2808238	AA14556	MERCURY	0		BDL		mg/L		
SPI02	Q2808239	AA14556	MERCURY	0	0.001		0.00101	mg/L	101.0	
DPS02	Q2808240	AA14556	MERCURY	0	0.001		0.00103	mg/L	103.0	2.0
SPI01	Q2808241	AA14556	MERCURY	0	0.002		0.00199	mg/L	99.5	
CCV	Q2808696		MERCURY	0.003			0.00313	mg/L	104.3	
BLA01	Q2808702		MERCURY			<	0.000080	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
CDL01	Q2808707		MERCURY	0.0002			0.000159	mg/L	79.5	
CCV	Q2808697		MERCURY	0.003			0.00316	mg/L	105.3	
BLA01	Q2808703		MERCURY			<	0.000080	mg/L		
LCS	Q2808242		MERCURY	0.002			0.00210	mg/L	105.0	
BLA02	Q2808243		MERCURY			<	0.000080	mg/L		
SER01	Q2808244	AA14750	MERCURY	0		BDL		mg/L		
SPI02	Q2808245	AA14750	MERCURY	0	0.001		0.00104	mg/L	104.0	
DPS02	Q2808246	AA14750	MERCURY	0	0.001		0.00109	mg/L	109.0	4.7
SPI01	Q2808247	AA14750	MERCURY	0	0.002		0.00211	mg/L	105.5	
CCV	Q2808698		MERCURY	0.003			0.00312	mg/L	104.0	
BLA01	Q2808704		MERCURY			<	0.000080	mg/L		
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							

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MERCURY CVAA SW846-7470A M120.1
Prep : MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES SW846-7470A

R624729 Analyst: S O'NEAL Run Date: 24-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CDL01	Q2808708		MERCURY	0.0002			0.000158	mg/L	79.0	
CCV	Q2808699		MERCURY	0.003			0.00313	mg/L	104.3	
BLA01	Q2808705		MERCURY			<	0.000080	mg/L		

NICKEL ICP SW846-6010B M122.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		NICKEL	1			0.994	mg/L	99.4	
CDL01	Q2808471		NICKEL	10			9.88	mg/L	98.8	
ICS-AB	Q2808449		NICKEL	1.00			0.943	mg/L	94.3	
BLA02	Q2807997		NICKEL			<	0.00200	mg/L		
LCS	Q2807998		NICKEL	0.5			0.504	mg/L	100.8	
SER01	Q2808477	AA14644	NICKEL	0.0149		CNA	0.0159	mg/L		
DUP02	Q2807999	AA14644	NICKEL	0.0149		CNA	0.0153	mg/L		
SPI02	Q2808000	AA14644	NICKEL	0.0149	0.500		0.526	mg/L	102.2	
CCV	Q2808455		NICKEL	5.00			4.88	mg/L	97.6	
BLA01	Q2808439		NICKEL			<	0.00200	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		NICKEL	5.00			4.94	mg/L	98.8	

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NICKEL ICP SW846-6010B M122.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808440		NICKEL			<	0.00200	mg/L		
SER01	Q2808474	AA10294	NICKEL	0.00857		CNA	0.00544	mg/L		
CDL01	Q2808470		NICKEL	0.005			0.00445	mg/L	89.0	
ICS-AB	Q2808450		NICKEL	1.00			0.941	mg/L	94.1	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

NITRATE-NITROGEN BY ION CHROMATOGRAPHY SW846-9056 G310.5

R624664 Analyst: K VEST Run Date: 22-Apr-14 Instrument: IC
Analytical Reviewer: E WERNZ Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808208		NITROGEN, NITRATE			BDL	0.013	mg/L		
CCVL	Q2808209		NITROGEN, NITRATE	0.500			0.519	mg/L	103.8	
CCVH	Q2808210		NITROGEN, NITRATE	2.00			1.96	mg/L	98.0	
LFB01L	Q2808211		NITROGEN, NITRATE	0.500			0.502	mg/L	100.4	
LFB01H	Q2808212		NITROGEN, NITRATE	5.00			4.87	mg/L	97.4	
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
CCVL	Q2808216		NITROGEN, NITRATE	0.500			0.526	mg/L	105.2	
CCVH	Q2808217		NITROGEN, NITRATE	2.00			1.96	mg/L	98.0	
BLA01	Q2808218		NITROGEN, NITRATE			BDL	0.013	mg/L		
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SPI01	Q2808219	AA14653	NITROGEN, NITRATE	0.0459	0.500		0.558	mg/L	102.4	
DPS01	Q2808220	AA14653	NITROGEN, NITRATE	0.0459	0.500		0.553	mg/L	101.4	1.0
CCVL	Q2808221		NITROGEN, NITRATE	0.500			0.512	mg/L	102.4	
CCVH	Q2808222		NITROGEN, NITRATE	2.00			1.96	mg/L	98.0	
BLA01	Q2808223		NITROGEN, NITRATE			BDL	0.013	mg/L		
LFB01L	Q2808224		NITROGEN, NITRATE	0.500			0.505	mg/L	101.0	

SELENIUM ICP/MS SW846-6020 V128.3
Prep : ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

R624631 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2808005		Analytical Run: R624819							
LCS	Q2808006		Analytical Run: R624753							
DUP02	Q2808007		Analytical Run: R624753							
SPI02	Q2808008		Analytical Run: R624753							

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SELENIUM ICP/MS SW846-6020 V128.3
Prep : ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

R624631 Analyst: K KAMARA Run Date: 23-Apr-14
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14647	Rep: 0	Analytical Run: R624819							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624819							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624753							

R624753 Analyst: C WILLHITE Run Date: 24-Apr-14 Instrument: ICP/MS
Analytical Reviewer: S ENDERSEN Review Date: 25-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2808914		SELENIUM	1			1.01	ug/L	101.0	
ICV01	Q2808891		SELENIUM	50			51.6	ug/L	103.2	
CDL01	Q2808908		SELENIUM	2			2.22	ug/L	111.0	
ICS-A	Q2808909		SELENIUM	40			42.7	ug/L	106.8	
BLA02	Q2808005		SELENIUM			<	0.400	ug/L		
LCS	Q2808006		SELENIUM	40			43.2	ug/L	108.0	
SER01	Q2808911	AA14647	SELENIUM	1.64		CNA	2.88	ug/L		
DUP02	Q2808007	AA14647	SELENIUM	1.64		CNA	1.07	ug/L		
SPI02	Q2808008	AA14647	SELENIUM	1.64	40		42.1	ug/L	101.2	
CCV	Q2808901		SELENIUM	100			108	ug/L	108.0	
BLA01	Q2808894		SELENIUM			<	0.400	ug/L		
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808902		SELENIUM	100			110	ug/L	110.0	
BLA01	Q2808895		SELENIUM			<	0.400	ug/L		
SER01	Q2808912	AA14660	SELENIUM	0		CNA	1.48	ug/L		
ICS-A	Q2808917		SELENIUM	40			144	ug/L	360.0	

Q2808912 1:5 Dilution.
Q2808912 There was possible matrix interference for Ni
Q2808912 as indicated by the serial dilution results.
Q2808917 1:5 Dilution.

R624819 Analyst: C WILLHITE Run Date: 25-Apr-14 Instrument: ICP/MS
Analytical Reviewer: S ENDERSEN Review Date: 28-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2809440		SELENIUM	1			1.02	ug/L	102.0	
ICV01	Q2809427		SELENIUM	50			51.0	ug/L	102.0	
CDL01	Q2809437		SELENIUM	2			2.58	ug/L	129.0	
ICS-A	Q2809438		SELENIUM	40			38.7	ug/L	96.8	
CCV	Q2809433		SELENIUM	100			101	ug/L	101.0	

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Quality Assurance Report 66157

SELENIUM ICP/MS SW846-6020 V128.3
Prep : ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

R624819 Analyst: C WILLHITE Run Date: 25-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 28-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2809429		SELENIUM			<	0.400	ug/L		
BLA02	Q2808005		SELENIUM			<	0.400	ug/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
CCV	Q2809434		SELENIUM	100			108	ug/L	108.0	
BLA01	Q2809430		SELENIUM			<	0.400	ug/L		
CDL01	Q2809445		SELENIUM	1			2.71	ug/L	271.0	
ICS-A	Q2809444		SELENIUM	40			50.4	ug/L	126.0	
Q2809444	1:5 Dilution.									

SILVER ICP SW846-6010B M130.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		SILVER	0.5			0.514	mg/L	102.8	
CDL01	Q2808471		SILVER	2			1.99	mg/L	99.5	
ICS-AB	Q2808449		SILVER	0.2			0.223	mg/L	111.5	
BLA02	Q2807997		SILVER			<	0.000800	mg/L		
LCS	Q2807998		SILVER	0.05			0.0531	mg/L	106.2	
SER01	Q2808477	AA14644	SILVER	0		BDL		mg/L		
DUP02	Q2807999	AA14644	SILVER	0		BDL		mg/L		
SPI02	Q2808000	AA14644	SILVER	0	0.050		0.0552	mg/L	110.4	
CCV	Q2808455		SILVER	1.00			1.03	mg/L	103.0	
BLA01	Q2808439		SILVER			<	0.000800	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							

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SILVER ICP SW846-6010B M130.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		SILVER	1.00			1.04	mg/L	104.0	
BLA01	Q2808440		SILVER			<	0.000800	mg/L		
SER01	Q2808474	AA10294	SILVER	0		BDL		mg/L		
CDL01	Q2808470		SILVER	0.0100			0.0103	mg/L	103.0	
ICS-AB	Q2808450		SILVER	0.2			0.224	mg/L	112.0	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

SODIUM ICP SW846-6010B M131.3
Prep : FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3010A

R624634 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2808017		Analytical Run: R624695							
LCS	Q2808018		Analytical Run: R624695							
SPI02	Q2808020		Analytical Run: R624695							
DPS02	Q2808142		Analytical Run: R624695							
SAMPLE	AA14657	Rep: 0	Analytical Run: R624695							

Q2808020 1:5 Dilution.
Q2808020 Suspected matrix interference for this parameter. The matrix spike results were
Q2808020 outside control limit criteria. Results for this sample are estimated. (Na)
Q2808142 QC sample not homogeneous for this element. Matrix spikes had high RPD
Q2808142 Results are estimated for this sample. (Cr, Na, Zn)
Q2808142 Suspected matrix interference for this parameter. The matrix spike results were
Q2808142 outside control limit criteria. Results for this sample are estimated. (Zn)
Q2808142 1:5 Dilution.

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		SODIUM	20			19.6	mg/L	98.0	
CDL01	Q2808469		SODIUM	0.1			0.0855	mg/L	85.5	
BLA02	Q2808017		SODIUM			<	0.0400	mg/L		
LCS	Q2808018		SODIUM	200			199	mg/L	99.5	
SPI02	Q2808020	AA14596	SODIUM	493	200		607	mg/L	57.0	
DPS02	Q2808142	AA14596	SODIUM	493	200		675	mg/L	91.0	45.9
SER01	Q2808475	AA10385	SODIUM	37.7			34.3	mg/L		9.4
CCV	Q2808462		SODIUM	50			52.4	mg/L	104.8	
BLA01	Q2808446		SODIUM			<	0.0400	mg/L		
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
CCV	Q2808463		SODIUM	50			52.6	mg/L	105.2	

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Quality Assurance Report 66157

SODIUM ICP SW846-6010B M131.3
Prep : FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES SW846-3010A

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808447		SODIUM			<	0.0400	mg/L		
CDL01	Q2808470		SODIUM	0.1			0.0846	mg/L	84.6	
Q2808020	1:5 Dilution.									
Q2808020	Suspected matrix interference for this parameter. The matrix spike results were									
Q2808020	outside control limit criteria. Results for this sample are estimated. (Na)									
Q2808142	QC sample not homogeneous for this element. Matrix spikes had high RPD									
Q2808142	Results are estimated for this sample. (Cr, Na, Zn)									
Q2808142	Suspected matrix interference for this parameter. The matrix spike results were									
Q2808142	outside control limit criteria. Results for this sample are estimated. (Zn)									
Q2808142	1:5 Dilution.									
Q2808474	1:5 Dilution.									
Q2808475	1:5 Dilution.									
Q2808475	There was possible matrix interference for Fe									
Q2808475	as indicated by the serial dilution results.									
Q2808477	1:5 Dilution.									
Q2808477	There was possible matrix interference for K and Na									
Q2808477	as indicated by the serial dilution results.									

SODIUM ICP SW846-6010B M131.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		SODIUM	20			19.6	mg/L	98.0	
CDL01	Q2808469		SODIUM	0.1			0.0855	mg/L	85.5	
BLA02	Q2807997		SODIUM			<	0.0400	mg/L		
LCS	Q2807998		SODIUM	100			104	mg/L	104.0	
SER01	Q2808477	AA14644	SODIUM	47.9			43.3	mg/L		10.1
DUP02	Q2807999	AA14644	SODIUM	47.9			47.3	mg/L		1.3
SPI02	Q2808000	AA14644	SODIUM	47.9	100		168	mg/L	120.1	

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SODIUM ICP SW846-6010B M131.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2808455		SODIUM	50			52.7	mg/L	105.4	
BLA01	Q2808439		SODIUM			<	0.0400	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		SODIUM	50			53.2	mg/L	106.4	
BLA01	Q2808440		SODIUM			<	0.0400	mg/L		
SER01	Q2808474	AA10294	SODIUM	117			109	mg/L		7.1
CDL01	Q2808470		SODIUM	0.1			0.0846	mg/L	84.6	

Q2808020 1:5 Dilution.
Q2808020 Suspected matrix interference for this parameter. The matrix spike results were
Q2808020 outside control limit criteria. Results for this sample are estimated. (Na)
Q2808142 QC sample not homogeneous for this element. Matrix spikes had high RPD
Q2808142 Results are estimated for this sample. (Cr, Na, Zn)
Q2808142 Suspected matrix interference for this parameter. The matrix spike results were
Q2808142 outside control limit criteria. Results for this sample are estimated. (Zn)
Q2808142 1:5 Dilution.
Q2808474 1:5 Dilution.
Q2808475 1:5 Dilution.
Q2808475 There was possible matrix interference for Fe
Q2808475 as indicated by the serial dilution results.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

SULFATE BY ION CHROMATOGRAPHY SW846-9056 G310.7

R624664 Analyst: K VEST Run Date: 22-Apr-14 Instrument: IC
Analytical Reviewer: E WERNZ Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LFB01H	Q2808212		SULFATE	25.0			24.9	mg/L	99.6	
CCVL	Q2808221		SULFATE	2.50			2.58	mg/L	103.2	
CCVH	Q2808222		SULFATE	10.0			9.81	mg/L	98.1	
BLA01	Q2808223		SULFATE			BDL	0.05	mg/L		
LFB01L	Q2808224		SULFATE	2.50			2.54	mg/L	101.6	
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
SPI01	Q2808225	AA14657	SULFATE	247	62.5		309	mg/L	99.2	
DPS01	Q2808226	AA14657	SULFATE	247	62.5		311	mg/L	102.4	3.2
CCVL	Q2808227		SULFATE	2.50			2.52	mg/L	100.8	
CCVH	Q2808228		SULFATE	10.0			9.82	mg/L	98.2	
BLA01	Q2808229		SULFATE			BDL	0.05	mg/L		

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SULFATE BY ION CHROMATOGRAPHY SW846-9056 G310.7

R624664 Analyst: K VEST Run Date: 22-Apr-14
Analytical Reviewer: E WERNZ Review Date: 23-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LFB01L	Q2808235		SULFATE	2.50			2.58	mg/L	103.2	
Q2808225	1:25 Dilution.									
Q2808226	1:25 Dilution.									

THALLIUM ICP/MS SW846-6020 V134.3
Prep : ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

R624631 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2808005		Analytical Run: R624753							
LCS	Q2808006		Analytical Run: R624753							
DUP02	Q2808007		Analytical Run: R624753							
SPI02	Q2808008		Analytical Run: R624753							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624753							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624753							

R624753 Analyst: C WILLHITE Run Date: 24-Apr-14 Instrument: ICP/MS
Analytical Reviewer: S ENDERSEN Review Date: 25-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2808914		THALLIUM	0.1			0.0960	ug/L	96.0	
ICV01	Q2808891		THALLIUM	50			52.9	ug/L	105.8	
CDL01	Q2808908		THALLIUM	0.2			0.238	ug/L	119.0	
ICS-A	Q2808909		THALLIUM	40			44.0	ug/L	110.0	
CCV	Q2808900		THALLIUM	20			21.5	ug/L	107.5	
BLA01	Q2808893		THALLIUM			<	0.800	ug/L		
BLA02	Q2808005		THALLIUM			<	0.800	ug/L		
LCS	Q2808006		THALLIUM	40			43.6	ug/L	109.0	
SER01	Q2808911	AA14647	THALLIUM	0		BDL		ug/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
DUP02	Q2808007	AA14647	THALLIUM	0		BDL		ug/L		
SPI02	Q2808008	AA14647	THALLIUM	0	40		43.6	ug/L	109.0	
CCV	Q2808901		THALLIUM	20			21.8	ug/L	109.0	
BLA01	Q2808894		THALLIUM			<	0.800	ug/L		
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							

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THALLIUM ICP/MS SW846-6020 V134.3
Prep : ICP ACID DIGESTION OF AQUEOUS SAMPLES, TOTAL RECOVERABLE EPA 200.2 REV. 2.8

R624753 Analyst: C WILLHITE Run Date: 24-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 25-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2808902		THALLIUM	20			21.8	ug/L	109.0	
BLA01	Q2808895		THALLIUM			<	0.800	ug/L		
SER01	Q2808912	AA14660	THALLIUM	0		BDL		ug/L		
ICS-A	Q2808917		THALLIUM	40			39.7	ug/L	99.2	

Q2808912 1:5 Dilution.
Q2808912 There was possible matrix interference for Ni
Q2808912 as indicated by the serial dilution results.
Q2808917 1:5 Dilution.

