JETT ENVIRONMENTAL CONSULTING

February 6, 2015

1502

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

Re: First Quarter 2015 Groundwater Sampling Event, Statistical Analysis Report
Green Valley Landfill, Ashland, Kentucky

Dear Ms. DeLong:

On behalf of the Green Valley Landfill, Jett Environmental Consulting is submitting a hardcopy of the First Quarter 2015 Groundwater Statistical Analysis Report.

If you have any questions or comments, please contact me at steve.jett@jettenviro.com or 314-496-4654.

Sincerely,

Steve Jett, P.G.
Owner

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

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

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SOLID WASTE BRANCH

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Groundwater
Statistical Analysis Report

First Quarter 2015
Sampling Event

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

February 2015

Prepared by:

JETT ENVIRONMENTAL CONSULTING

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1.0 INTRODUCTION

On behalf of Green Valley Landfill General Partnership, Jett Environmental Consulting statistically evaluated the First Quarter (January) 2015 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

Jett Environmental Consulting statistically analyzed parameters from the Green Valley Landfill First Quarter 2015 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 First Quarter 2015 sampling event, each well was sampled for the quarterly parameters listed in Section 11(3)(f).

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 First Quarter 2015 event. Groundwater flow direction for the First Quarter 2015 event is generally to the west/northwest, consistent with past events. Groundwater flow rate for the First Quarter 2015 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 January 2015 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 January 2015 event, six results exceeded an intra-well prediction limit: total iron at MW-1A; chloride, field specific conductance, and total dissolved solids (TDS) at MW-3; chloride at MW-28D; and total iron at MW-28E. None of these parameters have an established National Primary Drinking Water Standard-Maximum Contaminant Level (MCL) or KDEP MCL. **Table 3** summarizes the January 2015 prediction limit exceedances. Included in **Appendix B** are the prediction interval summary tables.

Three of the six statistical exceedances observed during the January 2015 event (chloride and specific conductance at MW-3; and chloride at MW-28D) were observed during the previous quarterly event (Fourth Quarter 2014), and represent confirmed exceedances. It is recommended to utilize the next quarterly event (April 2015) as a verification sampling event to confirm the three new exceedances (iron at MW-1A; TDS at MW-3; and iron at MW-28E).

The following points are noted with respect to the confirmed intra-well prediction limit exceedances observed during the January 2015 event:

- The January 2015 chloride concentrations at MW-3 (28.7 mg/L) and MW-28D (26.4 mg/L) are well below the National Secondary Drinking Water Standard of 250 mg/L. The January 2015 chloride concentrations at MW-3 and MW-28D are consistent with historical concentrations at MW-28C (5.8 to 38 mg/L) and MW-1B (6.23 to 52.4 mg/L). The chloride increase during the January 2015 event at MW-3 and MW-28D appears to be due to naturally occurring conditions.

- The January 2015 field specific conductance at MW-3 (595 umhos/cm) is consistent with historical specific conductance values at MW-3 (52 to 815 umhos/cm). The January 2015 specific conductance at MW-3 (595 umhos/cm) is lower than the January 2015 specific conductance at wells upgradient and downgradient to MW-3 (e.g., MW-28D, 602 umhos/cm; and MW-1B, 693 umhos/cm). The slightly higher specific conductance during the January 2015 event at MW-3 appears to be due to naturally occurring conditions.

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 January 2015 event.

5.0 STATISTICAL RESULTS SUMMARY

During the January 2015 event, six results exceeded an intra-well prediction limit: total iron at MW-1A; chloride, field specific conductance, and TDS at MW-3; chloride at MW-28D; and total iron at MW-28E. None of these parameters have an established National Primary Drinking Water Standard-MCL or KDEP MCL.

Three of the six statistical exceedances observed during the January 2015 event (chloride and specific conductance at MW-3; and chloride at MW-28D) were observed during the previous quarterly event (Fourth Quarter 2014), and represent confirmed exceedances. The remaining three exceedances observed during the January 2015 event (iron at MW-1A; TDS at MW-3; and iron at MW-28E) represent initial, unconfirmed exceedances. It is recommended to utilize the next quarterly event (April 2015) as a verification sampling event to confirm the three new exceedances.

The three January 2015 values that exhibited confirmed statistical exceedances are either (1) consistent with historical data for the respective wells, (2) consistent with adjacent wells, or (3) lower in concentration than upgradient wells. Therefore, the January 2015 confirmed exceedances appear due to naturally occurring conditions and not attributable to the landfill.

Continuation of Detection Monitoring is recommended for the site.

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).

•Background dates taken from Groundwater Statistical Monitoring Plan dated December 9, 2011 and approved by KDEP on August 16, 2012.

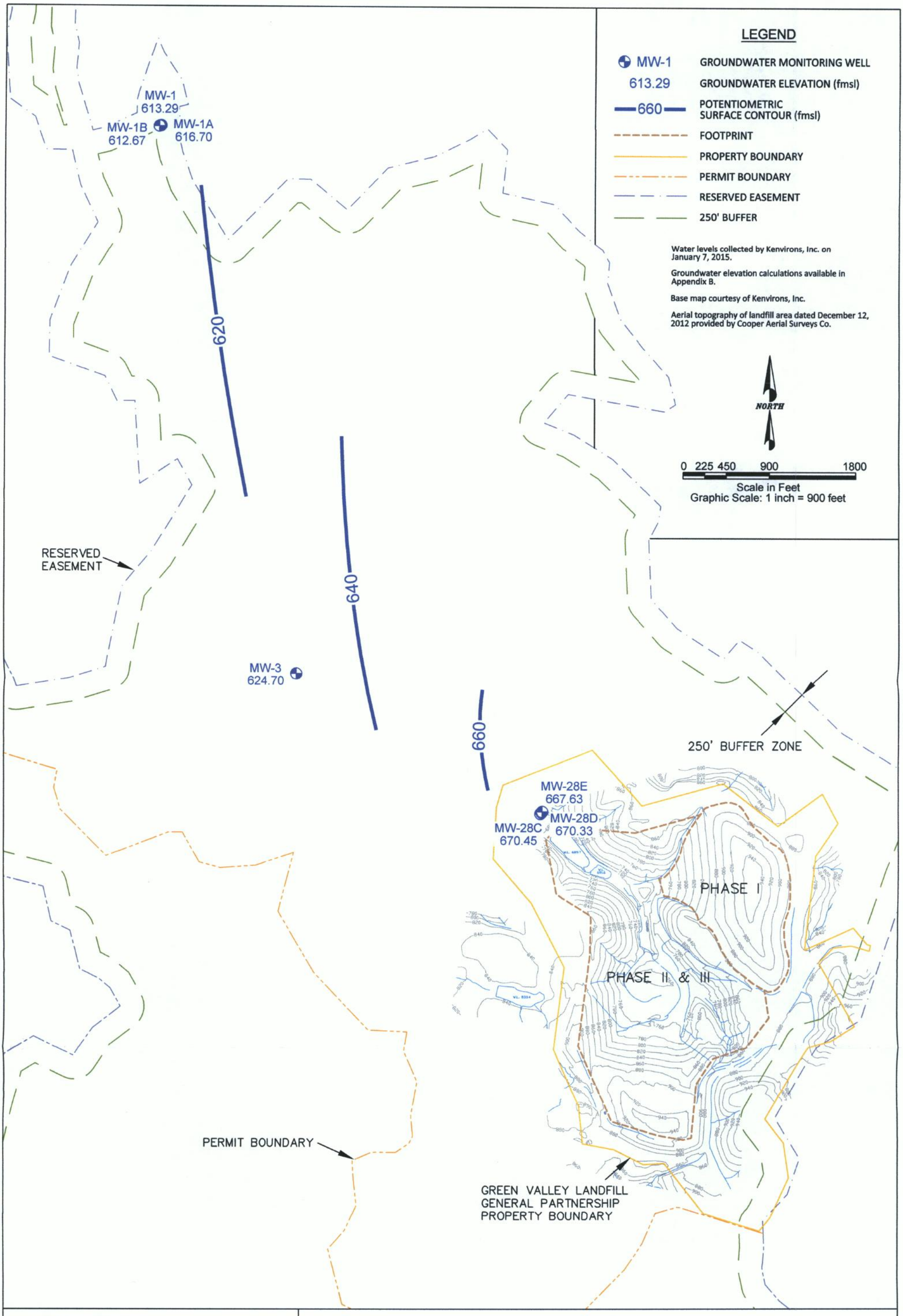
TABLE 3
INTRA-WELL PREDICTION LIMIT EXCEEDANCES
FOURTH QUARTER 2014 MONITORING EVENT
GREEN VALLEY LANDFILL

Well	Parameter	Results	Prediction Limit
MW-1A	pH (field)	5.88 SU	6.20 - 8.00 SU
MW-3	Chloride	28 mg/L	15 mg/L
	Specific Conductance (field)	528 umhos/cm	430 umhos/cm
MW-28D	Chloride	25 mg/L	23 mg/L
	Total Organic Carbon (TOC)	2.4 mg/L	2.1 mg/L
MW-28E	pH (field)	5.66 SU	6.00 - 7.00 SU

APPENDICES

APPENDIX A

POTENTIOMETRIC SURFACE MAP



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First Quarter 2015 Event
Alluvial-Fracture Zone, Potentiometric Surface Map
Green Valley Landfill, Ashland, Kentucky

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	4.51	613.29
MW-1A	618.60	1.90	616.70
MW-1B	618.70	6.03	612.67
MW-3	630.80	6.10	624.70
MW-28C	674.40	3.95	670.45
MW-28D	675.20	4.87	670.33
MW-28E	677.00	9.37	667.63

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 1/7/2015.

Groundwater Flow Velocity Calculations
Green Valley Landfill, Kentucky
First Quarter 2015 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_1) 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 1×10^2 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 potentiometric surface map from well MW-28C to well MW-1.

Gradient(i) = Change in Groundwater Elevation along Flow Path
i: From MW-28C (670.45 fmsl) to MW-1 (613.29 fmsl)/ Distance = 57.16 ft / 8,199 ft = 0.007

APPENDIX B

STATISTICAL EVALUATIONS

INTRA-WELL PREDICTION LIMITS
OLDER WELLS
QUARTERLY PARAMETERS

Prediction Limit

Facility: Green Valley Client: RSI Data File: GREENVALLEY Printed 1/28/2015, 2:03 PM

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	1/7/2015	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	1/7/2015	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	1/7/2015	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	1/7/2015	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	1/7/2015	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	1/7/2015	3.6	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	1/7/2015	37.5	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**	**1/7/2015**	**28.7**	**Yes**	**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	1/7/2015	0.55	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**	**1/7/2015**	**18.1**	**Yes**	**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	1/7/2015	0.5118	No	85	n/a	n/a	4.706	n/a	n/a	0.0002694	NP Intra (normality) 1 of 2 Deseas
Iron Total (mg/L)	MW-3	58	n/a	1/7/2015	9.3	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	1/7/2015	7.39	No	84	6.5	0.8894	0	None	No	0.0003657	Param Intra 1 of 2
pH [Field] (su)	MW-1A	8	6.2	1/7/2015	7.53	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	1/7/2015	7.99	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	1/7/2015	5.89	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	1/7/2015	1.941	No	82	0.703	0.3848	0	None	ln(x)	0.0007314	Param Intra 1 of 2 Deseas
Sodium Total (mg/L)	MW-1A	360	n/a	1/7/2015	22.4	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	1/7/2015	130	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	1/7/2015	17.3	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	880	n/a	1/7/2015	88.06	No	84	n/a	n/a	0	n/a	n/a	0.0002756	NP Intra (normality) 1 of 2 Deseas
Specific Conductance [Field] (umhos/cm)	MW-1A	440	n/a	1/7/2015	397	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	1/7/2015	693	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**	**1/7/2015**	**595**	**Yes**	**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	1/7/2015	47	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	1/7/2015	244	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	1/7/2015	383	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**	**1/7/2015**	**385**	**Yes**	**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	1/7/2015	0.5ND	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	1/7/2015	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	1/7/2015	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	1/7/2015	0.5ND	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	n/a	1 future	n/a	84	n/a	n/a	78.57	n/a	n/a	0.001102	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-1A	1.0	n/a	n/a	1 future	n/a	85	n/a	n/a	74.12	n/a	n/a	0.001077	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-1B	0.27	n/a	n/a	1 future	n/a	85	n/a	n/a	60	n/a	n/a	0.001077	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-3	0.37	n/a	n/a	1 future	n/a	82	n/a	n/a	67.07	n/a	n/a	0.001152	NP Intra (NDs) 1 of 2

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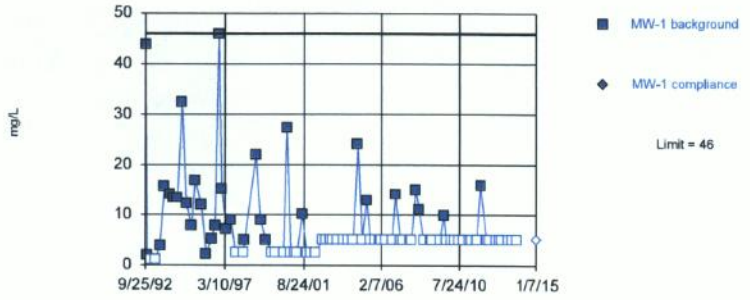
Hollow symbols indicate censored values.