TOTAL DISSOLVED SOLIDS SM2540 C 1997 G402.9

R624736 Analyst: A CORNWELL Run Date: 24-Apr-14
Analytical Reviewer: P SPENCE Review Date: 28-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808775		DISSOLVED SOLIDS			BDL	10	mg/L		
LFB01	Q2808776		DISSOLVED SOLIDS	500			490	mg/L	98.0	
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SPI01	Q2808777	AA14648	DISSOLVED SOLIDS	110	250		350	mg/L	96.0	
DPS01	Q2808778	AA14648	DISSOLVED SOLIDS	110	250		353	mg/L	97.2	1.2
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
DUP01	Q2808781	AA14810	DISSOLVED SOLIDS	490			495	mg/L		1.0
LFB01	Q2808782		DISSOLVED SOLIDS	500			485	mg/L	97.0	
BLA01	Q2808783		DISSOLVED SOLIDS			BDL	10	mg/L		

TOTAL ORGANIC CARBON SW846-9060A O401.0

R624709 Analyst: D DICKERSON Run Date: 23-Apr-14 Instrument: TOC
Analytical Reviewer: P SPENCE Review Date: 25-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808554		TOTAL ORGANIC CARBON (TOC)			BDL	0.5	mg/L		
CDL01	Q2808555		TOTAL ORGANIC CARBON (TOC)	1.00			0.823	mg/L	82.3	
ICV01	Q2808556		TOTAL ORGANIC CARBON (TOC)	12.5			12.2	mg/L	97.6	
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SPI01	Q2808557	AA14649	TOTAL ORGANIC CARBON (TOC)	0.774	12.5		12.7	mg/L	95.4	
DPS01	Q2808558	AA14649	TOTAL ORGANIC CARBON (TOC)	0.774	12.5		12.7	mg/L	95.4	0
CCVL	Q2808559		TOTAL ORGANIC CARBON (TOC)	5.00			4.93	mg/L	98.6	
BLA01	Q2808560		TOTAL ORGANIC CARBON (TOC)			BDL	0.5	mg/L		
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							

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Quality Assurance Report 66157

TOTAL ORGANIC CARBON SW846-9060A O401.0

R624709 Analyst: D DICKERSON Run Date: 23-Apr-14
Analytical Reviewer: P SPENCE Review Date: 25-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SPI01	Q2808561	AA14652	TOTAL ORGANIC CARBON (TOC)	1.16	12.5		12.9	mg/L	93.9	
DPS01	Q2808562	AA14652	TOTAL ORGANIC CARBON (TOC)	1.16	12.5		12.9	mg/L	93.9	0
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
CCVH	Q2808563		TOTAL ORGANIC CARBON (TOC)	15.0			14.2	mg/L	94.7	
BLA01	Q2808564		TOTAL ORGANIC CARBON (TOC)			BDL	0.5	mg/L		

R625094 Analyst: T DRIGGERS Run Date: 02-May-14 Instrument: TOC
Analytical Reviewer: P SPENCE Review Date: 05-May-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2811795		TOTAL ORGANIC CARBON (TOC)			BDL	0.5	mg/L		
CDL01	Q2811796		TOTAL ORGANIC CARBON (TOC)	1.00			0.949	mg/L	94.9	
ICV01	Q2811797		TOTAL ORGANIC CARBON (TOC)	12.5			11.7	mg/L	93.6	
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SPI01	Q2811798	AA15003	TOTAL ORGANIC CARBON (TOC)	2.42	12.5		13.5	mg/L	88.6	
DPS01	Q2811799	AA15003	TOTAL ORGANIC CARBON (TOC)	2.42	12.5		13.5	mg/L	88.6	0
CCVL	Q2811800		TOTAL ORGANIC CARBON (TOC)	5.00			4.84	mg/L	96.8	
BLA01	Q2811801		TOTAL ORGANIC CARBON (TOC)			BDL	0.5	mg/L		
CCVH	Q2811804		TOTAL ORGANIC CARBON (TOC)	15.0			13.6	mg/L	90.7	
ICV01	Q2811808		TOTAL ORGANIC CARBON (TOC)	12.5			11.7	mg/L	93.6	
ICV01	Q2811837		TOTAL ORGANIC CARBON (TOC)	12.5			11.3	mg/L	90.4	

TOTAL ORGANIC HALIDES (TOX) SW846-9020B O404.0

R624607 Analyst: KEYSTONE LABORATORIES, INC. Run Date: 14-May-14 Instrument: TOX
Analytical Reviewer: Review Date: 14-May-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							

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TOTAL SOLIDS DRIED AT 103-105 DEGREES C SM2540 B 1997 G401.6

R624734 Analyst: A CORNWELL Run Date: 24-Apr-14
Analytical Reviewer: T DRIGGERS Review Date: 25-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808762		SOLIDS			BDL	10	mg/L		
LFB01	Q2808763		SOLIDS	500			516	mg/L	103.2	
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
SPI01	Q2808764	AA14657	SOLIDS	263	250		532	mg/L	107.6	
DPS01	Q2808765	AA14657	SOLIDS	263	250		522	mg/L	103.6	3.8
LFB01	Q2808766		SOLIDS	500			510	mg/L	102.0	
BLA01	Q2808767		SOLIDS			BDL	10	mg/L		

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM2540 D 19TH ED G403.8

R624791 Analyst: A CORNWELL Run Date: 25-Apr-14
Analytical Reviewer: P SPENCE Review Date: 28-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2809226		SUSPENDED SOLIDS			BDL	1	mg/L		
LFB01	Q2809227		SUSPENDED SOLIDS	112			109	mg/L	97.3	
DUP01	Q2809238	AA14644	SUSPENDED SOLIDS	2			2	mg/L		0
SAMPLE	AA14657		See Certificate of Analysis, Rep: 0							
SPI01	Q2809239	AA14810	SUSPENDED SOLIDS	3	56		59	mg/L	100.0	
DPS01	Q2809240	AA14810	SUSPENDED SOLIDS	3	56		60	mg/L	101.8	1.8
LFB01	Q2809241		SUSPENDED SOLIDS	112			132	mg/L	117.8	
BLA01	Q2809242		SUSPENDED SOLIDS			BDL	1	mg/L		

TURBIDITY (NEPHELOMETRIC) EPA 180.1 G602.5

R624671 Analyst: J SMITH Run Date: 23-Apr-14
Analytical Reviewer: P SPENCE Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2808298		TURBIDITY				0.144	ntu		
ICV01	Q2808299		TURBIDITY	3.99			4.09	ntu	102.5	
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
DUP01	Q2808300	AA14648	TURBIDITY	6.11			6.21	ntu		1.6
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
CCV	Q2808301		TURBIDITY	10.0			9.13	ntu	91.3	
BLA01	Q2808306		TURBIDITY				0.134	ntu		

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VANADIUM ICP SW846-6010B **M138.3**
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		VANADIUM	1			1.00	mg/L	100.0	
CDL01	Q2808471		VANADIUM	10			9.92	mg/L	99.2	
ICS-AB	Q2808449		VANADIUM	0.500			0.501	mg/L	100.2	
BLA02	Q2807997		VANADIUM			<	0.000800	mg/L		
LCS	Q2807998		VANADIUM	0.5			0.506	mg/L	101.2	
SER01	Q2808477	AA14644	VANADIUM	0		BDL		mg/L		
DUP02	Q2807999	AA14644	VANADIUM	0		BDL		mg/L		
SPI02	Q2808000	AA14644	VANADIUM	0	0.500		0.524	mg/L	104.8	
CCV	Q2808455		VANADIUM	2			2.04	mg/L	102.0	
BLA01	Q2808439		VANADIUM			<	0.000800	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		VANADIUM	2			2.06	mg/L	103.0	
BLA01	Q2808440		VANADIUM			<	0.000800	mg/L		
SER01	Q2808474	AA10294	VANADIUM	0		BDL		mg/L		
CDL01	Q2808470		VANADIUM	0.0100			0.00967	mg/L	96.7	
ICS-AB	Q2808450		VANADIUM	0.500			0.503	mg/L	100.6	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

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Quality Assurance Report 66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B O510.6

R624829 Analyst: H WILLIAMS Run Date: 24-Apr-14 Instrument: GC/MS VOA
Analytical Reviewer: R SHAMP Review Date: 28-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2807330		Analysis Date/Time: 18-Apr-14 09:01							
CAL01	Q2807330		BENZENE	0.9580						2.8
CAL01	Q2807330		BROMOCHLOROMETHANE	0.1080						6.1
CAL01	Q2807330		BROMODICHLOROMETHANE	0.3007						2.3
CAL01	Q2807330		BROMOFORM	0.4105						6.7
CAL01	Q2807330		BROMOMETHANE			QDR				0.993
CAL01	Q2807330		CARBON TETRACHLORIDE	0.2262						7.6
CAL01	Q2807330		CHLOROBENZENE	1.9915						2.4
CAL01	Q2807330		DIBROMOCHLOROMETHANE	0.6445						3.1
CAL01	Q2807330		CHLOROETHANE			QDR				0.999
CAL01	Q2807330		CHLOROFORM	0.3833						4.2
CAL01	Q2807330		CHLOROMETHANE	0.2409						14.1
CAL01	Q2807330		DIBROMOMETHANE	0.1304						2.7
CAL01	Q2807330		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.6329						3.1
CAL01	Q2807330		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.6566						3.3
CAL01	Q2807330		1,1-DICHLOROETHANE	0.3682						6
CAL01	Q2807330		1,2-DICHLOROETHANE	0.3321						5.2
CAL01	Q2807330		1,1-DICHLOROETHENE	0.2095						3
CAL01	Q2807330		CIS-1,2-DICHLOROETHENE	0.2492						4.3
CAL01	Q2807330		TRANS-1,2-DICHLOROETHENE	0.2259						5.5
CAL01	Q2807330		1,2-DICHLOROPROPANE	0.2333						4.1
CAL01	Q2807330		ETHYL BENZENE	1.0335						2.1
CAL01	Q2807330		DICHLOROMETHANE (METHYLENE CHLORIDE)			LIN				1.000
CAL01	Q2807330		METHYL ETHYL KETONE	0.0385						7.3
CAL01	Q2807330		STYRENE	2.2444						2.4
CAL01	Q2807330		1,1,1,2-TETRACHLOROETHANE	0.6522						2.5
CAL01	Q2807330		1,1,2,2-TETRACHLOROETHANE	1.0360						9.7
CAL01	Q2807330		TETRACHLOROETHENE	0.6704						2.9
CAL01	Q2807330		TOLUENE	1.0079						3
CAL01	Q2807330		1,1,1-TRICHLOROETHANE	0.2699						6.3
CAL01	Q2807330		1,1,2-TRICHLOROETHANE	0.2104						3.7
CAL01	Q2807330		TRICHLOROETHENE	0.2553						5.7
CAL01	Q2807330		TRICHLOROFLUOROMETHANE	0.2607						4.7
CAL01	Q2807330		1,2,3-TRICHLOROPROPANE	0.3321						8.2
CAL01	Q2807330		VINYL CHLORIDE	0.2334						4.2
CAL01	Q2807330		CARBON DISULFIDE	0.5849						3.3
CAL01	Q2807330		ACRYLONITRILE	0.0711						5.7
CAL01	Q2807330		VINYL ACETATE	0.6885						3.8
CAL01	Q2807330		ACETONE (2-PROPANONE)	0.0973						11
CAL01	Q2807330		ACROLEIN	0.0249						6.2
CAL01	Q2807330		4-METHYL-2-PENTANONE	0.3662						9.3
CAL01	Q2807330		2-HEXANONE	0.7621						9.8
CAL01	Q2807330		IODOMETHANE	0.3164						4.4
CAL01	Q2807330		CIS-1,3-DICHLOROPROPENE	0.3854						5.8
CAL01	Q2807330		TRANS-1,3-DICHLOROPROPENE	0.3322						5.6
CAL01	Q2807330		TRANS-1,4-DICHLORO-2-BUTENE	0.3211						5.5

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Quality Assurance Report 66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B **O510.6**

R624829 Analyst: H WILLIAMS Run Date: 24-Apr-14
Analytical Reviewer: R SHAMP Review Date: 28-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2807330		DICHLOROETHANE-D4	0.2819						6
CAL01	Q2807330		TOLUENE-D8	0.9067						2.2
CAL01	Q2807330		4-BROMOFLUOROBENZENE	0.8517						1.2
CAL01	Q2807330		DIBROMOFLUOROMETHANE	0.2267						2.5
ICV01	Q2807331		Analysis Date/Time: 18-Apr-14 11:34							
ICV01	Q2807331		BENZENE	10			10.3	ug/L	103	
ICV01	Q2807331		BROMOCHLOROMETHANE	10			11.4	ug/L	114	
ICV01	Q2807331		BROMODICHLOROMETHANE	10			9.92	ug/L	99.2	
ICV01	Q2807331		BROMOFORM	10			10.6	ug/L	106	
ICV01	Q2807331		BROMOMETHANE	10			10.6	ug/L	106	
ICV01	Q2807331		CARBON TETRACHLORIDE	10			11.9	ug/L	119	
ICV01	Q2807331		CHLOROBENZENE	10			10.2	ug/L	102	
ICV01	Q2807331		DIBROMOCHLOROMETHANE	10			10.4	ug/L	104	
ICV01	Q2807331		CHLOROETHANE	10			11	ug/L	110	
ICV01	Q2807331		CHLOROFORM	10			11.2	ug/L	112	
ICV01	Q2807331		CHLOROMETHANE	10			10.2	ug/L	102	
ICV01	Q2807331		DIBROMOMETHANE	10			11.3	ug/L	113	
ICV01	Q2807331		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	10			10.3	ug/L	103	
ICV01	Q2807331		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	10			10.8	ug/L	108	
ICV01	Q2807331		1,1-DICHLOROETHANE	10			11.7	ug/L	117	
ICV01	Q2807331		1,2-DICHLOROETHANE	10			10.6	ug/L	106	
ICV01	Q2807331		1,1-DICHLOROETHENE	10			11.3	ug/L	113	
ICV01	Q2807331		CIS-1,2-DICHLOROETHENE	10			10.3	ug/L	103	
ICV01	Q2807331		TRANS-1,2-DICHLOROETHENE	10			10.8	ug/L	108	
ICV01	Q2807331		1,2-DICHLOROPROPANE	10			9.92	ug/L	99.2	
ICV01	Q2807331		ETHYL BENZENE	10			10.9	ug/L	109	
ICV01	Q2807331		DICHLOROMETHANE (METHYLENE CHLORIDE)	10			9.71	ug/L	97.1	
ICV01	Q2807331		METHYL ETHYL KETONE	50			47.7	ug/L	95.4	
ICV01	Q2807331		STYRENE	10			10.6	ug/L	106	
ICV01	Q2807331		1,1,1,2-TETRACHLOROETHANE	10			10.3	ug/L	103	
ICV01	Q2807331		1,1,2,2-TETRACHLOROETHANE	10			10.1	ug/L	101	
ICV01	Q2807331		TETRACHLOROETHENE	10			12.2	ug/L	122	
ICV01	Q2807331		TOLUENE	10			10.2	ug/L	102	
ICV01	Q2807331		1,1,1-TRICHLOROETHANE	10			12.2	ug/L	122	
ICV01	Q2807331		1,1,2-TRICHLOROETHANE	10			10.1	ug/L	101	
ICV01	Q2807331		TRICHLOROETHENE	10			10.7	ug/L	107	
ICV01	Q2807331		TRICHLOROFLUOROMETHANE	10			11.1	ug/L	111	
ICV01	Q2807331		1,2,3-TRICHLOROPROPANE	10			10.7	ug/L	107	
ICV01	Q2807331		VINYL CHLORIDE	10			10.6	ug/L	106	
ICV01	Q2807331		CARBON DISULFIDE	10			10.1	ug/L	101	
ICV01	Q2807331		ACRYLONITRILE	100			93.2	ug/L	93.2	
ICV01	Q2807331		VINYL ACETATE	10			9.29	ug/L	92.9	
ICV01	Q2807331		ACETONE (2-PROPANONE)	50			48.2	ug/L	96.4	
ICV01	Q2807331		ACROLEIN	100			95.1	ug/L	95.1	
ICV01	Q2807331		4-METHYL-2-PENTANONE	50			47.7	ug/L	95.4	
ICV01	Q2807331		2-HEXANONE	50			50.1	ug/L	100.2	

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Quality Assurance Report

66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B

O510.6

R624829 Analytical
Analyst: H WILLIAMS
Reviewer: R SHAMP
Run Date: 24-Apr-14
Review Date: 28-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2807331		IODOMETHANE	10			10.3	ug/L	103	
ICV01	Q2807331		CIS-1,3-DICHLOROPROPENE	10			9.43	ug/L	94.3	
ICV01	Q2807331		TRANS-1,3-DICHLOROPROPENE	10			9.97	ug/L	99.7	
ICV01	Q2807331		TRANS-1,4-DICHLORO-2-BUTENE	20			18.4	ug/L	92	
CCVD	Q2809489		Analysis Date/Time: 24-Apr-14 07:03							
CCVD	Q2809489		BENZENE	0.9580			1.0923			14
CCVD	Q2809489		BROMOCHLOROMETHANE	0.1080			0.1121			3.8
CCVD	Q2809489		BROMODICHLOROMETHANE	0.3007			0.2969			1.3
CCVD	Q2809489		BROMOFORM	0.4105			0.4423			7.7
CCVD	Q2809489		BROMOMETHANE	10.0		QDR	8.73			12.7
CCVD	Q2809489		CARBON TETRACHLORIDE	0.2262			0.2591			14.5
CCVD	Q2809489		CHLOROBENZENE	1.9915			2.1576			8.3
CCVD	Q2809489		DIBROMOCHLOROMETHANE	0.6445			0.6980			8.3
CCVD	Q2809489		CHLOROETHANE	10.0		QDR	9.08			9.2
CCVD	Q2809489		CHLOROFORM	0.3833			0.3849			0.4
CCVD	Q2809489		CHLOROMETHANE	0.2409			0.2377			1.3
CCVD	Q2809489		DIBROMOMETHANE	0.1304			0.1363			4.5
CCVD	Q2809489		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.6329			1.7362			6.3
CCVD	Q2809489		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.6566			1.8171			9.7
CCVD	Q2809489		1,1-DICHLOROETHANE	0.3682			0.3869			5.1
CCVD	Q2809489		1,2-DICHLOROETHANE	0.3321			0.3479			4.8
CCVD	Q2809489		1,1-DICHLOROETHENE	0.2095			0.2064			1.5
CCVD	Q2809489		CIS-1,2-DICHLOROETHENE	0.2492			0.2598			4.3
CCVD	Q2809489		TRANS-1,2-DICHLOROETHENE	0.2259			0.2242			0.8
CCVD	Q2809489		1,2-DICHLOROPROPANE	0.2333			0.2439			4.5
CCVD	Q2809489		ETHYL BENZENE	1.0335			1.1353			9.9
CCVD	Q2809489		DICHLOROMETHANE (METHYLENE CHLORIDE)	10.0		LIN	9.68			3.2
CCVD	Q2809489		METHYL ETHYL KETONE	0.0385			0.0503			30.6
CCVD	Q2809489		STYRENE	2.2444			2.4220			7.9
CCVD	Q2809489		1,1,1,2-TETRACHLOROETHANE	0.6522			0.6669			2.3
CCVD	Q2809489		1,1,2,2-TETRACHLOROETHANE	1.0360			1.0647			2.8
CCVD	Q2809489		TETRACHLOROETHENE	0.6704			0.8163			21.8
CCVD	Q2809489		TOLUENE	1.0079			1.1051			9.6
CCVD	Q2809489		1,1,1-TRICHLOROETHANE	0.2699			0.2707			0.3
CCVD	Q2809489		1,1,2-TRICHLOROETHANE	0.2104			0.2230			6
CCVD	Q2809489		TRICHLOROETHENE	0.2553			0.2741			7.4
CCVD	Q2809489		TRICHLOROFLUOROMETHANE	0.2607			0.2529			3
CCVD	Q2809489		1,2,3-TRICHLOROPROPANE	0.3321			0.3771			13.6
CCVD	Q2809489		VINYL CHLORIDE	0.2334			0.2276			2.5
CCVD	Q2809489		CARBON DISULFIDE	0.5849			0.5691			2.7
CCVD	Q2809489		ACRYLONITRILE	0.0711			0.0307			56.8
CCVD	Q2809489		VINYL ACETATE	0.6885			0.6536			5.1
CCVD	Q2809489		ACETONE (2-PROPANONE)	0.0973			0.1581			62.5
CCVD	Q2809489		ACROLEIN	0.0249			0.0080			67.9
CCVD	Q2809489		4-METHYL-2-PENTANONE	0.3662			0.4112			12.3
CCVD	Q2809489		2-HEXANONE	0.7621			0.9447			24