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. Seasonality was not detected with 95% confidence.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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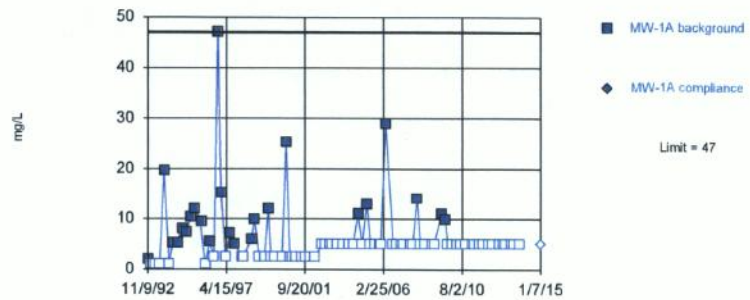
Hollow symbols indicate censored values.

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. Seasonality was not detected with 95% confidence.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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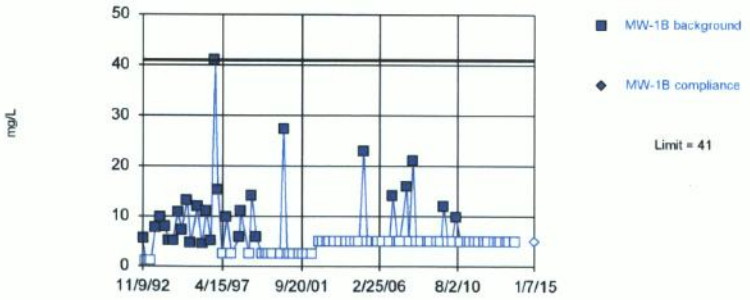
Hollow symbols indicate censored values.

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. Seasonality was not detected with 95% confidence.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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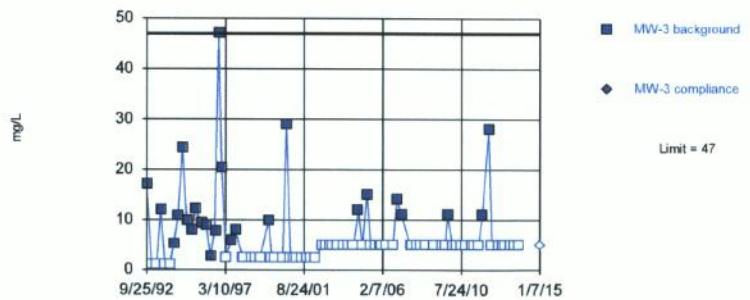
Hollow symbols indicate censored values.

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. Seasonality was not detected with 95% confidence.

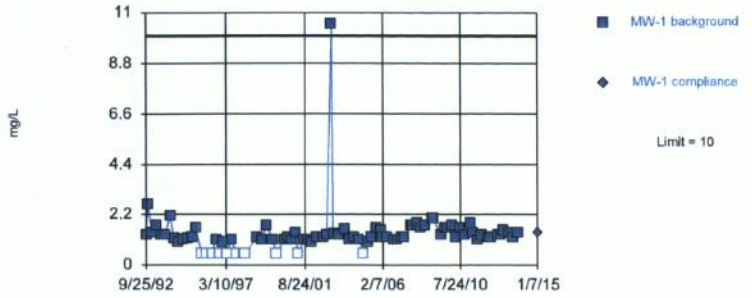
Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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. Seasonality was not detected with 95% confidence.

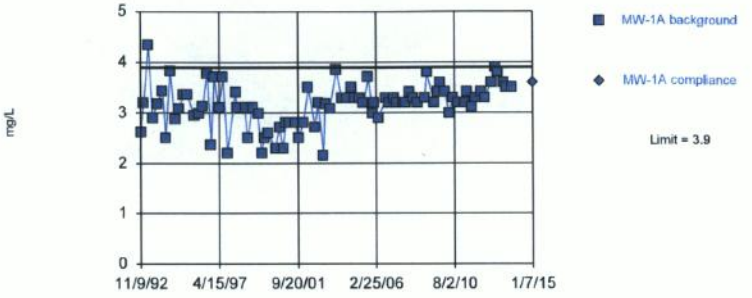
Constituent: Chloride Analysis Run 1/28/2015 2:00 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=10.16, Std. Dev.=2.663, n=85. Seasonality was not detected with 95% confidence. 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.

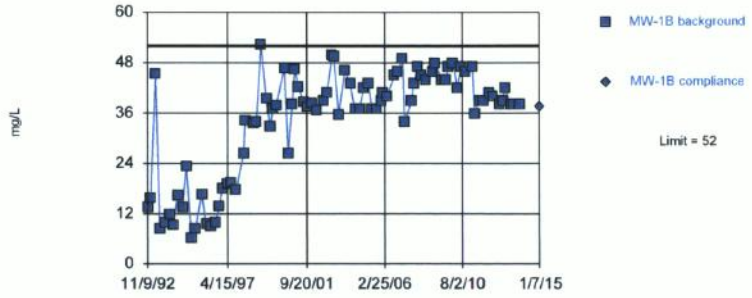
Constituent: Chloride Analysis Run 1/28/2015 2:00 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

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. Seasonality was not detected with 95% confidence.

Constituent: Chloride Analysis Run 1/28/2015 2:00 PM

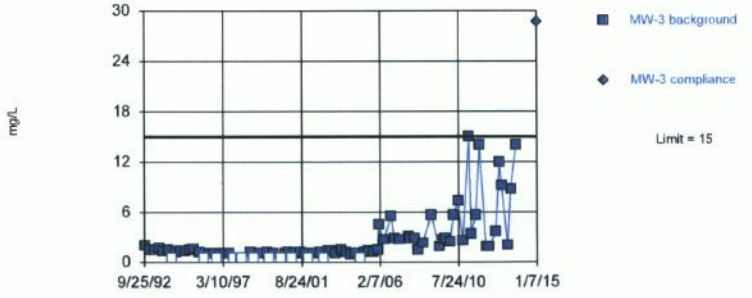
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Hollow symbols indicate censored values.

Exceeds 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. Seasonality was not detected with 95% confidence.

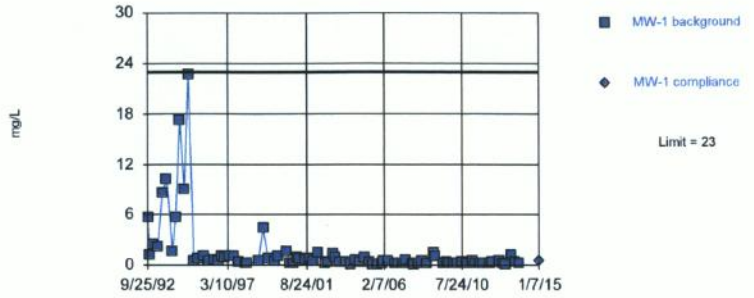
Constituent: Chloride Analysis Run 1/28/2015 2:00 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

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. Seasonality was not detected with 95% confidence.

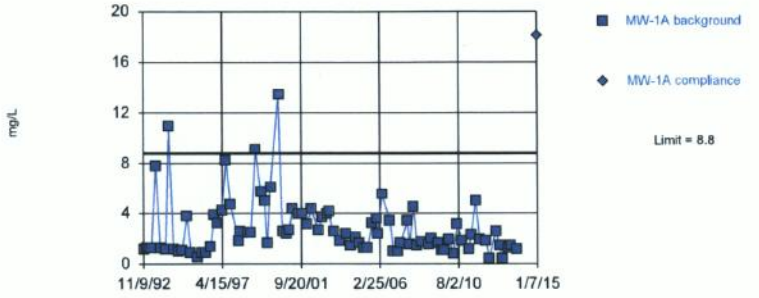
Constituent: Iron Total Analysis Run 1/28/2015 2:00 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.7703, Std. Dev.=0.7023, n=85. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:00 PM

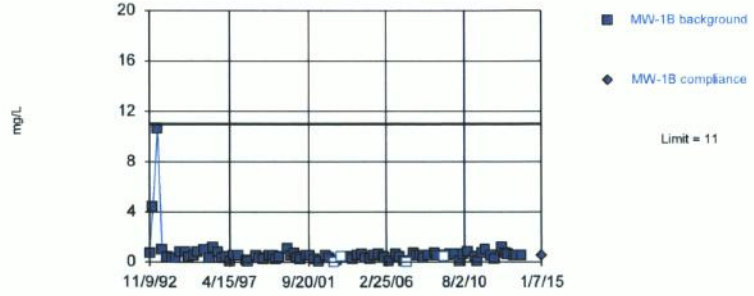
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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. Data were deseasonalized.

Constituent: Iron Total Analysis Run 1/28/2015 2:00 PM

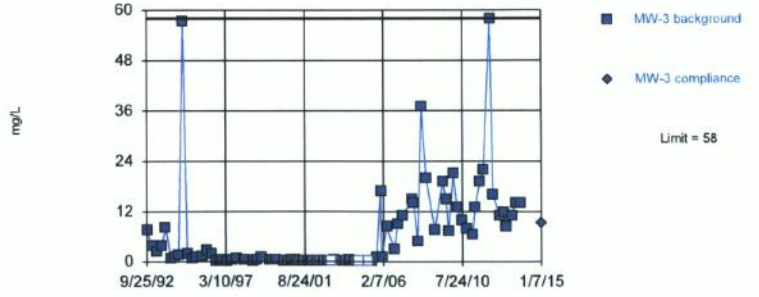
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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. Seasonality was not detected with 95% confidence.

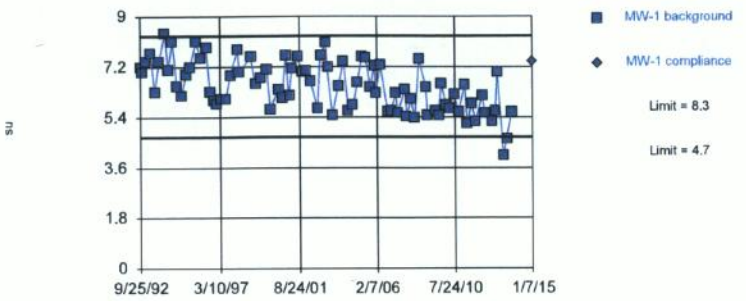
Constituent: Iron Total Analysis Run 1/28/2015 2:00 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limits

Prediction Limit

Intrawell Parametric



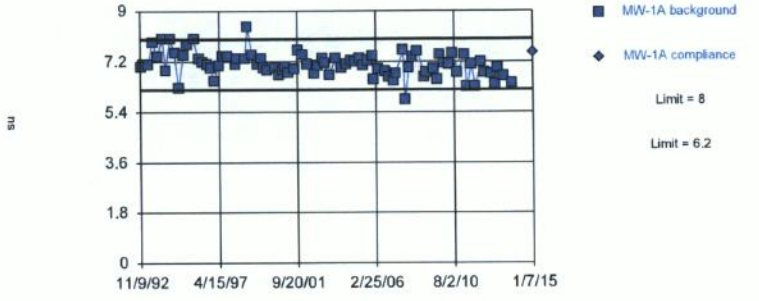
Background Data Summary: Mean=6.5, Std. Dev.=0.8894, n=84. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9812, critical = 0.96. Kappa = 2.002 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limits

Prediction Limit

Intrawell Parametric



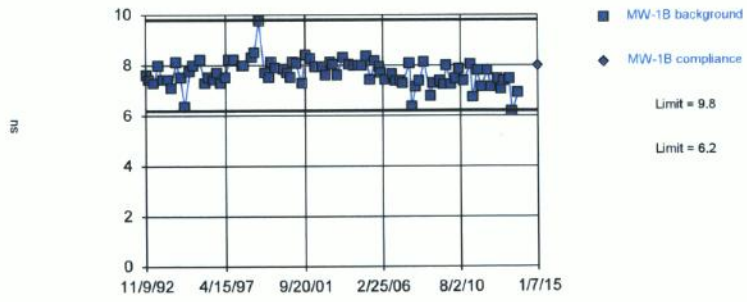
Background Data Summary (based on cube root transformation): Mean=1.92, Std. Dev.=0.03908, n=84. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9748, critical = 0.96. Kappa = 2.002 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 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 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limits

Prediction Limit

Intrawell Non-parametric



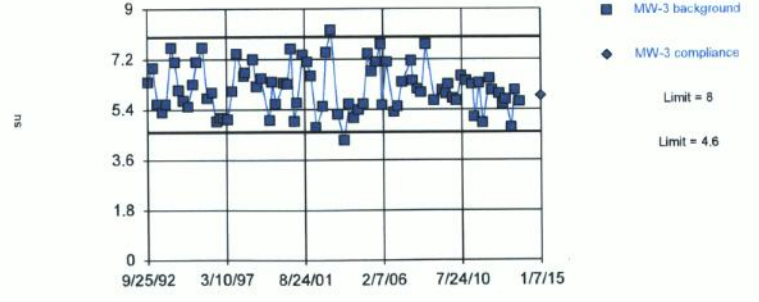
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 85 background values. Well-constituent pair annual alpha = 0.002155. Individual comparison alpha = 0.0005389 (1 of 2). Distribution was found to be non-normal after removal of suspect values, so outliers could not be indentified. Seasonality was not detected with 95% confidence.