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Quality Assurance Report 66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B **O510.6**

R624829 Analyst: H WILLIAMS Run Date: 24-Apr-14
Analytical Reviewer: R SHAMP Review Date: 28-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCVD	Q2809489		IODOMETHANE	0.3164			0.3172			0.3
CCVD	Q2809489		CIS-1,3-DICHLOROPROPENE	0.3854			0.3790			1.7
CCVD	Q2809489		TRANS-1,3-DICHLOROPROPENE	0.3322			0.3266			1.7
CCVD	Q2809489		TRANS-1,4-DICHLORO-2-BUTENE	0.3211			0.3934			22.5
CCVD	Q2809489		DICHLOROETHANE-D4	0.2819			0.2827			0.3
CCVD	Q2809489		TOLUENE-D8	0.9067			0.9255			2.1
CCVD	Q2809489		4-BROMOFLUOROBENZENE	0.8517			0.8815			3.5
CCVD	Q2809489		DIBROMOFLUOROMETHANE	0.2267			0.2183			3.7
BLA01	Q2809490		Analysis Date/Time: 24-Apr-14 08:28							
BLA01	Q2809490		BENZENE			BDL	0.24	ug/L		
BLA01	Q2809490		BROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2809490		BROMODICHLOROMETHANE			BDL	0.28	ug/L		
BLA01	Q2809490		BROMOFORM			BDL	0.33	ug/L		
BLA01	Q2809490		BROMOMETHANE			BDL	0.48	ug/L		
BLA01	Q2809490		CARBON TETRACHLORIDE			BDL	0.33	ug/L		
BLA01	Q2809490		CHLOROBENZENE			BDL	0.28	ug/L		
BLA01	Q2809490		DIBROMOCHLOROMETHANE			BDL	0.32	ug/L		
BLA01	Q2809490		CHLOROETHANE			BDL	0.45	ug/L		
BLA01	Q2809490		CHLOROFORM			BDL	0.22	ug/L		
BLA01	Q2809490		CHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2809490		DIBROMOMETHANE			BDL	0.27	ug/L		
BLA01	Q2809490		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)			BDL	0.28	ug/L		
BLA01	Q2809490		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)			BDL	0.29	ug/L		
BLA01	Q2809490		1,1-DICHLOROETHANE			BDL	0.31	ug/L		
BLA01	Q2809490		1,2-DICHLOROETHANE			BDL	0.30	ug/L		
BLA01	Q2809490		1,1-DICHLOROETHENE			BDL	0.39	ug/L		
BLA01	Q2809490		CIS-1,2-DICHLOROETHENE			BDL	0.24	ug/L		
BLA01	Q2809490		TRANS-1,2-DICHLOROETHENE			BDL	0.40	ug/L		
BLA01	Q2809490		1,2-DICHLOROPROPANE			BDL	0.26	ug/L		
BLA01	Q2809490		ETHYL BENZENE			BDL	0.26	ug/L		
BLA01	Q2809490		DICHLOROMETHANE (METHYLENE CHLORIDE)			BDL	1.0	ug/L		
BLA01	Q2809490		METHYL ETHYL KETONE			BDL	1.3	ug/L		
BLA01	Q2809490		STYRENE			BDL	0.21	ug/L		
BLA01	Q2809490		1,1,1,2-TETRACHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2809490		1,1,2,2-TETRACHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2809490		TETRACHLOROETHENE			BDL	0.60	ug/L		
BLA01	Q2809490		TOLUENE			BDL	0.22	ug/L		
BLA01	Q2809490		1,1,1-TRICHLOROETHANE			BDL	0.40	ug/L		
BLA01	Q2809490		1,1,2-TRICHLOROETHANE			BDL	0.29	ug/L		
BLA01	Q2809490		TRICHLOROETHENE			BDL	0.41	ug/L		
BLA01	Q2809490		TRICHLOROFLUOROMETHANE			BDL	0.50	ug/L		
BLA01	Q2809490		1,2,3-TRICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q2809490		VINYL CHLORIDE			BDL	0.26	ug/L		
BLA01	Q2809490		XYLENES (O/M/P-XYLENE)			BDL	0.81	ug/L		
BLA01	Q2809490		CARBON DISULFIDE			BDL	0.31	ug/L		
BLA01	Q2809490		ACRYLONITRILE			BDL	5.0	ug/L		

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VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B O510.6

R624829 Analyst: H WILLIAMS Run Date: 24-Apr-14
Analytical Reviewer: R SHAMP Review Date: 28-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2809490		VINYL ACETATE			BDL	1.0	ug/L		
BLA01	Q2809490		ACETONE (2-PROPANONE)			BDL	1.6	ug/L		
BLA01	Q2809490		ACROLEIN			BDL	25.	ug/L		
BLA01	Q2809490		4-METHYL-2-PENTANONE			BDL	5.0	ug/L		
BLA01	Q2809490		2-HEXANONE			BDL	5.0	ug/L		
BLA01	Q2809490		IODOMETHANE			BDL	1.0	ug/L		
BLA01	Q2809490		CIS-1,3-DICHLOROPROPENE			BDL	0.28	ug/L		
BLA01	Q2809490		TRANS-1,3-DICHLOROPROPENE			BDL	0.20	ug/L		
BLA01	Q2809490		TRANS-1,4-DICHLORO-2-BUTENE			BDL	1.0	ug/L		
BLA01	Q2809490		DICHLOROETHANE-D4						97	
BLA01	Q2809490		TOLUENE-D8						96	
BLA01	Q2809490		4-BROMOFLUOROBENZENE						101	
BLA01	Q2809490		DIBROMOFLUOROMETHANE						98	
LCS01	Q2809491		Analysis Date/Time: 24-Apr-14 08:54							
LCS01	Q2809491		BENZENE	10			10.2	ug/L	102	
LCS01	Q2809491		BROMOCHLOROMETHANE	10			11.3	ug/L	113	
LCS01	Q2809491		BROMODICHLOROMETHANE	10			9.98	ug/L	99.8	
LCS01	Q2809491		BROMOFORM	10			10.3	ug/L	103	
LCS01	Q2809491		BROMOMETHANE	10			9.83	ug/L	98.3	
LCS01	Q2809491		CARBON TETRACHLORIDE	10			12.6	ug/L	126	
LCS01	Q2809491		CHLOROBENZENE	10			10.3	ug/L	103	
LCS01	Q2809491		DIBROMOCHLOROMETHANE	10			10.2	ug/L	102	
LCS01	Q2809491		CHLOROETHANE	10			10.4	ug/L	104	
LCS01	Q2809491		CHLOROFORM	10			10.7	ug/L	107	
LCS01	Q2809491		CHLOROMETHANE	10			9.3	ug/L	93	
LCS01	Q2809491		DIBROMOMETHANE	10			11.2	ug/L	112	
LCS01	Q2809491		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	10			10.2	ug/L	102	
LCS01	Q2809491		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	10			10.6	ug/L	106	
LCS01	Q2809491		1,1-DICHLOROETHANE	10			11.3	ug/L	113	
LCS01	Q2809491		1,2-DICHLOROETHANE	10			10.2	ug/L	102	
LCS01	Q2809491		1,1-DICHLOROETHENE	10			10.1	ug/L	101	
LCS01	Q2809491		CIS-1,2-DICHLOROETHENE	10			10.1	ug/L	101	
LCS01	Q2809491		TRANS-1,2-DICHLOROETHENE	10			10.4	ug/L	104	
LCS01	Q2809491		1,2-DICHLOROPROPANE	10			10.1	ug/L	101	
LCS01	Q2809491		ETHYL BENZENE	10			11	ug/L	110	
LCS01	Q2809491		DICHLOROMETHANE (METHYLENE CHLORIDE)	10			9.51	ug/L	95.1	
LCS01	Q2809491		METHYL ETHYL KETONE	50			49	ug/L	98	
LCS01	Q2809491		STYRENE	10			10.3	ug/L	103	
LCS01	Q2809491		1,1,1,2-TETRACHLOROETHANE	10			9.97	ug/L	99.7	
LCS01	Q2809491		1,1,2,2-TETRACHLOROETHANE	10			10.4	ug/L	104	
LCS01	Q2809491		TETRACHLOROETHENE	10			12.5	ug/L	125	
LCS01	Q2809491		TOLUENE	10			10.2	ug/L	102	
LCS01	Q2809491		1,1,1-TRICHLOROETHANE	10			11.4	ug/L	114	
LCS01	Q2809491		1,1,2-TRICHLOROETHANE	10			10.3	ug/L	103	
LCS01	Q2809491		TRICHLOROETHENE	10			10.4	ug/L	104	
LCS01	Q2809491		TRICHLOROFLUOROMETHANE	10			9.98	ug/L	99.8	

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VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B **O510.6**

R624829 Analyst: H WILLIAMS Run Date: 24-Apr-14
Analytical Reviewer: R SHAMP Review Date: 28-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS01	Q2809491		1,2,3-TRICHLOROPROPANE	10			10.2	ug/L	102	
LCS01	Q2809491		VINYL CHLORIDE	10			9.77	ug/L	97.7	
LCS01	Q2809491		XYLENES (O/M/P-XYLENE)	30			31.6	ug/L	105.3	
LCS01	Q2809491		CARBON DISULFIDE	10			9.4	ug/L	94	
LCS01	Q2809491		ACRYLONITRILE	100			75.9	ug/L	75.9	
LCS01	Q2809491		VINYL ACETATE	10			8.63	ug/L	86.3	
LCS01	Q2809491		ACETONE (2-PROPANONE)	50			48.5	ug/L	97	
LCS01	Q2809491		ACROLEIN	100			56.7	ug/L	56.7	
LCS01	Q2809491		4-METHYL-2-PENTANONE	50			49.4	ug/L	98.8	
LCS01	Q2809491		2-HEXANONE	50			53.1	ug/L	106.2	
LCS01	Q2809491		IODOMETHANE	10			9.73	ug/L	97.3	
LCS01	Q2809491		CIS-1,3-DICHLOROPROPENE	10			8.83	ug/L	88.3	
LCS01	Q2809491		TRANS-1,3-DICHLOROPROPENE	10			9.28	ug/L	92.8	
LCS01	Q2809491		TRANS-1,4-DICHLORO-2-BUTENE	20			18.3	ug/L	91.5	
SPI01	Q2809492	AA14358	Analysis Date/Time: 24-Apr-14 14:24							
SPI01	Q2809492	AA14358	BENZENE	0	10		11.2	ug/L	112	
SPI01	Q2809492	AA14358	BROMOCHLOROMETHANE	0	10		10.4	ug/L	104	
SPI01	Q2809492	AA14358	BROMODICHLOROMETHANE	0	10		9.91	ug/L	99.1	
SPI01	Q2809492	AA14358	BROMOFORM	0	10		8.34	ug/L	83.4	
SPI01	Q2809492	AA14358	BROMOMETHANE	0	10		9.73	ug/L	97.3	
SPI01	Q2809492	AA14358	CARBON TETRACHLORIDE	0	10		11.4	ug/L	114	
SPI01	Q2809492	AA14358	CHLOROBENZENE	0	10		11.3	ug/L	113	
SPI01	Q2809492	AA14358	DIBROMOCHLOROMETHANE	0	10		9.62	ug/L	96.2	
SPI01	Q2809492	AA14358	CHLOROETHANE	0	10		10.6	ug/L	106	
SPI01	Q2809492	AA14358	CHLOROFORM	0	10		10.7	ug/L	107	
SPI01	Q2809492	AA14358	CHLOROMETHANE	0	10		9.67	ug/L	96.7	
SPI01	Q2809492	AA14358	DIBROMOMETHANE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10		10.5	ug/L	105	
SPI01	Q2809492	AA14358	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10		10.8	ug/L	108	
SPI01	Q2809492	AA14358	1,1-DICHLOROETHANE	0	10		11.2	ug/L	112	
SPI01	Q2809492	AA14358	1,2-DICHLOROETHANE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	1,1-DICHLOROETHENE	0	10		10.3	ug/L	103	
SPI01	Q2809492	AA14358	CIS-1,2-DICHLOROETHENE	0	10		11.2	ug/L	112	
SPI01	Q2809492	AA14358	TRANS-1,2-DICHLOROETHENE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	1,2-DICHLOROPROPANE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	ETHYL BENZENE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10		10.7	ug/L	107	
SPI01	Q2809492	AA14358	METHYL ETHYL KETONE	0	50		60.9	ug/L	121.8	
SPI01	Q2809492	AA14358	STYRENE	0	10		9.59	ug/L	95.9	
SPI01	Q2809492	AA14358	1,1,1,2-TETRACHLOROETHANE	0	10		9.85	ug/L	98.5	
SPI01	Q2809492	AA14358	1,1,2,2-TETRACHLOROETHANE	0	10		10	ug/L	100	
SPI01	Q2809492	AA14358	TETRACHLOROETHENE	0	10		11.9	ug/L	119	
SPI01	Q2809492	AA14358	TOLUENE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	1,1,1-TRICHLOROETHANE	0	10		10.7	ug/L	107	
SPI01	Q2809492	AA14358	1,1,2-TRICHLOROETHANE	0	10		11.3	ug/L	113	
SPI01	Q2809492	AA14358	TRICHLOROETHENE	0	10		11.9	ug/L	119	

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O510.6

R624829 Analyst: H WILLIAMS
Analytical Reviewer: R SHAMP
Run Date: 24-Apr-14
Review Date: 28-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI01	Q2809492	AA14358	TRICHLOROFLUOROMETHANE	0	10		9.67	ug/L	96.7	
SPI01	Q2809492	AA14358	1,2,3-TRICHLOROPROPANE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	VINYL CHLORIDE	0	10		10	ug/L	100	
SPI01	Q2809492	AA14358	XYLENES (O/M/P-XYLENE)	0	30		31.8	ug/L	106.0	
SPI01	Q2809492	AA14358	CARBON DISULFIDE	0	10		8.39	ug/L	83.9	
SPI01	Q2809492	AA14358	ACRYLONITRILE	0	100		62.1	ug/L	62.1	
SPI01	Q2809492	AA14358	VINYL ACETATE	0	10		7.69	ug/L	76.9	
SPI01	Q2809492	AA14358	ACETONE (2-PROPANONE)	0	50	!	69.4	ug/L	138.8	
SPI01	Q2809492	AA14358	ACROLEIN	0	100		32.5	ug/L	32.5	
SPI01	Q2809492	AA14358	4-METHYL-2-PENTANONE	0	50	!	55.5	ug/L	111	
SPI01	Q2809492	AA14358	2-HEXANONE	0	50	!	60.7	ug/L	121.4	
SPI01	Q2809492	AA14358	IODOMETHANE	0	10		11.1	ug/L	111	
SPI01	Q2809492	AA14358	CIS-1,3-DICHLOROPROPENE	0	10		9.2	ug/L	92	
SPI01	Q2809492	AA14358	TRANS-1,3-DICHLOROPROPENE	0	10		9	ug/L	90	
SPI01	Q2809492	AA14358	TRANS-1,4-DICHLORO-2-BUTENE	0	20		12.8	ug/L	64	
DPS01	Q2809493	AA14358	Analysis Date/Time: 24-Apr-14 14:49							
DPS01	Q2809493	AA14358	BENZENE	0	10		10.2	ug/L	101.7	9.4
DPS01	Q2809493	AA14358	BROMOCHLOROMETHANE	0	10		10.5	ug/L	105.1	1.1
DPS01	Q2809493	AA14358	BROMODICHLOROMETHANE	0	10		9.16	ug/L	91.6	7.9
DPS01	Q2809493	AA14358	BROMOFORM	0	10		7.5	ug/L	75	10.6
DPS01	Q2809493	AA14358	BROMOMETHANE	0	10		9.07	ug/L	90.7	7
DPS01	Q2809493	AA14358	CARBON TETRACHLORIDE	0	10		10.3	ug/L	103.2	10.3
DPS01	Q2809493	AA14358	CHLOROBENZENE	0	10		10.3	ug/L	102.6	9.6
DPS01	Q2809493	AA14358	DIBROMOCHLOROMETHANE	0	10		9.12	ug/L	91.2	5.3
DPS01	Q2809493	AA14358	CHLOROETHANE	0	10		9.34	ug/L	93.4	12.4
DPS01	Q2809493	AA14358	CHLOROFORM	0	10		9.95	ug/L	99.5	7.5
DPS01	Q2809493	AA14358	CHLOROMETHANE	0	10		8.68	ug/L	86.8	10.8
DPS01	Q2809493	AA14358	DIBROMOMETHANE	0	10		9.86	ug/L	98.6	11.7
DPS01	Q2809493	AA14358	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10		10.1	ug/L	100.5	4.6
DPS01	Q2809493	AA14358	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10		10.1	ug/L	100.5	7.1
DPS01	Q2809493	AA14358	1,1-DICHLOROETHANE	0	10		10.2	ug/L	101.6	9.5
DPS01	Q2809493	AA14358	1,2-DICHLOROETHANE	0	10		10.2	ug/L	102.1	8.4
DPS01	Q2809493	AA14358	1,1-DICHLOROETHENE	0	10		9.18	ug/L	91.8	11.1
DPS01	Q2809493	AA14358	CIS-1,2-DICHLOROETHENE	0	10		10.1	ug/L	100.8	10.3
DPS01	Q2809493	AA14358	TRANS-1,2-DICHLOROETHENE	0	10		9.91	ug/L	99.1	11
DPS01	Q2809493	AA14358	1,2-DICHLOROPROPANE	0	10		10.1	ug/L	100.7	9.7
DPS01	Q2809493	AA14358	ETHYL BENZENE	0	10		10.2	ug/L	101.7	8.3
DPS01	Q2809493	AA14358	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10		9.53	ug/L	95.3	11.7
DPS01	Q2809493	AA14358	METHYL ETHYL KETONE	0	50		46.3	ug/L	92.5	27.3
DPS01	Q2809493	AA14358	STYRENE	0	10		8.63	ug/L	86.3	10.5
DPS01	Q2809493	AA14358	1,1,1,2-TETRACHLOROETHANE	0	10		9.88	ug/L	98.8	0.3
DPS01	Q2809493	AA14358	1,1,2,2-TETRACHLOROETHANE	0	10		9.91	ug/L	99.1	1
DPS01	Q2809493	AA14358	TETRACHLOROETHENE	0	10		10.4	ug/L	103.7	14.1
DPS01	Q2809493	AA14358	TOLUENE	0	10		9.99	ug/L	99.9	10.4
DPS01	Q2809493	AA14358	1,1,1-TRICHLOROETHANE	0	10		10.1	ug/L	100.7	6.1
DPS01	Q2809493	AA14358	1,1,2-TRICHLOROETHANE	0	10		9.89	ug/L	98.9	13.4