Constituent: pH [Field] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limits

Prediction Limit

Intrawell Parametric



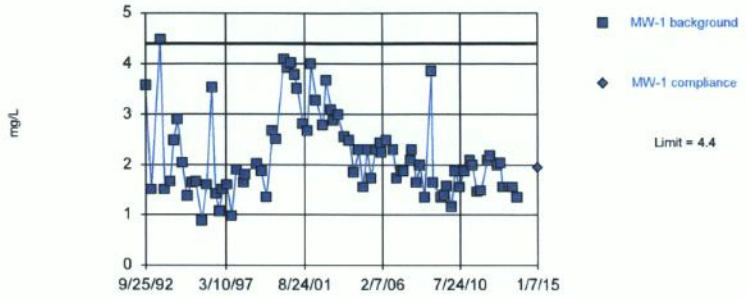
Background Data Summary (based on natural log transformation): Mean=1.806, Std. Dev.=0.138, n=81. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9896, critical = 0.958. Kappa = 2.005 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.703, Std. Dev.=0.3848, n=82. Seasonality was detected with 95% confidence and data were deseasonalized. 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 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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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. Seasonality was not detected with 95% confidence.

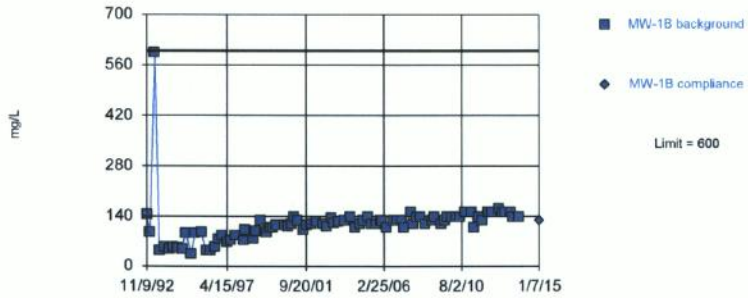
Constituent: Sodium Total Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

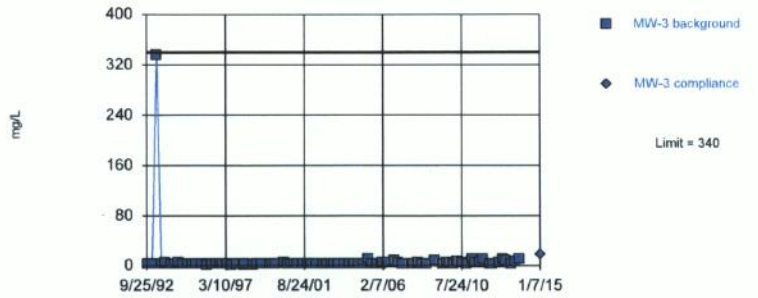
Constituent: Sodium Total Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Within Limit

Prediction Limit

Intrawell Non-parametric



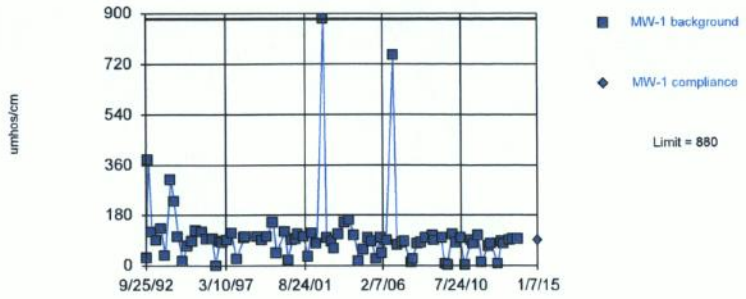
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Sodium Total Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Non-parametric



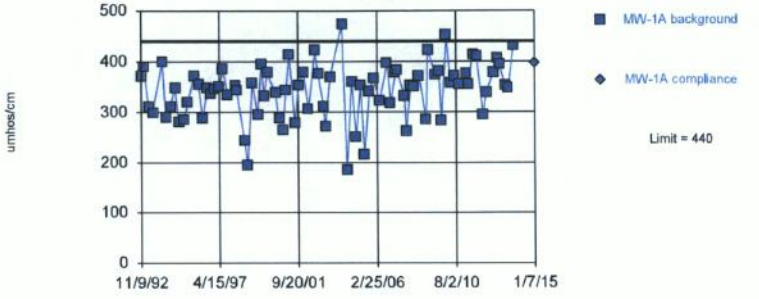
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2).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

Constituent: Specific Conductance [Field] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Parametric



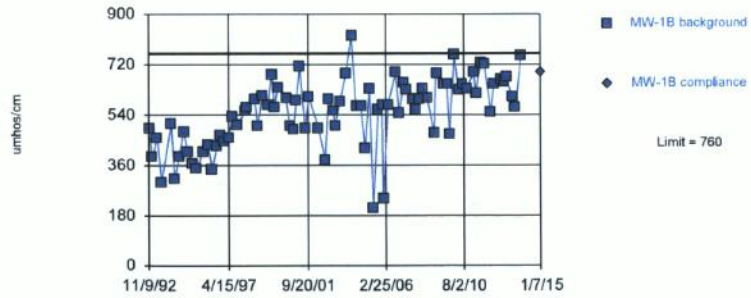
Background Data Summary (based on square transformation): Mean=120248, Std. Dev.=36097, n=82. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9855, critical = 0.959. Kappa = 2.004 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. 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 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Parametric



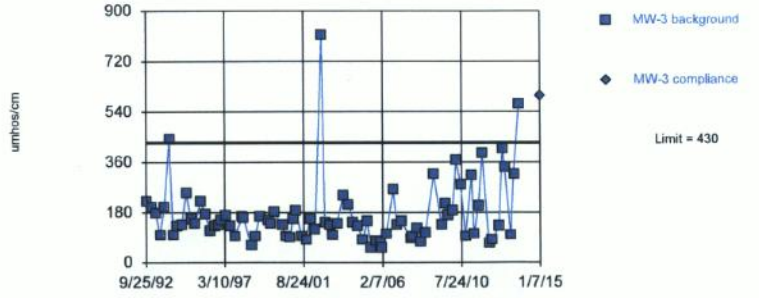
Background Data Summary (based on square transformation): Mean=318256, Std. Dev.=127304, n=83. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9926, critical = 0.96. Kappa = 2.003 (c=9, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0007314. 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 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=5.006, Std. Dev.=0.5279, n=82. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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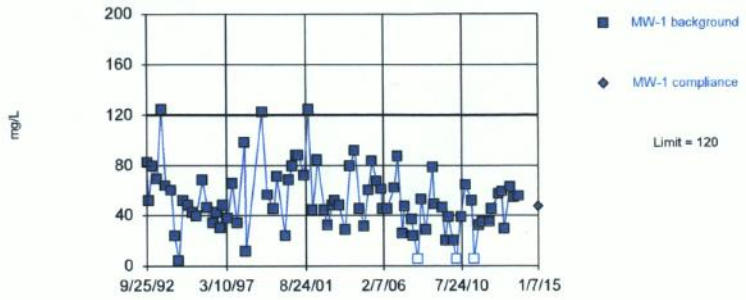
Hollow symbols indicate censored values.

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. Seasonality was not detected with 95% confidence. 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).

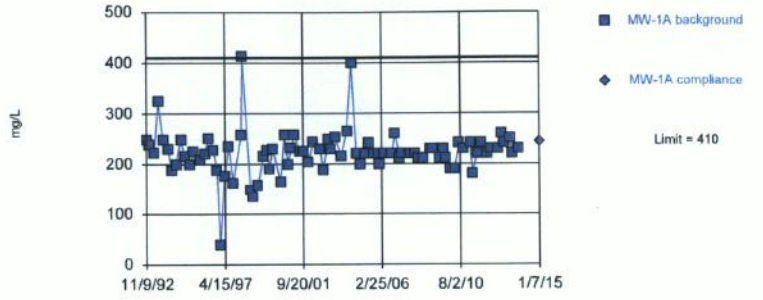
Constituent: Total Dissolved Solids [TDS] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

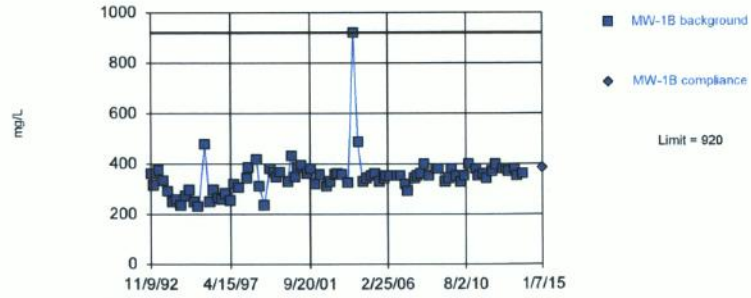
Constituent: Total Dissolved Solids [TDS] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

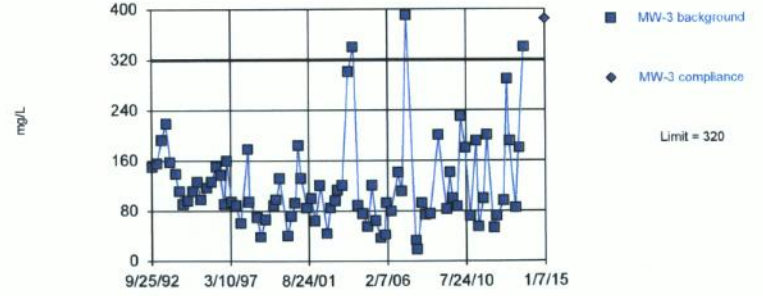
Constituent: Total Dissolved Solids [TDS] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=4.647, Std. Dev.=0.5563, n=82. Seasonality was not detected with 95% confidence. 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.

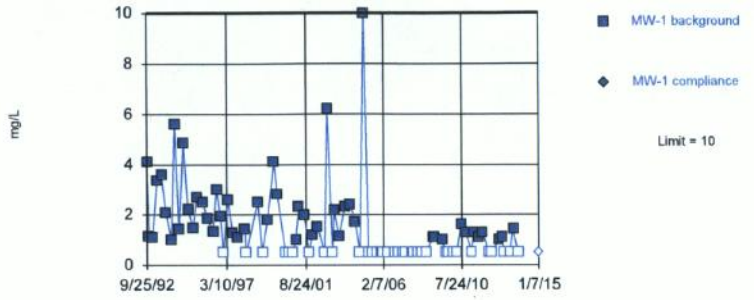
Constituent: Total Dissolved Solids [TDS] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

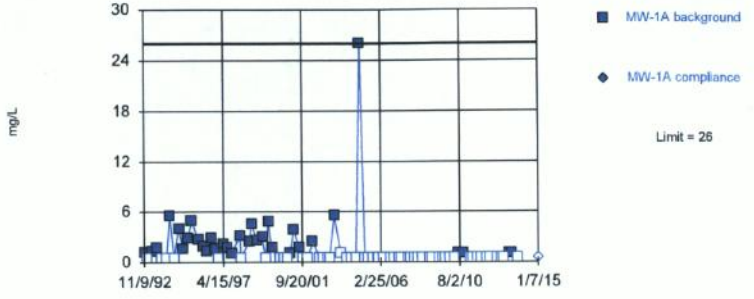
Constituent: Total Organic Carbon [TOC] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

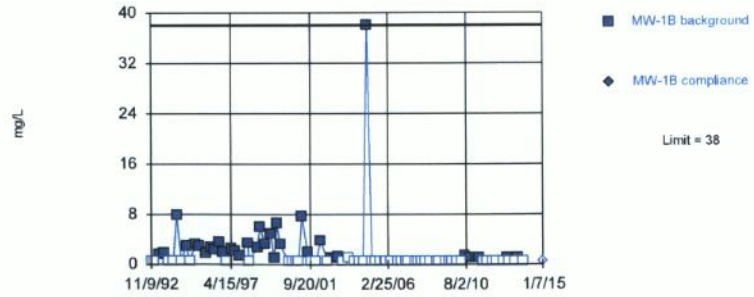
Constituent: Total Organic Carbon [TOC] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

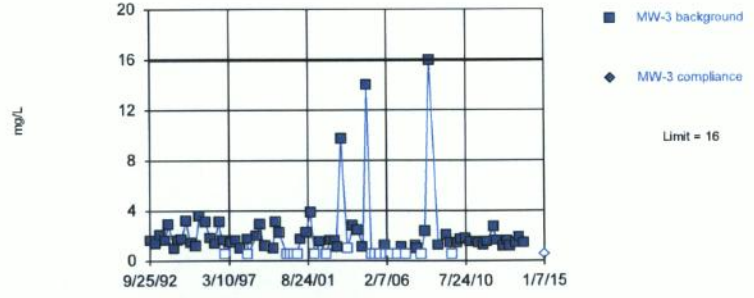
Constituent: Total Organic Carbon [TOC] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