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VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B **O510.6**

R624829 Analytical — Analyst: H WILLIAMS — Reviewer: R SHAMP — Run Date: 24-Apr-14 — Review Date: 28-Apr-14 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS01	Q2809493	AA14358	TRICHLOROETHENE	0	10		10.2	ug/L	101.7	15.4
DPS01	Q2809493	AA14358	TRICHLOROFLUOROMETHANE	0	10		8.84	ug/L	88.4	9
DPS01	Q2809493	AA14358	1,2,3-TRICHLOROPROPANE	0	10		9.71	ug/L	97.1	13.4
DPS01	Q2809493	AA14358	VINYL CHLORIDE	0	10		9.02	ug/L	90.2	10.5
DPS01	Q2809493	AA14358	XYLENES (O/M/P-XYLENE)	0	30		29.9	ug/L	99.7	6.1
DPS01	Q2809493	AA14358	CARBON DISULFIDE	0	10		7.71	ug/L	77.1	8.4
DPS01	Q2809493	AA14358	ACRYLONITRILE	0	100	!	17.5	ug/L	17.5	112.1
DPS01	Q2809493	AA14358	VINYL ACETATE	0	10		7.24	ug/L	72.4	6
DPS01	Q2809493	AA14358	ACETONE (2-PROPANONE)	0	50		44.5	ug/L	88.9	43.8
DPS01	Q2809493	AA14358	ACROLEIN	0	100	!	10.2	ug/L	10.2	104.4
DPS01	Q2809493	AA14358	4-METHYL-2-PENTANONE	0	50		48.8	ug/L	97.5	13
DPS01	Q2809493	AA14358	2-HEXANONE	0	50		51.4	ug/L	102.8	16.6
DPS01	Q2809493	AA14358	IODOMETHANE	0	10		9.89	ug/L	98.9	11.3
DPS01	Q2809493	AA14358	CIS-1,3-DICHLOROPROPENE	0	10		8.28	ug/L	82.8	10.5
DPS01	Q2809493	AA14358	TRANS-1,3-DICHLOROPROPENE	0	10		8.14	ug/L	81.4	10
DPS01	Q2809493	AA14358	TRANS-1,4-DICHLORO-2-BUTENE	0	20		11.3	ug/L	56.4	12.6
SAMPLE	AA14647		Analysis Date/Time: 24-Apr-14 16:31							
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		Analysis Date/Time: 24-Apr-14 16:57							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		Analysis Date/Time: 24-Apr-14 17:22							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		Analysis Date/Time: 24-Apr-14 17:48							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		Analysis Date/Time: 24-Apr-14 18:14							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		Analysis Date/Time: 24-Apr-14 18:39							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							

Q2807330 Value reported for analytes calibrated by linear (LIN) or
Q2807330 quadratic (QDR) equations is r2 (Coef. of Determination).
Q2809489 Value reported for analytes calibrated by linear (LIN) or quadratic (QDR)
Q2809489 equations is concentration.(UG/L)
Q2809490 Analytes present greater than 1/2 of the detection limit are reported.
Q2809492 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery
Q2809492 possible. Unacidified sample not available.
Q2809493 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery
Q2809493 possible. Unacidified sample not available.

R624887 Analytical — Analyst: H WILLIAMS — Reviewer: R SHAMP — Run Date: 25-Apr-14 — Review Date: 29-Apr-14 — Instrument: GC/MS VOA

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2807330		Analysis Date/Time: 18-Apr-14 09:01							
CAL01	Q2807330		BENZENE	0.9580						2.8
CAL01	Q2807330		BROMOCHLOROMETHANE	0.1080						6.1
CAL01	Q2807330		BROMODICHLOROMETHANE	0.3007						2.3
CAL01	Q2807330		BROMOFORM	0.4105						6.7

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Quality Assurance Report 66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B O510.6

R624887 Analyst: H WILLIAMS Run Date: 25-Apr-14
Analytical Reviewer: R SHAMP Review Date: 29-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2807330		BROMOMETHANE			QDR				0.993
CAL01	Q2807330		CARBON TETRACHLORIDE	0.2262						7.6
CAL01	Q2807330		CHLOROBENZENE	1.9915						2.4
CAL01	Q2807330		DIBROMOCHLOROMETHANE	0.6445						3.1
CAL01	Q2807330		CHLOROETHANE			QDR				0.999
CAL01	Q2807330		CHLOROFORM	0.3833						4.2
CAL01	Q2807330		CHLOROMETHANE	0.2409						14.1
CAL01	Q2807330		DIBROMOMETHANE	0.1304						2.7
CAL01	Q2807330		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.6329						3.1
CAL01	Q2807330		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.6566						3.3
CAL01	Q2807330		1,1-DICHLOROETHANE	0.3682						6
CAL01	Q2807330		1,2-DICHLOROETHANE	0.3321						5.2
CAL01	Q2807330		1,1-DICHLOROETHENE	0.2095						3
CAL01	Q2807330		CIS-1,2-DICHLOROETHENE	0.2492						4.3
CAL01	Q2807330		TRANS-1,2-DICHLOROETHENE	0.2259						5.5
CAL01	Q2807330		1,2-DICHLOROPROPANE	0.2333						4.1
CAL01	Q2807330		ETHYL BENZENE	1.0335						2.1
CAL01	Q2807330		DICHLOROMETHANE (METHYLENE CHLORIDE)			LIN				1.000
CAL01	Q2807330		METHYL ETHYL KETONE	0.0385						7.3
CAL01	Q2807330		STYRENE	2.2444						2.4
CAL01	Q2807330		1,1,1,2-TETRACHLOROETHANE	0.6522						2.5
CAL01	Q2807330		1,1,2,2-TETRACHLOROETHANE	1.0360						9.7
CAL01	Q2807330		TETRACHLOROETHENE	0.6704						2.9
CAL01	Q2807330		TOLUENE	1.0079						3
CAL01	Q2807330		1,1,1-TRICHLOROETHANE	0.2699						6.3
CAL01	Q2807330		1,1,2-TRICHLOROETHANE	0.2104						3.7
CAL01	Q2807330		TRICHLOROETHENE	0.2553						5.7
CAL01	Q2807330		TRICHLOROFLUOROMETHANE	0.2607						4.7
CAL01	Q2807330		1,2,3-TRICHLOROPROPANE	0.3321						8.2
CAL01	Q2807330		VINYL CHLORIDE	0.2334						4.2
CAL01	Q2807330		CARBON DISULFIDE	0.5849						3.3
CAL01	Q2807330		ACRYLONITRILE	0.0711						5.7
CAL01	Q2807330		VINYL ACETATE	0.6885						3.8
CAL01	Q2807330		ACETONE (2-PROPANONE)	0.0973						11
CAL01	Q2807330		ACROLEIN	0.0249						6.2
CAL01	Q2807330		4-METHYL-2-PENTANONE	0.3662						9.3
CAL01	Q2807330		2-HEXANONE	0.7621						9.8
CAL01	Q2807330		IODOMETHANE	0.3164						4.4
CAL01	Q2807330		CIS-1,3-DICHLOROPROPENE	0.3854						5.8
CAL01	Q2807330		TRANS-1,3-DICHLOROPROPENE	0.3322						5.6
CAL01	Q2807330		TRANS-1,4-DICHLORO-2-BUTENE	0.3211						5.5
CAL01	Q2807330		DICHLOROETHANE-D4	0.2819						6
CAL01	Q2807330		TOLUENE-D8	0.9067						2.2
CAL01	Q2807330		4-BROMOFLUOROBENZENE	0.8517						1.2
CAL01	Q2807330		DIBROMOFLUOROMETHANE	0.2267						2.5
ICV01	Q2807331		Analysis Date/Time: 18-Apr-14 11:34							

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Quality Assurance Report 66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B O510.6

R624887 Analyst: H WILLIAMS Run Date: 25-Apr-14
Analytical Reviewer: R SHAMP Review Date: 29-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2807331		BENZENE	10			10.3	ug/L	103	
ICV01	Q2807331		BROMOCHLOROMETHANE	10			11.4	ug/L	114	
ICV01	Q2807331		BROMODICHLOROMETHANE	10			9.92	ug/L	99.2	
ICV01	Q2807331		BROMOFORM	10			10.6	ug/L	106	
ICV01	Q2807331		BROMOMETHANE	10			10.6	ug/L	106	
ICV01	Q2807331		CARBON TETRACHLORIDE	10			11.9	ug/L	119	
ICV01	Q2807331		CHLOROBENZENE	10			10.2	ug/L	102	
ICV01	Q2807331		DIBROMOCHLOROMETHANE	10			10.4	ug/L	104	
ICV01	Q2807331		CHLOROETHANE	10			11	ug/L	110	
ICV01	Q2807331		CHLOROFORM	10			11.2	ug/L	112	
ICV01	Q2807331		CHLOROMETHANE	10			10.2	ug/L	102	
ICV01	Q2807331		DIBROMOMETHANE	10			11.3	ug/L	113	
ICV01	Q2807331		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	10			10.3	ug/L	103	
ICV01	Q2807331		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	10			10.8	ug/L	108	
ICV01	Q2807331		1,1-DICHLOROETHANE	10			11.7	ug/L	117	
ICV01	Q2807331		1,2-DICHLOROETHANE	10			10.6	ug/L	106	
ICV01	Q2807331		1,1-DICHLOROETHENE	10			11.3	ug/L	113	
ICV01	Q2807331		CIS-1,2-DICHLOROETHENE	10			10.3	ug/L	103	
ICV01	Q2807331		TRANS-1,2-DICHLOROETHENE	10			10.8	ug/L	108	
ICV01	Q2807331		1,2-DICHLOROPROPANE	10			9.92	ug/L	99.2	
ICV01	Q2807331		ETHYL BENZENE	10			10.9	ug/L	109	
ICV01	Q2807331		DICHLOROMETHANE (METHYLENE CHLORIDE)	10			9.71	ug/L	97.1	
ICV01	Q2807331		METHYL ETHYL KETONE	50			47.7	ug/L	95.4	
ICV01	Q2807331		STYRENE	10			10.6	ug/L	106	
ICV01	Q2807331		1,1,1,2-TETRACHLOROETHANE	10			10.3	ug/L	103	
ICV01	Q2807331		1,1,2,2-TETRACHLOROETHANE	10			10.1	ug/L	101	
ICV01	Q2807331		TETRACHLOROETHENE	10			12.2	ug/L	122	
ICV01	Q2807331		TOLUENE	10			10.2	ug/L	102	
ICV01	Q2807331		1,1,1-TRICHLOROETHANE	10			12.2	ug/L	122	
ICV01	Q2807331		1,1,2-TRICHLOROETHANE	10			10.1	ug/L	101	
ICV01	Q2807331		TRICHLOROETHENE	10			10.7	ug/L	107	
ICV01	Q2807331		TRICHLOROFLUOROMETHANE	10			11.1	ug/L	111	
ICV01	Q2807331		1,2,3-TRICHLOROPROPANE	10			10.7	ug/L	107	
ICV01	Q2807331		VINYL CHLORIDE	10			10.6	ug/L	106	
ICV01	Q2807331		CARBON DISULFIDE	10			10.1	ug/L	101	
ICV01	Q2807331		ACRYLONITRILE	100			93.2	ug/L	93.2	
ICV01	Q2807331		VINYL ACETATE	10			9.29	ug/L	92.9	
ICV01	Q2807331		ACETONE (2-PROPANONE)	50			48.2	ug/L	96.4	
ICV01	Q2807331		ACROLEIN	100			95.1	ug/L	95.1	
ICV01	Q2807331		4-METHYL-2-PENTANONE	50			47.7	ug/L	95.4	
ICV01	Q2807331		2-HEXANONE	50			50.1	ug/L	100.2	
ICV01	Q2807331		IODOMETHANE	10			10.3	ug/L	103	
ICV01	Q2807331		CIS-1,3-DICHLOROPROPENE	10			9.43	ug/L	94.3	
ICV01	Q2807331		TRANS-1,3-DICHLOROPROPENE	10			9.97	ug/L	99.7	
ICV01	Q2807331		TRANS-1,4-DICHLORO-2-BUTENE	20			18.4	ug/L	92	
CCVD	Q2809886		Analysis Date/Time: 25-Apr-14 06:22							

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Quality Assurance Report

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VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B O510.6

R624887 Analyst: H WILLIAMS
Analytical Reviewer: R SHAMP
Run Date: 25-Apr-14
Review Date: 29-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCVD	Q2809886		BENZENE	0.9580			1.0469			9.3
CCVD	Q2809886		BROMOCHLOROMETHANE	0.1080			0.1131			4.7
CCVD	Q2809886		BROMODICHLOROMETHANE	0.3007			0.2765			8
CCVD	Q2809886		BROMOFORM	0.4105			0.2663			35.1
CCVD	Q2809886		BROMOMETHANE	10.0		QDR	8.48			15.2
CCVD	Q2809886		CARBON TETRACHLORIDE	0.2262			0.2605			15.2
CCVD	Q2809886		CHLOROBENZENE	1.9915			2.0618			3.5
CCVD	Q2809886		DIBROMOCHLOROMETHANE	0.6445			0.5424			15.8
CCVD	Q2809886		CHLOROETHANE	10.0		QDR	9.60			4
CCVD	Q2809886		CHLOROFORM	0.3833			0.3955			3.2
CCVD	Q2809886		CHLOROMETHANE	0.2409			0.2205			8.5
CCVD	Q2809886		DIBROMOMETHANE	0.1304			0.1403			7.6
CCVD	Q2809886		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.6329			1.6566			1.5
CCVD	Q2809886		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.6566			1.7008			2.7
CCVD	Q2809886		1,1-DICHLOROETHANE	0.3682			0.4027			9.4
CCVD	Q2809886		1,2-DICHLOROETHANE	0.3321			0.3515			5.8
CCVD	Q2809886		1,1-DICHLOROETHENE	0.2095			0.2084			0.5
CCVD	Q2809886		CIS-1,2-DICHLOROETHENE	0.2492			0.2686			7.8
CCVD	Q2809886		TRANS-1,2-DICHLOROETHENE	0.2259			0.2378			5.3
CCVD	Q2809886		1,2-DICHLOROPROPANE	0.2333			0.2436			4.4
CCVD	Q2809886		ETHYL BENZENE	1.0335			1.0940			5.9
CCVD	Q2809886		DICHLOROMETHANE (METHYLENE CHLORIDE)	10.0		LIN	9.49			5.1
CCVD	Q2809886		METHYL ETHYL KETONE	0.0385			0.0422			9.6
CCVD	Q2809886		STYRENE	2.2444			2.2605			0.7
CCVD	Q2809886		1,1,1,2-TETRACHLOROETHANE	0.6522			0.6139			5.9
CCVD	Q2809886		1,1,2,2-TETRACHLOROETHANE	1.0360			0.9860			4.8
CCVD	Q2809886		TETRACHLOROETHENE	0.6704			0.7467			11.4
CCVD	Q2809886		TOLUENE	1.0079			1.0611			5.3
CCVD	Q2809886		1,1,1-TRICHLOROETHANE	0.2699			0.2850			5.6
CCVD	Q2809886		1,1,2-TRICHLOROETHANE	0.2104			0.2205			4.8
CCVD	Q2809886		TRICHLOROETHENE	0.2553			0.2757			8
CCVD	Q2809886		TRICHLOROFLUOROMETHANE	0.2607			0.2744			5.3
CCVD	Q2809886		1,2,3-TRICHLOROPROPANE	0.3321			0.3306			0.5
CCVD	Q2809886		VINYL CHLORIDE	0.2334			0.2195			6
CCVD	Q2809886		CARBON DISULFIDE	0.5849			0.5219			10.8
CCVD	Q2809886		ACRYLONITRILE	0.0711			0.0205			71.2
CCVD	Q2809886		VINYL ACETATE	0.6885			0.6193			10.1
CCVD	Q2809886		ACETONE (2-PROPANONE)	0.0973			0.1192			22.5
CCVD	Q2809886		ACROLEIN	0.0249			0.0032			87.1
CCVD	Q2809886		4-METHYL-2-PENTANONE	0.3662			0.3757			2.6
CCVD	Q2809886		2-HEXANONE	0.7621			0.8198			7.6
CCVD	Q2809886		IODOMETHANE	0.3164			0.3150			0.4
CCVD	Q2809886		CIS-1,3-DICHLOROPROPENE	0.3854			0.3559			7.7
CCVD	Q2809886		TRANS-1,3-DICHLOROPROPENE	0.3322			0.2814			15.3
CCVD	Q2809886		TRANS-1,4-DICHLORO-2-BUTENE	0.3211			0.2413			24.9
CCVD	Q2809886		DICHLOROETHANE-D4	0.2819			0.2796			0.8

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VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B **O510.6**

R624887 Analyst: H WILLIAMS Run Date: 25-Apr-14
Analytical Reviewer: R SHAMP Review Date: 29-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCVD	Q2809886		TOLUENE-D8	0.9067			0.9068			0
CCVD	Q2809886		4-BROMOFLUOROBENZENE	0.8517			0.8237			3.3
CCVD	Q2809886		DIBROMOFLUOROMETHANE	0.2267			0.2221			2
BLA01	Q2809891		Analysis Date/Time: 25-Apr-14 07:44							
BLA01	Q2809891		BENZENE			BDL	0.24	ug/L		
BLA01	Q2809891		BROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2809891		BROMODICHLOROMETHANE			BDL	0.28	ug/L		
BLA01	Q2809891		BROMOFORM			BDL	0.33	ug/L		
BLA01	Q2809891		BROMOMETHANE			BDL	0.48	ug/L		
BLA01	Q2809891		CARBON TETRACHLORIDE			BDL	0.33	ug/L		
BLA01	Q2809891		CHLOROBENZENE			BDL	0.28	ug/L		
BLA01	Q2809891		DIBROMOCHLOROMETHANE			BDL	0.32	ug/L		
BLA01	Q2809891		CHLOROETHANE			BDL	0.45	ug/L		
BLA01	Q2809891		CHLOROFORM			BDL	0.22	ug/L		
BLA01	Q2809891		CHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2809891		DIBROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q2809891		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)			BDL	1.0	ug/L		
BLA01	Q2809891		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)			BDL	1.0	ug/L		
BLA01	Q2809891		1,1-DICHLOROETHANE			BDL	0.31	ug/L		
BLA01	Q2809891		1,2-DICHLOROETHANE			BDL	0.30	ug/L		
BLA01	Q2809891		1,1-DICHLOROETHENE			BDL	0.39	ug/L		
BLA01	Q2809891		CIS-1,2-DICHLOROETHENE			BDL	0.24	ug/L		
BLA01	Q2809891		TRANS-1,2-DICHLOROETHENE			BDL	0.40	ug/L		
BLA01	Q2809891		1,2-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q2809891		ETHYL BENZENE			BDL	0.26	ug/L		
BLA01	Q2809891		DICHLOROMETHANE (METHYLENE CHLORIDE)			BDL	1.0	ug/L		
BLA01	Q2809891		METHYL ETHYL KETONE			BDL	1.3	ug/L		
BLA01	Q2809891		STYRENE			BDL	0.21	ug/L		
BLA01	Q2809891		1,1,1,2-TETRACHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2809891		1,1,2,2-TETRACHLOROETHANE			BDL	0.34	ug/L		
BLA01	Q2809891		TETRACHLOROETHENE			BDL	0.60	ug/L		
BLA01	Q2809891		TOLUENE			BDL	0.22	ug/L		
BLA01	Q2809891		1,1,1-TRICHLOROETHANE			BDL	0.40	ug/L		
BLA01	Q2809891		1,1,2-TRICHLOROETHANE			BDL	0.29	ug/L		
BLA01	Q2809891		TRICHLOROETHENE			BDL	0.41	ug/L		
BLA01	Q2809891		TRICHLOROFLUOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2809891		1,2,3-TRICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q2809891		VINYL CHLORIDE			BDL	0.26	ug/L		
BLA01	Q2809891		XYLENES (O/M/P-XYLENE)			BDL	0.82	ug/L		
BLA01	Q2809891		CARBON DISULFIDE			BDL	0.31	ug/L		
BLA01	Q2809891		ACRYLONITRILE			BDL	5.0	ug/L		
BLA01	Q2809891		VINYL ACETATE			BDL	0.18	ug/L		
BLA01	Q2809891		ACETONE (2-PROPANONE)			BDL	1.6	ug/L		
BLA01	Q2809891		ACROLEIN			BDL	25.	ug/L		
BLA01	Q2809891		4-METHYL-2-PENTANONE			BDL	0.92	ug/L		
BLA01	Q2809891		2-HEXANONE			BDL	5.0	ug/L		

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Quality Assurance Report

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VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B

O510.6

R624887 Analyst: H WILLIAMS
Analytical Reviewer: R SHAMP
Run Date: 25-Apr-14
Review Date: 29-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2809891		IODOMETHANE			BDL	1.0	ug/L		
BLA01	Q2809891		CIS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q2809891		TRANS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q2809891		TRANS-1,4-DICHLORO-2-BUTENE			BDL	1.0	ug/L		
BLA01	Q2809891		DICHLOROETHANE-D4						103	
BLA01	Q2809891		TOLUENE-D8						99	
BLA01	Q2809891		4-BROMOFLUOROBENZENE						97	
BLA01	Q2809891		DIBROMOFLUOROMETHANE						97	
LCS01	Q2809894		Analysis Date/Time: 25-Apr-14 08:13							
LCS01	Q2809894		BENZENE	10			10.6	ug/L	106	
LCS01	Q2809894		BROMOCHLOROMETHANE	10			11.4	ug/L	114	
LCS01	Q2809894		BROMODICHLOROMETHANE	10			9.96	ug/L	99.6	
LCS01	Q2809894		BROMOFORM	10			10.2	ug/L	102	
LCS01	Q2809894		BROMOMETHANE	10			9.4	ug/L	94	
LCS01	Q2809894		CARBON TETRACHLORIDE	10			12.4	ug/L	124	
LCS01	Q2809894		CHLOROBENZENE	10			10.3	ug/L	103	
LCS01	Q2809894		DIBROMOCHLOROMETHANE	10			10.3	ug/L	103	
LCS01	Q2809894		CHLOROETHANE	10			11.1	ug/L	111	
LCS01	Q2809894		CHLOROFORM	10			10.9	ug/L	109	
LCS01	Q2809894		CHLOROMETHANE	10			9.24	ug/L	92.4	
LCS01	Q2809894		DIBROMOMETHANE	10			11.4	ug/L	114	
LCS01	Q2809894		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	10			10.1	ug/L	101	
LCS01	Q2809894		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	10			10.7	ug/L	107	
LCS01	Q2809894		1,1-DICHLOROETHANE	10			11.5	ug/L	115	
LCS01	Q2809894		1,2-DICHLOROETHANE	10			10.5	ug/L	105	
LCS01	Q2809894		1,1-DICHLOROETHENE	10			10.4	ug/L	104	
LCS01	Q2809894		CIS-1,2-DICHLOROETHENE	10			10.3	ug/L	103	
LCS01	Q2809894		TRANS-1,2-DICHLOROETHENE	10			10.4	ug/L	104	
LCS01	Q2809894		1,2-DICHLOROPROPANE	10			10	ug/L	100	
LCS01	Q2809894		ETHYL BENZENE	10			10.8	ug/L	108	
LCS01	Q2809894		DICHLOROMETHANE (METHYLENE CHLORIDE)	10			9.75	ug/L	97.5	
LCS01	Q2809894		METHYL ETHYL KETONE	50			46.6	ug/L	93.2	
LCS01	Q2809894		STYRENE	10			10.4	ug/L	104	
LCS01	Q2809894		1,1,1,2-TETRACHLOROETHANE	10			10.4	ug/L	104	
LCS01	Q2809894		1,1,2,2-TETRACHLOROETHANE	10			10.3	ug/L	103	
LCS01	Q2809894		TETRACHLOROETHENE	10			12.1	ug/L	121	
LCS01	Q2809894		TOLUENE	10			10.4	ug/L	104	
LCS01	Q2809894		1,1,1-TRICHLOROETHANE	10			10.9	ug/L	109	
LCS01	Q2809894		1,1,2-TRICHLOROETHANE	10			10.5	ug/L	105	
LCS01	Q2809894		TRICHLOROETHENE	10			10.1	ug/L	101	
LCS01	Q2809894		TRICHLOROFLUOROMETHANE	10			9.49	ug/L	94.9	
LCS01	Q2809894		1,2,3-TRICHLOROPROPANE	10			10.3	ug/L	103	
LCS01	Q2809894		VINYL CHLORIDE	10			9.5	ug/L	95	
LCS01	Q2809894		XYLENES (O/M/P-XYLENE)	30			31.7	ug/L	105.7	
LCS01	Q2809894		CARBON DISULFIDE	10			9.31	ug/L	93.1	
LCS01	Q2809894		ACRYLONITRILE	100			24.7	ug/L	24.7	

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Quality Assurance Report 66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B O510.6

R624887 Analyst: H WILLIAMS Run Date: 25-Apr-14
Analytical Reviewer: R SHAMP Review Date: 29-Apr-14 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS01	Q2809894		VINYL ACETATE	10			8.45	ug/L	84.5	
LCS01	Q2809894		ACETONE (2-PROPANONE)	50			44.3	ug/L	88.6	
LCS01	Q2809894		ACROLEIN	100			13.9	ug/L	13.9	
LCS01	Q2809894		4-METHYL-2-PENTANONE	50			48.9	ug/L	97.8	
LCS01	Q2809894		2-HEXANONE	50			51.9	ug/L	103.8	
LCS01	Q2809894		IODOMETHANE	10			9.81	ug/L	98.1	
LCS01	Q2809894		CIS-1,3-DICHLOROPROPENE	10			8.79	ug/L	87.9	
LCS01	Q2809894		TRANS-1,3-DICHLOROPROPENE	10			9.09	ug/L	90.9	
LCS01	Q2809894		TRANS-1,4-DICHLORO-2-BUTENE	20			16.5	ug/L	82.5	
SAMPLE	AA14653		Analysis Date/Time: 25-Apr-14 08:48							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		Analysis Date/Time: 25-Apr-14 09:14							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14655		Analysis Date/Time: 25-Apr-14 09:39							
SAMPLE	AA14655		See Certificate of Analysis, Rep: 0							
SPI01	Q2809897	AA14861	Analysis Date/Time: 25-Apr-14 12:38							
SPI01	Q2809897	AA14861	BENZENE	0	10		11.3	ug/L	113	
SPI01	Q2809897	AA14861	BROMOCHLOROMETHANE	0	10		11.8	ug/L	118	
SPI01	Q2809897	AA14861	BROMODICHLOROMETHANE	0	10		10.3	ug/L	103	
SPI01	Q2809897	AA14861	BROMOFORM	0	10		7.9	ug/L	79	
SPI01	Q2809897	AA14861	BROMOMETHANE	0	10		10.1	ug/L	101	
SPI01	Q2809897	AA14861	CARBON TETRACHLORIDE	0	10		11.9	ug/L	119	
SPI01	Q2809897	AA14861	CHLOROBENZENE	0	10		10.8	ug/L	108	
SPI01	Q2809897	AA14861	DIBROMOCHLOROMETHANE	0	10		9.45	ug/L	94.5	
SPI01	Q2809897	AA14861	CHLOROETHANE	0	10		10.8	ug/L	108	
SPI01	Q2809897	AA14861	CHLOROFORM	0	10		10.8	ug/L	108	
SPI01	Q2809897	AA14861	CHLOROMETHANE	0	10		9.51	ug/L	95.1	
SPI01	Q2809897	AA14861	DIBROMOMETHANE	0	10		11.4	ug/L	114	
SPI01	Q2809897	AA14861	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10		10.7	ug/L	107	
SPI01	Q2809897	AA14861	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10		10.5	ug/L	105	
SPI01	Q2809897	AA14861	1,1-DICHLOROETHANE	1.35	10		12.8	ug/L	114.5	
SPI01	Q2809897	AA14861	1,2-DICHLOROETHANE	0	10		11.5	ug/L	115	
SPI01	Q2809897	AA14861	1,1-DICHLOROETHENE	0	10		10.5	ug/L	105	
SPI01	Q2809897	AA14861	CIS-1,2-DICHLOROETHENE	63	10	!	67.5	ug/L	45	
SPI01	Q2809897	AA14861	TRANS-1,2-DICHLOROETHENE	7.93	10		18.3	ug/L	103.7	
SPI01	Q2809897	AA14861	1,2-DICHLOROPROPANE	0	10		11.5	ug/L	115	
SPI01	Q2809897	AA14861	ETHYL BENZENE	0	10		10.6	ug/L	106	
SPI01	Q2809897	AA14861	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10		10.9	ug/L	109	
SPI01	Q2809897	AA14861	METHYL ETHYL KETONE	0	50		61.8	ug/L	123.6	
SPI01	Q2809897	AA14861	STYRENE	0	10		7.01	ug/L	70.1	
SPI01	Q2809897	AA14861	1,1,1,2-TETRACHLOROETHANE	0	10		10.7	ug/L	107	
SPI01	Q2809897	AA14861	1,1,2,2-TETRACHLOROETHANE	0	10		10.8	ug/L	108	
SPI01	Q2809897	AA14861	TETRACHLOROETHENE	0	10		11	ug/L	110	
SPI01	Q2809897	AA14861	TOLUENE	0	10		10.7	ug/L	107	
SPI01	Q2809897	AA14861	1,1,1-TRICHLOROETHANE	0	10		11.3	ug/L	113	
SPI01	Q2809897	AA14861	1,1,2-TRICHLOROETHANE	0	10		11.1	ug/L	111	

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Quality Assurance Report

66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B

O510.6

R624887 Analyst: H WILLIAMS
Analytical Reviewer: R SHAMP
Run Date: 25-Apr-14
Review Date: 29-Apr-14

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI01	Q2809897	AA14861	TRICHLOROETHENE	1.69	10		11.9	ug/L	102.1	
SPI01	Q2809897	AA14861	TRICHLOROFLUOROMETHANE	0	10		10.3	ug/L	103	
SPI01	Q2809897	AA14861	1,2,3-TRICHLOROPROPANE	0	10		11	ug/L	110	
SPI01	Q2809897	AA14861	VINYL CHLORIDE	3.67	10		13.2	ug/L	95.3	
SPI01	Q2809897	AA14861	XYLENES (O/M/P-XYLENE)	0	30		29.8	ug/L	99.3	
SPI01	Q2809897	AA14861	CARBON DISULFIDE	0	10		8.67	ug/L	86.7	
SPI01	Q2809897	AA14861	ACRYLONITRILE	0	100		40.2	ug/L	40.2	
SPI01	Q2809897	AA14861	VINYL ACETATE	0	10		8.22	ug/L	82.2	
SPI01	Q2809897	AA14861	ACETONE (2-PROPANONE)	0	50		64	ug/L	128	
SPI01	Q2809897	AA14861	ACROLEIN	0	100		23.8	ug/L	23.8	
SPI01	Q2809897	AA14861	4-METHYL-2-PENTANONE	0	50	!	57.6	ug/L	115.2	
SPI01	Q2809897	AA14861	2-HEXANONE	0	50	!	58.3	ug/L	116.6	
SPI01	Q2809897	AA14861	IODOMETHANE	0	10		10.8	ug/L	108	
SPI01	Q2809897	AA14861	CIS-1,3-DICHLOROPROPENE	0	10		9.13	ug/L	91.3	
SPI01	Q2809897	AA14861	TRANS-1,3-DICHLOROPROPENE	0	10		8.76	ug/L	87.6	
SPI01	Q2809897	AA14861	TRANS-1,4-DICHLORO-2-BUTENE	0	20		12.5	ug/L	62.5	
DPS01	Q2809898	AA14861	Analysis Date/Time: 25-Apr-14 13:04							
DPS01	Q2809898	AA14861	BENZENE	0	10		10.6	ug/L	106.4	6
DPS01	Q2809898	AA14861	BROMOCHLOROMETHANE	0	10		9.73	ug/L	97.3	19.5
DPS01	Q2809898	AA14861	BROMODICHLOROMETHANE	0	10		9.2	ug/L	92	11.4
DPS01	Q2809898	AA14861	BROMOFORM	0	10		7.01	ug/L	70.1	11.9
DPS01	Q2809898	AA14861	BROMOMETHANE	0	10		8.85	ug/L	88.5	13.6
DPS01	Q2809898	AA14861	CARBON TETRACHLORIDE	0	10		11.4	ug/L	113.9	4.6
DPS01	Q2809898	AA14861	CHLOROBENZENE	0	10		10.2	ug/L	101.6	5.9
DPS01	Q2809898	AA14861	DIBROMOCHLOROMETHANE	0	10		8.54	ug/L	85.4	10.1
DPS01	Q2809898	AA14861	CHLOROETHANE	0	10		9.27	ug/L	92.7	15.4
DPS01	Q2809898	AA14861	CHLOROFORM	0	10		9.99	ug/L	99.9	8.1
DPS01	Q2809898	AA14861	CHLOROMETHANE	0	10		9.18	ug/L	91.8	3.5
DPS01	Q2809898	AA14861	DIBROMOMETHANE	0	10		10.1	ug/L	101	12
DPS01	Q2809898	AA14861	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	10		9.77	ug/L	97.7	8.7
DPS01	Q2809898	AA14861	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	10		9.75	ug/L	97.5	7.3
DPS01	Q2809898	AA14861	1,1-DICHLOROETHANE	1.35	10		12.1	ug/L	107	7
DPS01	Q2809898	AA14861	1,2-DICHLOROETHANE	0	10		10.4	ug/L	104.1	10.2
DPS01	Q2809898	AA14861	1,1-DICHLOROETHENE	0	10		10	ug/L	100.2	4.8
DPS01	Q2809898	AA14861	CIS-1,2-DICHLOROETHENE	63	10	!	66.9	ug/L	39.1	14.3
DPS01	Q2809898	AA14861	TRANS-1,2-DICHLOROETHENE	7.93	10		17.6	ug/L	97.1	6.3
DPS01	Q2809898	AA14861	1,2-DICHLOROPROPANE	0	10		10.4	ug/L	103.7	10.2
DPS01	Q2809898	AA14861	ETHYL BENZENE	0	10		9.87	ug/L	98.7	7
DPS01	Q2809898	AA14861	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	10		9.75	ug/L	97.5	11.3
DPS01	Q2809898	AA14861	METHYL ETHYL KETONE	0	50		60.9	ug/L	121.8	1.5
DPS01	Q2809898	AA14861	STYRENE	0	10		6.42	ug/L	64.2	8.8
DPS01	Q2809898	AA14861	1,1,1,2-TETRACHLOROETHANE	0	10		9	ug/L	90	16.8
DPS01	Q2809898	AA14861	1,1,2,2-TETRACHLOROETHANE	0	10		9.3	ug/L	93	14.6
DPS01	Q2809898	AA14861	TETRACHLOROETHENE	0	10		11	ug/L	110.4	0.7
DPS01	Q2809898	AA14861	TOLUENE	0	10		10	ug/L	100.2	6.3
DPS01	Q2809898	AA14861	1,1,1-TRICHLOROETHANE	0	10		10.8	ug/L	107.6	5