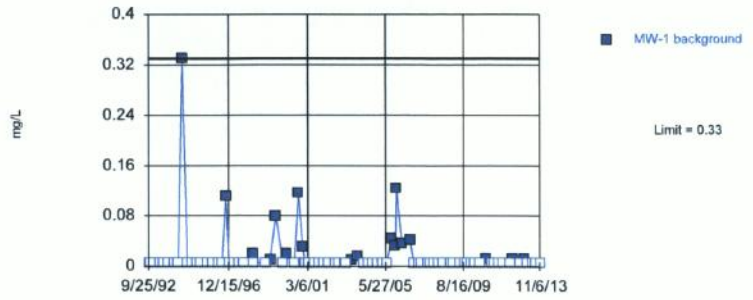
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 21.95% NDs. Well-constituent pair annual alpha = 0.001152. Individual comparison alpha = 0.000288 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Total Organic Carbon [TOC] Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, MW-1



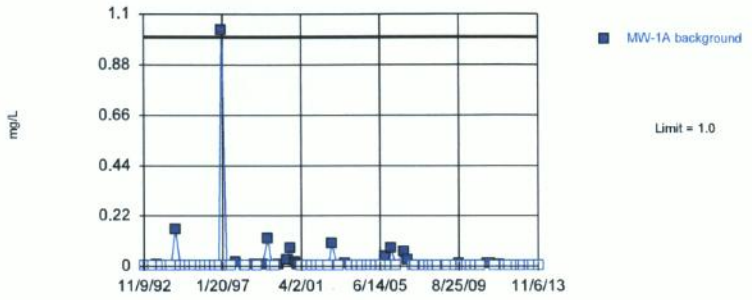
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 78.57% NDs. Well-constituent pair annual alpha = 0.001102. Individual comparison alpha = 0.0002756 (1 of 2). Assumes 1 future value. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Total Organic Halides Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, MW-1A



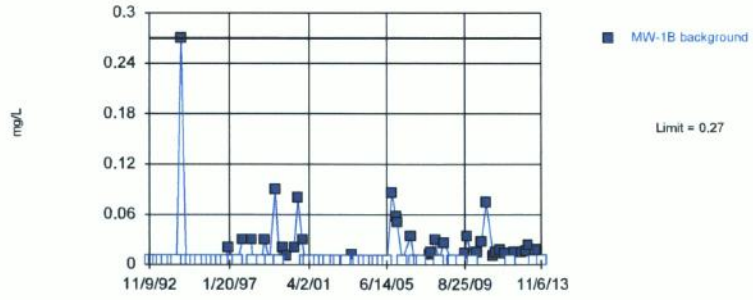
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 74.12% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). Assumes 1 future value. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Total Organic Halides Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, MW-1B



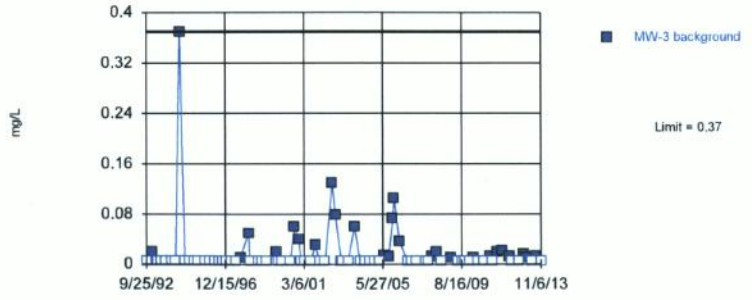
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 85 background values. 60% NDs. Well-constituent pair annual alpha = 0.001077. Individual comparison alpha = 0.0002694 (1 of 2). Assumes 1 future value. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Total Organic Halides Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, MW-3



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). Assumes 1 future value. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Total Organic Halides Analysis Run 1/28/2015 2:00 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

INTRA-WELL PREDICTION LIMITS
NEWER WELLS
QUARTERLY PARAMETERS

Prediction Limit

Facility: Green Valley Client: RSI Data File: GREENVALLEY Printed 1/28/2015, 2:19 PM

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	1/7/2015	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	1/7/2015	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	1/7/2015	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	1/7/2015	1.7	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**	**1/7/2015**	**26.4**	**Yes**	**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	1/7/2015	22.6	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**	**1/7/2015**	**2.2**	**Yes**	**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	1/7/2015	11.8	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	1/7/2015	4.8	No	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	1/7/2015	6.94	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	1/7/2015	5.86	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	1/7/2015	5.56	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	1/7/2015	12	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	1/7/2015	28.4	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	1/7/2015	17.2	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	1/7/2015	205	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	1/7/2015	602	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	1/7/2015	474	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	1/7/2015	177	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	1/7/2015	460	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	1/7/2015	364	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	1/7/2015	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	1/7/2015	0.5ND	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	1/7/2015	0.5ND	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	n/a	1 future	n/a	19	n/a	n/a	73.68	n/a	n/a	0.01882	NP Intra (NDs) 1 of 2
Total Organic Halides (mg/L)	MW-28D	0.034	n/a	n/a	1 future	n/a	19	n/a	n/a	36.84	n/a	n/a	0.01882	NP Intra (normality) 1 of 2
Total Organic Halides (mg/L)	MW-28C	0.055	n/a	n/a	1 future	n/a	19	0.2636	0.05244	10.53	None	x^(1/3)	0.0009751	Param Intra 1 of 2

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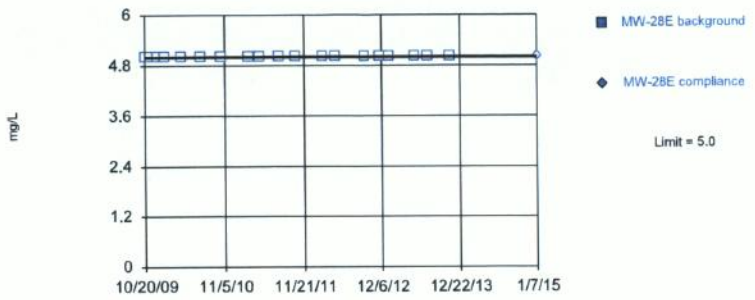
Hollow symbols indicate censored values.

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. Seasonality was not detected with 95% confidence.