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Quality Assurance Report 66157

VOLATILE ORGANICS (CAPILLARY COLUMN) SW846-8260B O510.6

R624887 Analyst: H WILLIAMS Run Date: 25-Apr-14
Analytical Reviewer: R SHAMP Review Date: 29-Apr-14
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS01	Q2809898	AA14861	1,1,2-TRICHLOROETHANE	0	10		10	ug/L	100.3	10.5
DPS01	Q2809898	AA14861	TRICHLOROETHENE	1.69	10		11.3	ug/L	96.5	5.6
DPS01	Q2809898	AA14861	TRICHLOROFLUOROMETHANE	0	10		10.1	ug/L	101	1.6
DPS01	Q2809898	AA14861	1,2,3-TRICHLOROPROPANE	0	10		9.75	ug/L	97.5	11.8
DPS01	Q2809898	AA14861	VINYL CHLORIDE	3.67	10		12.9	ug/L	91.9	3.3
DPS01	Q2809898	AA14861	XYLENES (O/M/P-XYLENE)	0	30		27.7	ug/L	92.3	7.3
DPS01	Q2809898	AA14861	CARBON DISULFIDE	0	10		8.14	ug/L	81.4	6.3
DPS01	Q2809898	AA14861	ACRYLONITRILE	0	100		60.6	ug/L	60.6	40.5
DPS01	Q2809898	AA14861	VINYL ACETATE	0	10		7.06	ug/L	70.6	15.2
DPS01	Q2809898	AA14861	ACETONE (2-PROPANONE)	0	50		65.7	ug/L	131.4	2.6
DPS01	Q2809898	AA14861	ACROLEIN	0	100		31.4	ug/L	31.4	27.5
DPS01	Q2809898	AA14861	4-METHYL-2-PENTANONE	0	50		52.8	ug/L	105.7	8.5
DPS01	Q2809898	AA14861	2-HEXANONE	0	50	!	56.7	ug/L	113.3	2.9
DPS01	Q2809898	AA14861	IODOMETHANE	0	10		9.76	ug/L	97.6	10.2
DPS01	Q2809898	AA14861	CIS-1,3-DICHLOROPROPENE	0	10		8.4	ug/L	84	8.3
DPS01	Q2809898	AA14861	TRANS-1,3-DICHLOROPROPENE	0	10		7.87	ug/L	78.7	10.7
DPS01	Q2809898	AA14861	TRANS-1,4-DICHLORO-2-BUTENE	0	20		11.5	ug/L	57.6	8

Q2807330 Value reported for analytes calibrated by linear (LIN) or
Q2807330 quadratic (QDR) equations is r2 (Coef. of Determination).
Q2809886 Value reported for analytes calibrated by linear (LIN) or quadratic (QDR)
Q2809886 equations is concentration.(UG/L)
Q2809891 Analytes present greater than 1/2 of the detection limit are reported.
Q2809897 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery
Q2809897 possible. Unacidified sample not available.
Q2809898 2-Chloroethyl vinyl ether degrades under acidic conditions. No recovery
Q2809898 possible. Unacidified sample not available.

ZINC ICP SW846-6010B M139.3
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624629 Analyst: K KAMARA Run Date: 23-Apr-14 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 23-Apr-14

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2807997		Analytical Run: R624695							
LCS	Q2807998		Analytical Run: R624695							
DUP02	Q2807999		Analytical Run: R624695							
SPI02	Q2808000		Analytical Run: R624695							
SAMPLE	AA14647	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14648	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14649	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14650	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14651	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14652	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14653	Rep: 0	Analytical Run: R624695							
SAMPLE	AA14654	Rep: 0	Analytical Run: R624695							

R624695 Analyst: J KRAMER Run Date: 23-Apr-14 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

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ZINC ICP SW846-6010B **M139.3**
Prep : FAA/ ICP ACID DIGESTION (TOTAL RECOVERABLE) EPA 200.0

R624695 Analyst: J KRAMER Run Date: 23-Apr-14
Analytical Reviewer: S ENDERSEN Review Date: 24-Apr-14

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2808436		ZINC	1			0.998	mg/L	99.8	
CDL01	Q2808471		ZINC	10			9.87	mg/L	98.7	
ICS-AB	Q2808449		ZINC	1.00			0.942	mg/L	94.2	
BLA02	Q2807997		ZINC				0.00332	mg/L		
LCS	Q2807998		ZINC	0.5			0.511	mg/L	102.2	
SER01	Q2808477	AA14644	ZINC	0.0116		CNA	0.0256	mg/L		
DUP02	Q2807999	AA14644	ZINC	0.0116		CNA	0.0112	mg/L		
SPI02	Q2808000	AA14644	ZINC	0.0116	0.500		0.528	mg/L	103.3	
CCV	Q2808455		ZINC	5			4.91	mg/L	98.2	
BLA01	Q2808439		ZINC			<	0.00160	mg/L		
SAMPLE	AA14647		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14648		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14649		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14650		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14651		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14652		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14653		See Certificate of Analysis, Rep: 0							
SAMPLE	AA14654		See Certificate of Analysis, Rep: 0							
CCV	Q2808456		ZINC	5			4.98	mg/L	99.6	
BLA01	Q2808440		ZINC			<	0.00160	mg/L		
SER01	Q2808474	AA10294	ZINC	0		CNA	0.00738	mg/L		
CDL01	Q2808470		ZINC	0.0200			0.0200	mg/L	100.0	
ICS-AB	Q2808450		ZINC	1.00			0.944	mg/L	94.4	

Q2808474 1:5 Dilution.
Q2808477 1:5 Dilution.
Q2808477 There was possible matrix interference for K and Na
Q2808477 as indicated by the serial dilution results.

RQL	Result Qualifier Definition
!	Outside Lab Generated Control Limits
<	Less Than
BDL	Below Detection Limit
CNA	RPD Calculation Not Applicable, < DL
LIN	Linear Regression Used
QDR	Quadratic Equation Used

QC Type	Definition
BLA01	CALIBRATION (INSTRUMENT) BLANK
BLA02	PREPPED (CALIBRATION) BLANK OR METHOD BLANK
CAL01	INITIAL CALIBRATION
CCV	CONTINUING CALIBRATION VERIFICATION
CCVD	CONTINUING CALIBRATION VERIFICATION (USING %D)
CCVH	HIGH CONTINUING CALIBRATION VERIFICATION
CCVL	LOW CONTINUING CALIBRATION VERIFICATION
CDL01	DETECTION LIMIT STANDARD
DPS01	DUPLICATE MATRIX SPIKE
DPS02	PREPPED DUPLICATE MATRIX SPIKE
DUP01	DUPLICATE SAMPLE ANALYSIS
DUP02	PREPPED DUPLICATE SAMPLE ANALYSIS

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QC Type	Definition
ICS-A	INTERFERENCE CHECK SAMPLE A
ICS-AB	INTERFERENCE CHECK SAMPLE AB
ICV01	INITIAL CALIBRATION VERIFICATION DIFFERENT SOURCE
LCS	LABORATORY CONTROL SAMPLE PREPPED
LCS01	LABORATORY CONTROL SAMPLE
LFB01	LABORATORY FORTIFIED BLANK
LFB01H	HIGH LEVEL LABORATORY FORTIFIED BLANK
LFB01L	LOW LEVEL LABORATORY FORTIFIED BLANK
LICV01	LOW LEVEL CALIBRATION VERIFICATION DIFFERENT SOURCE
SER01	ICP SERIAL DILUTION
SPI01	MATRIX SPIKE
SPI02	PREPPED MATRIX SPIKE

Approved By : CHRISTOPHER BOYLE

Keystone LABORATORIES, INC.

MEMBER ACIL

May 14 2014

Chris Boyle
Pace Analytical-Indianapolis
7901 West Morris Street
Indianapolis, IN 46231

RE: Subcontract Analyses
R624607

Enclosed are the results of analyses for samples received by the laboratory on 04/23/14 11:35. If you have any questions concerning this report, please feel free to contact me at 1-800-858-5227.

ANALYTICAL REPORT FOR SAMPLES

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AA14654 FB	1D41485-01	Water	04/21/14 10:55	04/23/14 11:35
AA14653 MW-28E	1D41485-02	Water	04/21/14 14:35	04/23/14 11:35
AA14652 MW-28D	1D41485-03	Water	04/21/14 14:05	04/23/14 11:35
AA14651 MW-28C	1D41485-04	Water	04/21/14 15:15	04/23/14 11:35
AA14650 MW-3	1D41485-05	Water	04/21/14 12:55	04/23/14 11:35
AA14649 MW-1B	1D41485-06	Water	04/21/14 12:20	04/23/14 11:35
AA14648 MW-1A	1D41485-07	Water	04/21/14 11:10	04/23/14 11:35
AA14647 MW-1	1D41485-08	Water	04/21/14 11:50	04/23/14 11:35

Client Supplied Containers

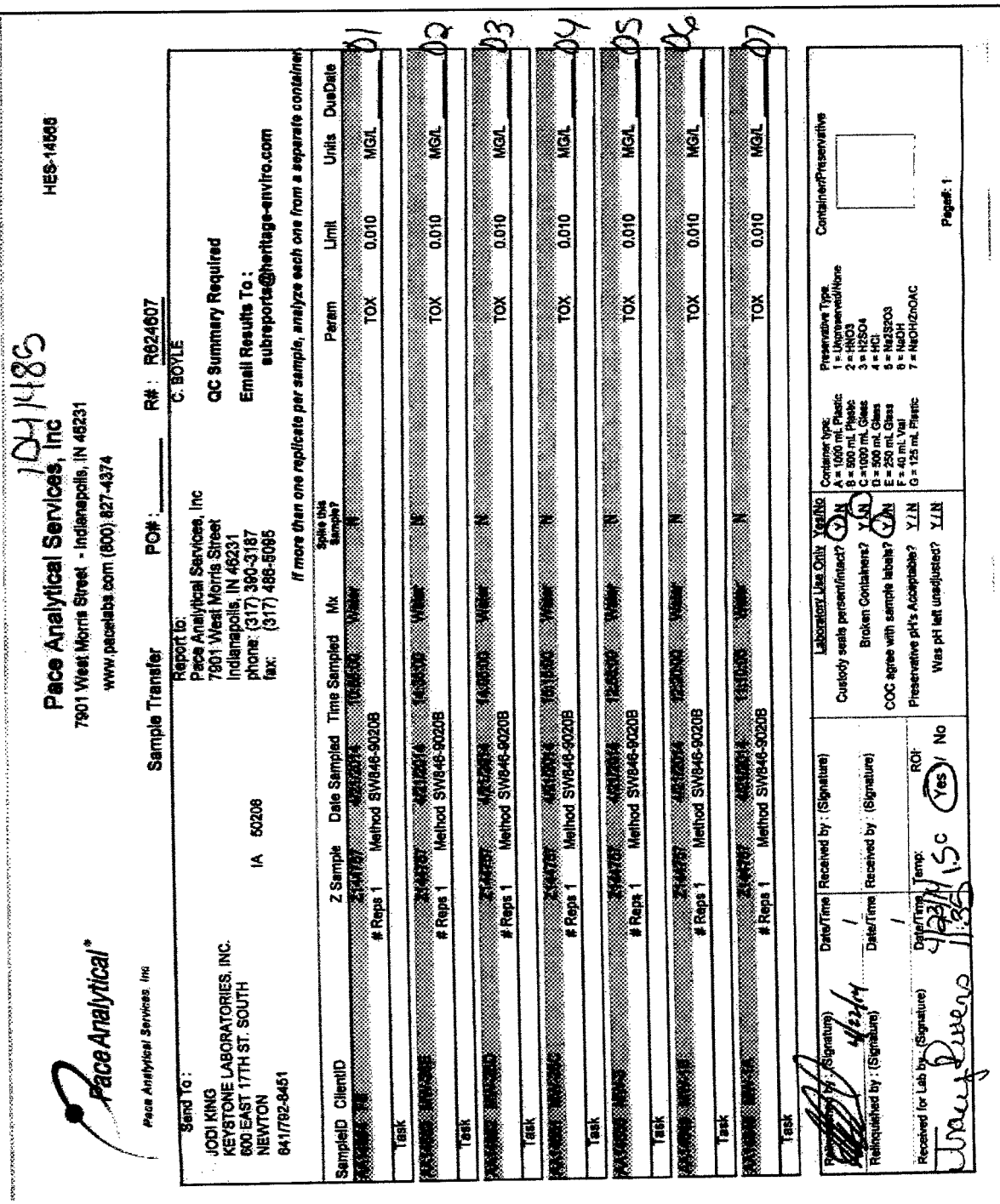
The results in this report apply to the samples analyzed in accordance with the Chain-of-Custody record. This report must be reproduced in its entirety.

Phone 641-792-8451
600 East 17th Street South
Newton, IA 50208
Fax 641-792-7989

Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis 7901 West Morris Street Indianapolis, IN 46231	Project: Subcontract Analyses Project Number: R624607 Project Manager: Chris Boyle	Reported 05/14/14 16:21



Pace Analytical Services, Inc
7901 West Morris Street - Indianapolis, IN 46231
www.pacelabs.com (800) 827-4374

HES-14566

Sample Transfer PO#: R#: R624607

Report to:
Pace Analytical Services, Inc
7901 West Morris Street
Indianapolis, IN 46231
phone: (317) 390-3187
fax: (317) 488-5085

QC Summary Required

Email Results To:
subreports@heritage-enviro.com

If more than one replicate per sample, analyze each one from a separate container

Send To:
JODI KING
KEYSTONE LABORATORIES, INC.
600 EAST 17TH ST. SOUTH
NEWTON IA 50208
641/792-8451

SampleID	ClientID	Z Sample	Date Sampled	Time Sampled	Mx	Spike this Sample?	Param	Limit	Units	DueDate
					Water	N	TOX	0.010	MG/L	
		# Reps 1	Method SW846-9020B							
Task										
					Water	N	TOX	0.010	MG/L	
		# Reps 1	Method SW846-9020B							
Task										
					Water	N	TOX	0.010	MG/L	
		# Reps 1	Method SW846-9020B							
Task										
					Water	N	TOX	0.010	MG/L	
		# Reps 1	Method SW846-9020B							
Task										
					Water	N	TOX	0.010	MG/L	
		# Reps 1	Method SW846-9020B							
Task										
					Water	N	TOX	0.010	MG/L	
		# Reps 1	Method SW846-9020B							
Task										
					Water	N	TOX	0.010	MG/L	
		# Reps 1	Method SW846-9020B							
Task										

Relinquished by: (Signature) Date/Time: Received by: (Signature)
Relinquished by: (Signature) Date/Time: Received by: (Signature)
Received for Lab by: (Signature) Date/Time: Temp: ROI: Yes No

Laboratory Use Only — Yes/No
Custody seals present/intact? Y/N
Broken Containers? Y/N
COC agree with sample labels? Y/N
Preservative pH's Acceptable? Y/N
Was pH left unadjusted? Y/N

Container types:
A = 1000 mL Plastic
B = 500 mL Plastic
C = 1000 mL Glass
D = 500 mL Glass
E = 250 mL Glass
F = 40 mL Vial
G = 125 mL Plastic

Preservative Type
1 = Unpreserved/None
2 = HNO3
3 = H2SO4
4 = HCl
5 = Na2S2O3
6 = NaOH
7 = NaOH/ZnOAc

Container/Preservative

Page#: 1

Phone 641-792-8451

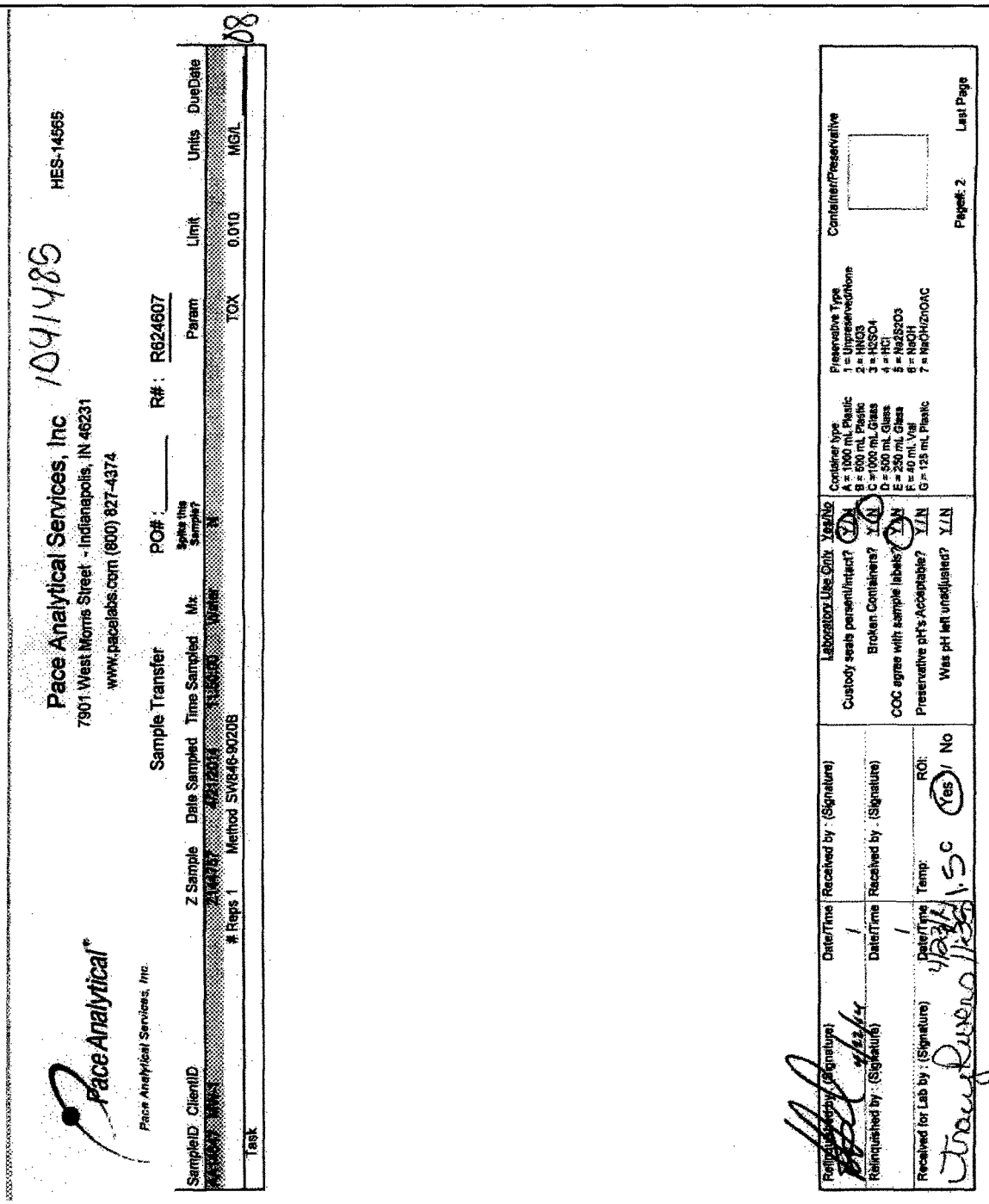
600 East 17th Street South
Newton, IA 50208

Fax 641-792-7989

Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis 7901 West Morris Street Indianapolis, IN 46231	Project: Subcontract Analyses Project Number: R624607 Project Manager: Chris Boyle	Reported 05/14/14 16:21



Pace Analytical®
Pace Analytical Services, Inc.

Pace Analytical Services, Inc 10941485 HES-14565
7901 West Morris Street - Indianapolis, IN 46231
www.pacelabs.com (800) 827-4374

Sample Transfer PO#: ____ R#: R624607

SampleID	ClientID	Z Sample	Date Sampled	Time Sampled	Mx	Spike this Sample?	Param	Limit	Units	DueDate
							TOX	0.010	MG/L	

Reps 1 Method SW846-9020B

Task

Laboratory Use Only Yes/No
Custody seals present/intact? Y N
Broken Containers? Y N
COC agree with sample labels? Y N
Preservative pH's Acceptable? Y N
Was pH left unadjusted? Y N

Container type
A = 1000 mL Plastic
B = 500 mL Plastic
C = 1000 mL Glass
D = 500 mL Glass
E = 250 mL Glass
F = 40 mL Vial
G = 125 mL Plastic

Preservative Type
1 = Unpreserved/None
2 = HNO3
3 = H2SO4
4 = HCl
5 = Na2S2O3
6 = NaOH
7 = NaOH/ZnOAC

Container/Preservative

Relinquished by : (Signature) Date/Time / Received by : (Signature)
Relinquished by : (Signature) Date/Time / Received by : (Signature)
Received for Lab by : (Signature) Date/Time 4/23/14 1130 Temp: 1.5 C ROI: Yes / No

Page#: 2 Last Page

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis 7901 West Morris Street Indianapolis, IN 46231	Project: Subcontract Analyses Project Number: R624607 Project Manager: Chris Boyle	Reported 05/14/14 16:21

AA14654 FB

1D41485-01 (Water)

Date Sampled:4/21/2014 10:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis 7901 West Morris Street Indianapolis, IN 46231	Project: Subcontract Analyses Project Number: R624607 Project Manager: Chris Boyle	Reported 05/14/14 16:21

AA14653 MW-28E

1D41485-02 (Water)

Date Sampled:4/21/2014 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis	Project: Subcontract Analyses	Reported
7901 West Morris Street	Project Number: R624607	05/14/14 16:21
Indianapolis, IN 46231	Project Manager: Chris Boyle	

AA14652 MW-28D

1D41485-03 (Water)

Date Sampled:4/21/2014 2:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis	Project: Subcontract Analyses	Reported
7901 West Morris Street	Project Number: R624607	05/14/14 16:21
Indianapolis, IN 46231	Project Manager: Chris Boyle	

AA14651 MW-28C

1D41485-04 (Water)

Date Sampled:4/21/2014 3:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	**0.045**	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis	Project: Subcontract Analyses	Reported
7901 West Morris Street	Project Number: R624607	05/14/14 16:21
Indianapolis, IN 46231	Project Manager: Chris Boyle	

AA14650 MW-3

1D41485-05 (Water)

Date Sampled:4/21/2014 12:55:00PM

Keystone Laboratories, Inc. - Newton

Determination of Conventional Chemistry Parameters

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

The results in this report apply to the samples analyzed in accordance with the Chain-of-Custody record. This report must be reproduced in its entirety.

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Keystone LABORATORIES, INC.

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Pace Analytical-Indianapolis 7901 West Morris Street Indianapolis, IN 46231	Project: Subcontract Analyses Project Number: R624607 Project Manager: Chris Boyle	Reported 05/14/14 16:21

AA14649 MW-1B

1D41485-06 (Water)

Date Sampled:4/21/2014 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis 7901 West Morris Street Indianapolis, IN 46231	Project: Subcontract Analyses Project Number: R624607 Project Manager: Chris Boyle	Reported 05/14/14 16:21

AA14648 MW-1A

1D41485-07 (Water)

Date Sampled:4/21/2014 11:10:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis	Project: Subcontract Analyses	Reported
7901 West Morris Street	Project Number: R624607	05/14/14 16:21
Indianapolis, IN 46231	Project Manager: Chris Boyle	

AA14647 MW-1

1D41485-08 (Water)

Date Sampled:4/21/2014 11:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1XE0460	05/13/14	05/14/14 09:16	EPA 9020	

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis	Project: Subcontract Analyses	Reported
7901 West Morris Street	Project Number: R624607	05/14/14 16:21
Indianapolis, IN 46231	Project Manager: Chris Boyle	

Determination of Conventional Chemistry Parameters - Quality Control

Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1XE0460 - TOX/TX/EOX										
Blank (1XE0460-BLK1)				Prepared: 05/13/14 Analyzed: 05/14/14						
Total Organic Halogens (TOX)	ND	0.010	mg/L							
LCS (1XE0460-BS1)				Prepared: 05/13/14 Analyzed: 05/14/14						
Total Organic Halogens (TOX)	0.0870	0.010	mg/L	0.0949060		91.6	80-120			
Reference (1XE0460-SRM1)				Prepared: 05/13/14 Analyzed: 05/14/14						
Total Organic Halogens (TOX)	0.0889	0.010	mg/L	0.0953376		93.3	90-110			
Reference (1XE0460-SRM2)				Prepared: 05/13/14 Analyzed: 05/14/14						
Total Organic Halogens (TOX)	0.0953	0.010	mg/L	0.0953376		100	90-110			

Certified Analyses Included in This Report

Method/Matrix	Analyte	Certifications
EPA 9020 in Water		
	Total Organic Halogens (TOX)	NELAC,KS-NT,SIA1X

Code	Certifying Authority	Certificate Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2014
KS-NT	Kansas Department of Health and Environment	E-10287	10/30/2014
MO-KC	Missouri Department of Natural Resources	140	04/30/2014
NELAC	New Jersey Department of Environmental Protection	IA001	06/30/2014
SIA1X	Iowa Department of Natural Resources	95	02/01/2014

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis	Project: Subcontract Analyses	Reported
7901 West Morris Street	Project Number: R624607	05/14/14 16:21
Indianapolis, IN 46231	Project Manager: Chris Boyle	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the Chain-of-Custody record. This report must be reproduced in its entirety.

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Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-Indianapolis	Project: Subcontract Analyses	Reported
7901 West Morris Street	Project Number: R624607	05/14/14 16:21
Indianapolis, IN 46231	Project Manager: Chris Boyle	

Sue Thompson

Sue Thompson
Project Manager II

The results in this report apply to the samples analyzed in accordance with the Chain-of-Custody record. This report must be reproduced in its entirety.

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Package # 66157

KENVIRONS, INC.

Well / Spring Field Reading Log

Facility: Green Valley LF

Date: 4/21/14 Sampler(s) BFK III

Well / Spring No.		pH	Conductivity	Temp	DO	ORP	Turbidity
Well No.	MW-1	5.80	67	8.99	6.19	40.2	930.3
Well No.	MW-1A	6.97	378	11.64	4.43	-19.4	946.7
Well No.	MW-1B	7.44	721	12.57	1.26	-44.3	948.3
Well No.	MW-3	6.20	117	11.66	2.06	21.1	994.6
Well No.	MW-28C	4.92	494	12.32	0.80	89.2	1001.7
Well No.	MW-28D	5.02	653	12.79	3.94	83.3	941.3
Well No.	MW-28E	6.18	319	14.87	6.93	22.8	951.5
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							
Well No.							

Sampler(s) Signature: Bill F. K JM Date: 4/21/14

GREEN VALLEY LANDFILL
GROUNDWATER ELEVATION DATA
2007006

Well	Top of Casing	AKGWA #	Total Depth of Well	Depth to Water	Groundwater Elevation	Date	Time
MW-1	617.80	8000-8086	14.80	3.69	614.11	4/21/14	1121
MW-1A	618.60	8000-2931	41.00	1.40	617.20	4/21/14	1040
MW-1B	618.70	8000-2932	61.00	5.94	612.76	4/21/14	1155
MW-3	630.80	8000-8085	14.10	5.05	625.75	4/21/14	1230
MW-28C	674.40	8005-7101	12.90	4.18	670.22	4/21/14	1445
MW-28D	675.20	8005-7102	16.30	4.80	670.40	4/21/14	1340
MW-28E	677.00	8005-7103	27.30	8.94	668.06	4/21/14	1410

TECHNICIAN Bill F. Knarr, III DATE 4/21/14 QUARTER 2

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-13	Total Depth (ft) 14.80	Initial Depth to Water (ft.) 3.69	Height of Water Column (ft.) 11.11	Date 4/21	Time 1121	Project No. 2007006
Site Location Greenup Co., KY	AKGWA # 8000 - 8080	Casing Diameter ☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	Measuring Point (ft. MSL) 617.80	Groundwater Elevation 614.11	Well Volume (gallons) 7.44		Z # 144757

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 60 (F°/ C°)

Time	ET (min)	Depth to Water (ft)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)
1130	0	3.69	100	0	10.70	89	6.96	5.93	36.1	969.8
1140	10	6.15	100	1.0	9.10	67	6.48	5.87	38.1	926.8
1143	13	6.52	100	1.3	9.03	67	6.25	5.83	40.1	934.1
1146	16	6.90	100	1.6	8.99	67	6.19	5.80	40.2	930.3
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU

Cont./Pres.	#
G- 40ml Vials HCL	4
G- 40ml Vials	3
P-500 ml HNO_3	1
P-500 ml H_2SO_4	1
P-500 ml Unp.	1
P-1L Unp.	
P-1L NaOH	
P-1L NaOH + Zn A	
P-120 ml Unp.	
GA- 250 ml H_2SO_4	2
GA- 250 ml H_3PO_4	
GA- 500 ml H_2SO_4	
GA- 1L Unp.	
G- 1L Unp.	

Comments

Well Cond	Pad Cond	Lock Funct	Bladder Pump	Casing S.S. ☐ Casing PVC ☒	☐ Field Blank Collected Time:
OK	OK	☒ Yes ☐ No	☒ Yes ☐ No	Filtered: ☐ Yes ☒ No	Split Sample ☐ Yes ☒ No With:

Sample Time	Depth to Water (ft)	Color	Odor	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Appearance
1150	7.41	Light Tan	None	8.99	67	6.19	5.80	40.2	930.3	Cloudy

☒ Annual ☐ Semi-Annual ☒ Quarterly BFK III ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature Brad F. K JM **Date** 4/21/14

F:\WORK IN PROGRESS\BTB\SAMPLING FORMS\GREEN VALLEY\GROUNDWATER 2007006\GREEN VALLEY STABILIZATION FORM.doc

MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill

Evaluator: BFK III

Evaluation Date: 4/21/14

Well Identification Number MW-1

AKGWA Number 8000 - 8086

	Y	N	NA	A
1) Is the well location appropriately shown on the facility permit/and or design drawing?	☒	☐	☐	▨
2) Are the wells in hard to find areas adequately flagged?	☒	☐	☐	▨
3) Is the elevation information correct?	☒	☐	☐	▨
Well Characteristics & Integrity				
4) Is the well ☒Aboveground? ☐Flush with the surface?	☐	☐	☐	▨
5) No physical damage to well?	☒	☐	☐	▨
6) Is the well labeled on the inside?	☒	☐	☐	▨
7) Is the well labeled on the outside?	☒	☐	☐	▨
8) Does the well have protective posts (if warranted)?	☒	☐	☐	▨
9) No evidence of ponded water around the well?	☒	☐	☐	▨
10) Do aboveground well have weep holes at the base of the protective cover?	☒	☐	☐	▨
11) Does the area around the well appear to be clean? (i.e., no mounds of waste; no dead animals?	☒	☐	☐	▨
12) Is the casing secure (attempt to move along perpendicular axes)?	☒	☐	☐	▨
13) Is the surface seal void of differential erosion around and under the base?	☒	☐	☐	▨
14) Is the surface seal free of cracks?	☒	☐	☐	▨
15) Is the surface seal slope to prevent ponding in the immediate vicinity of the of the surface seal?	☒	☐	☐	▨
16) Is the monitoring well locked to prevent unauthorized access?	☒	☐	☐	▨
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	▨
18) Is the locking cap free of rust?	☐	☒	☐	▨

Comments:

NOTES: 1) Response box legend:

Y = YES
N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance)
N/A = Not Applicable

2) Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-1A	Total Depth (ft) 41.00	Initial Depth to Water (ft.) 1.40	Height of Water Column (ft.) 39.60	Date 4/21	Time 1040	Project No. 2007006
Site Location Greenup Co., KY	**AKGWA #** 8000 - 2931	**Casing Diameter** [X] 4" [ ] 2" Conversion fact. 4"- 0.67/2"- 0.16	**Measuring Point (ft. MSL)** 618.60	**Groundwater Elevation** 617.20	**Well Volume (gallons)** 26.53		**Z #** 144757

[ ] Rain [ ] Sleet/Freezing Rain [ ] Snow [ ] Fog [X] Clear [ ] Partly Cloudy [ ] Overcast [ ] Windy Temp._____ (F° / C°)

Time	ET (min)	Depth to Water (ft)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Cont./Pres.	#
1050	0	1.40	100	0	12.38	386	5.04	6.73	-6.8	952.2	G ~~G~~ 40ml Vials HCL	4
1100	10	3.50	100	1.0	11.77	377	4.54	6.97	-19.6	939.7	G- 40ml Vials ~~HCl~~ H_2SO_4	3
1103	13	3.68	100	1.3	11.64	379	4.56	6.98	-19.7	991.7	P-500 ml HNO_3	1
1106	16	3.70	100	1.6	11.64	378	4.43	6.97	-19.4	946.7	P-500 ml H_2SO_4	1
											P-500 ml Unp.	1
											P-1L Unp.	
											P-1L NaOH	
											P-1L NaOH + Zn A	
											P-120 ml Unp.	
											GA- 250 ml H_2SO_4	2
											GA- 250 ml H_3PO_4	
											GA- 500 ml H_2SO_4	
											GA- 1L Unp.	
											G- 1L Unp.	
											Comments	
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU		

Well Cond.	Pad Cond	Lock Funct	Bladder Pump	Casing S.S. [ ] Casing PVC [X]	[X] Field Blank Collected Time: 1055
OK	OK	[X] Yes [ ] No	[X] Yes [ ] No	Filtered: [ ] Yes [X] No	Split Sample [ ] Yes [X] No With:

Sample Time	Depth to Water (ft)	Color	Odor	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Appearance
1110	3.71	Light Tan	None	11.64	378	4.43	6.97	-19.4	946.7	Cloudy

[X] Annual [ ] Semi-Annual [ ] Quarterly BFKTM [ ] Monthly [ ] Other [ ] Duplicate Collected Time: DTW:

Sampler(s) Signature Bill F. K TM **Date** 4/21/14

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MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill

Evaluator: BFK III

Evaluation Date: 4/21/14

Well Identification Number MW-1A

AKGWA Number 8000 - 2931

	Y	N	NA	A
1) Is the well location appropriately shown on the facility permit/and or design drawing?	☒	☐	☐	▦
2) Are the wells in hard to find areas adequately flagged?	☒	☐	☐	▦
3) Is the elevation information correct?	☒	☐	☐	▦
Well Characteristics & Integrity				
4) Is the well ☒Aboveground? ☐Flush with the surface?	☐	☐	☐	▦
5) No physical damage to well?	☒	☐	☐	▦
6) Is the well labeled on the inside?	☐	☒	☐	▦
7) Is the well labeled on the outside?	☒	☐	☐	▦
8) Does the well have protective posts (if warranted)?	☒	☐	☐	▦
9) No evidence of ponded water around the well?	☒	☐	☐	▦
10) Do aboveground well have weep holes at the base of the protective cover?	☒	☐	☐	▦
11) Does the area around the well appear to be clean? (i.e., no mounds of waste; no dead animals?	☒	☐	☐	▦
12) Is the casing secure (attempt to move along perpendicular axes)?	☒	☐	☐	▦
13) Is the surface seal void of differential erosion around and under the base?	☒	☐	☐	▦
14) Is the surface seal free of cracks?	☒	☐	☐	▦
15) Is the surface seal slope to prevent ponding in the immediate vicinity of the of the surface seal?	☒	☐	☐	▦
16) Is the monitoring well locked to prevent unauthorized access?	☒	☐	☐	▦
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	▦
18) Is the locking cap free of rust?	☐	☒	☐	▦

Comments:

NOTES: 1) Response box legend:

Y = YES
N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance)
N/A = Not Applicable

2) Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-1B	Total Depth (ft) 61.00	Initial Depth to Water (ft.) 5.94	Height of Water Column (ft.) 55.06	Date 4/21	Time 1155	Project No. 2007006
Site Location Greenup Co., KY	AKGWA # 8000 – 2932	Casing Diameter ☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	Measuring Point (ft. MSL) 618.70	Groundwater Elevation 612.76	Well Volume (gallons) 36.89		Z # 144757

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 60 (F° / C°)