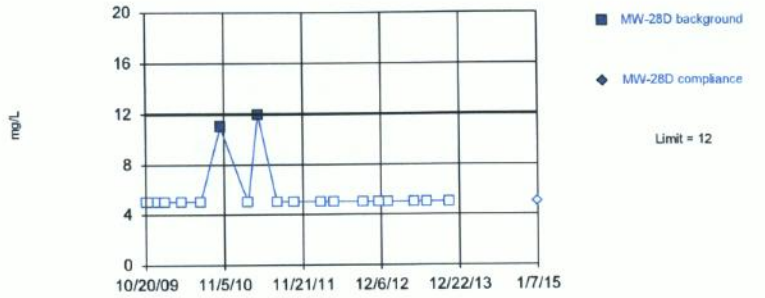
Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:17 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:17 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, 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. Seasonality was not detected with 95% confidence.

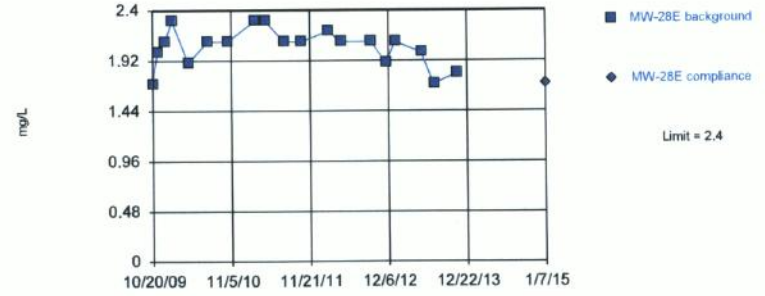
Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:17 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Within Limit

Prediction Limit

Intrawell Parametric



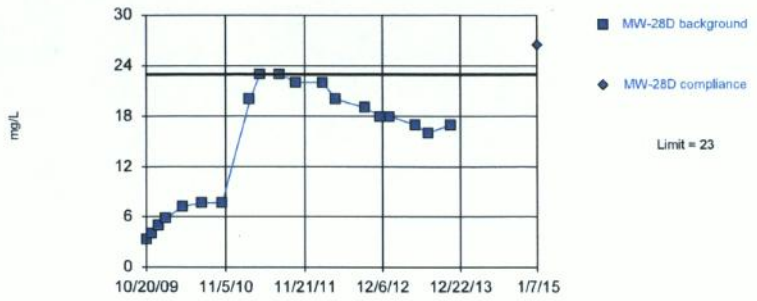
Background Data Summary (based on cube transformation): Mean=8.769, Std. Dev.=2.198, n=19. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9124, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chloride Analysis Run 1/28/2015 2:17 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

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. Seasonality was not detected with 95% confidence.

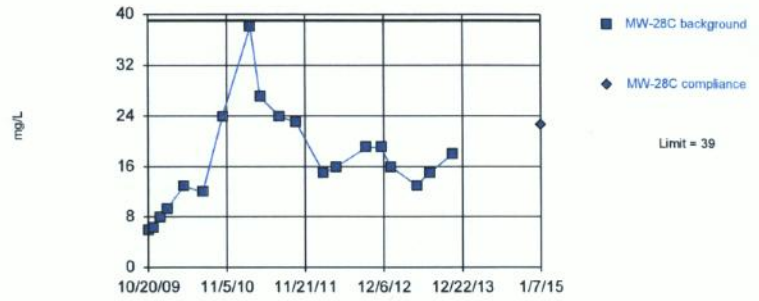
Constituent: Chloride Analysis Run 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=2.507, Std. Dev.=0.4018, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

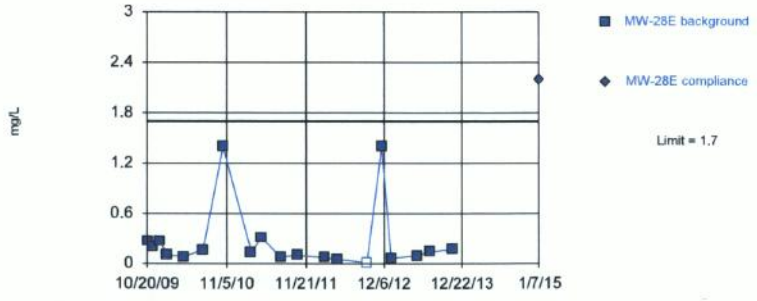
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Hollow symbols indicate censored values.

Exceeds 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. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Parametric

Background Data Summary (based on natural log transformation): Mean=0.9493, Std. Dev.=1.847, n=19. Seasonality was not detected with 95% confidence. 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.

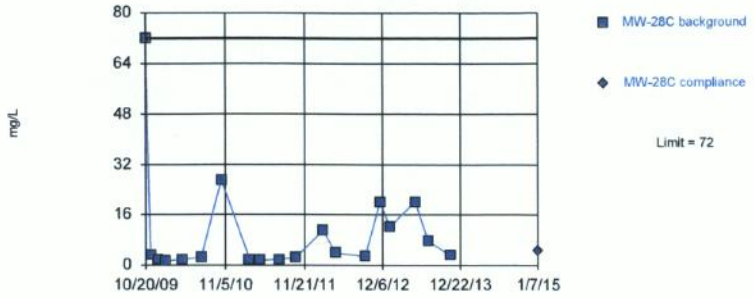
Constituent: Iron Total Analysis Run 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

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. Seasonality was not detected with 95% confidence.

Constituent: Iron Total Analysis Run 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limits

Prediction Limit

Intrawell Parametric

Background Data Summary (based on natural log transformation): Mean=1.866, Std. Dev.=0.03519, n=16. Seasonality was not detected with 95% confidence. 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).

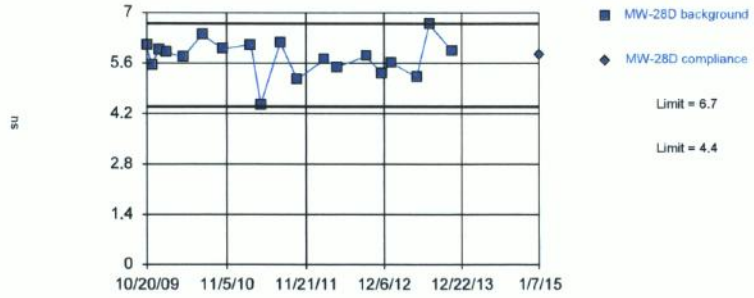
Constituent: pH [Field] Analysis Run 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=195.1, Std. Dev.=48.09, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limits

Prediction Limit

Intrawell Parametric

Background Data Summary (based on cube transformation): Mean=167.2, Std. Dev.=48.45, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit

Intrawell Parametric

Background Data Summary (based on square transformation