Time	ET (min)	Depth to Water (ft)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Cont./Pres.	#
1200	0	5.94	100	0	12.88	724	5.79	6.36	13.0	937.7	GA- 40ml Vials HCL	
1210	10	8.84	100	1.0	12.59	728	1.20	7.35	-39.7	947.1	G- 40ml Vials HCL	
1213	13	9.69	100	1.3	12.57	725	1.27	7.39	-43.9	946.9	P-500 ml HNO_3	
1216	16	10.07	100	1.6	12.57	721	1.26	7.44	-44.3	948.3	P-500 ml H_2SO_4	
											P-500 ml Unp.	
											P-1L Unp.	
											P-1L NaOH	
											P-1L NaOH + Zn A	
											P-120 ml Unp.	
											GA- 250 ml H_2SO_4	
											GA- 250 ml H_3PO_4	
											GA- 500 ml H_2SO_4	
											GA- 1L Unp.	
											G- 1L Unp.	
											Comments	
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU		

Well Cond.	Pad Cond	Lock Funct	Bladder Pump	Casing S.S. ☐ Casing PVC ☒	☐ Field Blank Collected Time:
OK	OK	☒ Yes ☐ No	☒ Yes ☐ No	Filtered: ☐ Yes ☒ No	Split Sample ☐ Yes ☒ No With:

Sample Time	Depth to Water (ft)	Color	Odor	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Appearance
1220	11.03	none	None	12.57	721	1.26	7.44	-44.3	948.3	clear

☒ Annual ☐ Semi-Annual ☒ Quarterly ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

BFL JH

Sampler(s) Signature Bill F. K JH **Date** 4/21/14

MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill
Evaluator: BFK III
Evaluation Date: 4/21/14
Well Identification Number MW-18
AKGWA Number 8000-2932

	Y	N	NA	A
1) Is the well location appropriately shown on the facility permit/and or design drawing?	☒	☐	☐	▦
2) Are the wells in hard to find areas adequately flagged?	☒	☐	☐	▦
3) Is the elevation information correct?	☒	☐	☐	▦
Well Characteristics & Integrity				
4) Is the well ☒Aboveground? ☐Flush with the surface?	☐	☐	☐	▦
5) No physical damage to well?	☒	☐	☐	▦
6) Is the well labeled on the inside?	☒	☐	☐	▦
7) Is the well labeled on the outside?	☒	☐	☐	▦
8) Does the well have protective posts (if warranted)?	☒	☐	☐	▦
9) No evidence of ponded water around the well?	☒	☐	☐	▦
10) Do aboveground well have weep holes at the base of the protective cover?	☒	☐	☐	▦
11) Does the area around the well appear to be clean? (i.e., no mounds of waste; no dead animals?	☒	☐	☐	▦
12) Is the casing secure (attempt to move along perpendicular axes)?	☒	☐	☐	▦
13) Is the surface seal void of differential erosion around and under the base?	☒	☐	☐	▦
14) Is the surface seal free of cracks?	☒	☐	☐	▦
15) Is the surface seal slope to prevent ponding in the immediate vicinity of the of the surface seal?	☒	☐	☐	▦
16) Is the monitoring well locked to prevent unauthorized access?	☒	☐	☐	▦
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	▦
18) Is the locking cap free of rust?	☐	☒	☐	▦

Comments:

NOTES: 1) Response box legend:
Y = YES
N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance)
N/A = Not Applicable
2) Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-3	Total Depth (ft) 14.10	Initial Depth to Water (ft.) 5.05	Height of Water Column (ft.) 9.05	Date 4/21	Time 1230	Project No. 2007006
Site Location Greenup Co., KY	AKGWA # 8000 – 8085	Casing Diameter ☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	Measuring Point (ft. MSL) 630.80	Groundwater Elevation 625.75	Well Volume (gallons) 6.06		Z # 144757

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 65 (F° / C°)

Time	ET (min)	Depth to Water (ft)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Cont./Pres.	#
1235	0	5.05	100	0	12.41	148	4.01	6.20	22.4	1012.6	G- 40ml Vials HCL	4
1245	10	6.01	100	1.0	11.83	112	2.98	6.22	20.1	992.2	G- 40ml Vials Na_2SO_3	3
1248	13	6.55	100	1.3	11.52	115	1.98	6.21	20.6	1028.6	P-500 ml HNO_3	1
1251	16	6.54	100	1.6	11.66	117	2.06	6.20	21.1	994.6	P-500 ml H_2SO_4	1
											P-500 ml Unp.	1
											P-1L Unp.	
											P-1L NaOH	
											P-1L NaOH + Zn A	
											P-120 ml Unp.	
											GA- 250 ml H_2SO_4	2
											GA- 250 ml H_3PO_4	
											GA- 500 ml H_2SO_4	
											GA- 1L Unp.	
											G- 1L Unp.	
											Comments	
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU		

Well Cond	Pad Cond	Lock Funct	Bladder Pump	Casing S.S. ☐ Casing PVC ☒	☐ Field Blank Collected Time:
OK	OK	☒ Yes ☐ No	☒ Yes ☐ No	Filtered: ☐ Yes ☒ No	Split Sample ☐ Yes ☒ No With:

Sample Time	Depth to Water (ft)	Color	Odor	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Appearance
1255	5.87	Tan	None	11.66	117	2.06	6.20	21.1	994.6	cloudy

☒ Annual ☐ Semi-Annual ☒ Quarterly BFK III ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature Bill F. Kee III **Date** 4/21/14

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MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill

Evaluator: BFK III

Evaluation Date: 4/21/14

Well Identification Number ~~8000-8085~~ MW-3

AKGWA Number 8000-8085

	Y	N	NA	A
1) Is the well location appropriately shown on the facility permit/and or design drawing?	☒	☐	☐	▦
2) Are the wells in hard to find areas adequately flagged?	☒	☐	☐	▦
3) Is the elevation information correct?	☒	☐	☐	▦
Well Characteristics & Integrity				
4) Is the well ☒Aboveground? ☐Flush with the surface?	☐	☐	☐	▦
5) No physical damage to well?	☒	☐	☐	▦
6) Is the well labeled on the inside?	☒	☐	☐	▦
7) Is the well labeled on the outside?	☒	☐	☐	▦
8) Does the well have protective posts (if warranted)?	☒	☐	☐	▦
9) No evidence of ponded water around the well?	☒	☐	☐	▦
10) Do aboveground well have weep holes at the base of the protective cover?	☒	☐	☐	▦
11) Does the area around the well appear to be clean? (i.e., no mounds of waste; no dead animals?	☒	☐	☐	▦
12) Is the casing secure (attempt to move along perpendicular axes)?	☒	☐	☐	▦
13) Is the surface seal void of differential erosion around and under the base?	☒	☐	☐	▦
14) Is the surface seal free of cracks?	☒	☐	☐	▦
15) Is the surface seal slope to prevent ponding in the immediate vicinity of the of the surface seal?	☒	☐	☐	▦
16) Is the monitoring well locked to prevent unauthorized access?	☒	☐	☐	▦
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	▦
18) Is the locking cap free of rust?	☐	☒	☐	▦

Comments:

NOTES: 1) Response box legend:

Y = YES
N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance)
N/A = Not Applicable

2) Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-28C	Total Depth (ft) 12.90	Initial Depth to Water (ft.) 4.18	Height of Water Column (ft.) 8.72	Date 4/21	Time 1445	Project No. 2007006
Site Location Greenup Co., KY	AKGWA # 8005 – 7101	Casing Diameter ☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	Measuring Point (ft. MSL) 674.40	Groundwater Elevation 670.22	Well Volume (gallons) 5.84		Z # 144757

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 70 (F°) C°)

Time	ET (min)	Depth to Water (ft)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Cont./Pres.	#
1455	0	4.18	100	0	15.01	504	4.01	5.14	78.9	1146.5	6 G- 40ml Vials HCL	4
1505	10	5.14	100	1.0	12.54	498	0.84	4.95	87.5	1000.7	G- 40ml Vials ~~HCL~~ $NazSO_3$	3
1508	13	5.17	100	1.3	12.48	497	0.85	4.94	88.3	1002.3	P-500 ml HNO_3	1
1511	16	5.21	100	1.6	12.32	494	0.80	4.92	89.2	1001.7	P-500 ml H_2SO_4	1
											P-500 ml Unp.	1
											P-1L Unp.	
											P-1L NaOH	
											P-1L NaOH + Zn A	
											P-120 ml Unp.	
											GA- 250 ml H_2SO_4	2
											GA- 250 ml H_3PO_4	
											GA- 500 ml H_2SO_4	
											GA- 1L Unp.	
											G- 1L Unp.	
											Comments	
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU		

Well Cond	Pad Cond	Lock Funct	Bladder Pump	Casing S.S. ☐ Casing PVC ☒	☐ Field Blank Collected Time
OK	OK	☐ Yes ☒ No Need lock	☒ Yes ☐ No	Filtered: ☐ Yes ☒ No	Split Sample ☐ Yes ☒ No With:

Sample Time	Depth to Water (ft)	Color	Odor	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Appearance
1515	5.166	Orange	Slight	12.32	494	0.80	4.92	89.2	1001.7	murky

☒ Annual	☐ Semi-Annual	☐ Quarterly	☐ Monthly	☐ Other		☐ Duplicate Collected Time: DTW:

Sampler(s) Signature Bill K. JM **Date** 4/21/14

MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill
Evaluator: MW-28C
Evaluation Date: 4/21/14
Well Identification Number MW-28C
AKGWA Number 8005-7101

	Y	N	NA	A
1) Is the well location appropriately shown on the facility permit/and or design drawing?	☒	☐	☐	▨
2) Are the wells in hard to find areas adequately flagged?	☒	☐	☐	▨
3) Is the elevation information correct?	☒	☐	☐	▨
Well Characteristics & Integrity				
4) Is the well ☒Aboveground?☐Flush with the surface?	☐	☐	☐	▨
5) No physical damage to well?	☒	☐	☐	▨
6) Is the well labeled on the inside?	☐	☒	☐	▨
7) Is the well labeled on the outside?	☒	☐	☐	▨
8) Does the well have protective posts (if warranted)?	☒	☐	☐	▨
9) No evidence of ponded water around the well?	☒	☐	☐	▨
10) Do aboveground well have weep holes at the base of the protective cover?	☒	☐	☐	▨
11) Does the area around the well appear to be clean? (i.e., no mounds of waste; no dead animals?	☒	☐	☐	▨
12) Is the casing secure (attempt to move along perpendicular axes)?	☒	☐	☐	▨
13) Is the surface seal void of differential erosion around and under the base?	☒	☐	☐	▨
14) Is the surface seal free of cracks?	☒	☐	☐	▨
15) Is the surface seal slope to prevent ponding in the immediate vicinity of the of the surface seal?	☒	☐	☐	▨
16) Is the monitoring well locked to prevent unauthorized access?	☐	☒	☐	▨
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	▨
18) Is the locking cap free of rust?	☐	☒	☐	▨

Comments: Need Lock

NOTES: 1) Response box legend:
Y = YES
N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance)
N/A = Not Applicable
2) Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-28D	Total Depth (ft) 16.30	Initial Depth to Water (ft.) 4.80	Height of Water Column (ft.) 11.50	Date 4/21	Time 1340	Project No. 2007006
Site Location Greenup Co., KY	AKGWA # 8005 – 7102	Casing Diameter ☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	Measuring Point (ft. MSL) 675.20	Groundwater Elevation 670.4	Well Volume (gallons) 7.70		Z # 144757

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 70 (F°)/ C°)

Time	ET (min)	Depth to Water (ft)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Cont./Pres.	#
1345	0	4.80	100	0	15.21	649	4.27	5.14	78.7	967.8	6 40ml Vials HCL	4
1355	10	5.74	100	1.0	12.91	653	4.07	5.06	81.7	950.3	G- 40ml Vials Na_2SO_3	3
1358	13	6.02	100	1.3	12.87	652	3.91	5.04	82.7	945.9	P-500 ml HNO_3	1
1401	16	6.54	100	1.6	12.79	653	3.94	5.02	83.3	941.3	P-500 ml H_2SO_4	1
											P-500 ml Unp.	1
											P-1L Unp.	
											P-1L NaOH	
											P-1L NaOH + Zn A	
											P-120 ml Unp.	
											GA- 250 ml H_2SO_4	2
											GA- 250 ml H_3PO_4	
											GA- 500 ml H_2SO_4	
											GA- 1L Unp.	
											G- 1L Unp.	
											Comments	
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU		

Well Cond	Pad Cond	Lock Funct	Bladder Pump	Casing S.S. ☐ Casing PVC ☒	☐ Field Blank Collected Time:
OK	OK	☐ Yes ☒ No Needs Lock	☒ Yes ☐ No	Filtered: ☐ Yes ☒ No	Split Sample ☐ Yes ☒ No With:

Sample Time	Depth to Water (ft)	Color	Odor	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Appearance
1405	7.17	None	None	12.79	653	3.94	5.02	83.3	941.3	Clear

☒ Annual ☐ Semi-Annual ☒ Quarterly BEK JM ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature BDD E. K JM **Date** 4/21/14

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MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill

Evaluator: BFK III

Evaluation Date: 4/21/14

Well Identification Number MW-28D

AKGWA Number 8005-7102

	Y	N	NA	A
1) Is the well location appropriately shown on the facility permit/and or design drawing?	☒	☐	☐	▦
2) Are the wells in hard to find areas adequately flagged?	☒	☐	☐	▦
3) Is the elevation information correct?	☒	☐	☐	▦
Well Characteristics & Integrity				
4) Is the well ☒Aboveground? ☐Flush with the surface?	☐	☐	☐	▦
5) No physical damage to well?	☒	☒	☐	▦
6) Is the well labeled on the inside?	☐	☐	☐	▦
7) Is the well labeled on the outside?	☒	☐	☐	▦
8) Does the well have protective posts (if warranted)?	☒	☐	☐	▦
9) No evidence of ponded water around the well?	☒	☐	☐	▦
10) Do aboveground well have weep holes at the base of the protective cover?	☒	☐	☐	▦
11) Does the area around the well appear to be clean? (i.e., no mounds of waste; no dead animals?	☒	☐	☐	▦
12) Is the casing secure (attempt to move along perpendicular axes)?	☒	☐	☐	▦
13) Is the surface seal void of differential erosion around and under the base?	☒	☐	☐	▦
14) Is the surface seal free of cracks?	☒	☐	☐	▦
15) Is the surface seal slope to prevent ponding in the immediate vicinity of the of the surface seal?	☒	☐	☐	▦
16) Is the monitoring well locked to prevent unauthorized access?	BFK III ☒	☒	☐	▦
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	▦
18) Is the locking cap free of rust?	☐	☒	☐	▦

Comments: Needs a lock.

NOTES: 1) Response box legend:

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N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance)
N/A = Not Applicable

2) Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-28E	Total Depth (ft) 27.30	Initial Depth to Water (ft.) 8.94	Height of Water Column (ft.) 18.36	Date 4/21	Time 1410	Project No. 2007006
Site Location Greenup Co., KY	AKGWA # 8005 - 7103	Casing Diameter ☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	Measuring Point (ft. MSL) 677.0	Groundwater Elevation 668.06	Well Volume (gallons) 12.30		Z # 144757

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☒ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 70 (F° / C°)

Time	ET (min)	Depth to Water (ft)	Purge Rate ml/min	Volume Purged (L)	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Cont./Pres.	#
1417	0	8.94	100	0	15.61	359	6.28	5.89	38.6	966.6	6 40ml Vials HCL	4
1427	10	9.60	100	1.0	15.08	321	6.83	6.14	24.9	954.2	G- 40ml Vials Na_2SO_3	3
1430	13	9.72	100	1.3	14.94	320	7.63	6.17	23.7	957.3	P-500 ml HNO_3	1
1433	16	9.84	100	1.6	14.87	319	6.93	6.18	22.8	951.5	P-500 ml H_2SO_4	1
											P-500 ml Unp.	1
											P-1L Unp.	
											P-1L NaOH	
											P-1L NaOH + Zn A	
											P-120 ml Unp.	
											GA- 250 ml H_2SO_4	2
											GA- 250 ml H_3PO_4	
											GA- 500 ml H_2SO_4	
											GA- 1L Unp.	
											G- 1L Unp.	
											Comments	
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU		

Well Cond.	Pad Cond	Lock Funct	Bladder Pump	Casing S.S. ☐ Casing PVC ☒	☐ Field Blank Collected Time:
OK	OK	☒ Yes ☐ No	☒ Yes ☐ No	Filtered: ☐ Yes ☒ No	Split Sample ☐ Yes ☒ No With:

Sample Time	Depth to Water (ft)	Color	Odor	Temp (°C)	Sp. Cond (µS or mS)	DO (mg/L)	pH (SU)	eH/ORP (mV)	Turbidity (ntu)	Appearance
1435	10.07	None	None	14.87	319	6.93	6.18	22.8	951.5	Clear

☒ Annual ☐ Semi-Annual ☐ Quarterly ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature B.D K.K M **Date** 4/21/14

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MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill
Evaluator: BFK III
Evaluation Date: 4/21/14
Well Identification Number MW-28E
AKGWA Number 8005-7103

	Y	N	NA	A
1) Is the well location appropriately shown on the facility permit/and or design drawing?	☒	☐	☐	▨
2) Are the wells in hard to find areas adequately flagged?	☒	☐	☐	▨
3) Is the elevation information correct?	☒	☐	☐	▨
Well Characteristics & Integrity				
4) Is the well ☒Aboveground?☐Flush with the surface?	☐	☐	☐	▨
5) No physical damage to well?	☒	☐	☐	▨
6) Is the well labeled on the inside?	☐	☒	☐	▨
7) Is the well labeled on the outside?	☒	☐	☐	▨
8) Does the well have protective posts (if warranted)?	☒	☐	☐	▨
9) No evidence of ponded water around the well?	☒	☐	☐	▨
10) Do aboveground well have weep holes at the base of the protective cover?	☒	☐	☐	▨
11) Does the area around the well appear to be clean? (i.e., no mounds of waste; no dead animals?	☒	☐	☐	▨
12) Is the casing secure (attempt to move along perpendicular axes)?	☒	☐	☐	▨
13) Is the surface seal void of differential erosion around and under the base?	☒	☐	☐	▨
14) Is the surface seal free of cracks?	☒	☐	☐	▨
15) Is the surface seal slope to prevent ponding in the immediate vicinity of the of the surface seal?	☒	☐	☐	▨
16) Is the monitoring well locked to prevent unauthorized access?	☒	☐	☐	▨
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	▨
18) Is the locking cap free of rust?	☐	☒	☐	▨

Comments:

NOTES: 1) Response box legend:

Y = YES
N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance)
N/A = Not Applicable

2) Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS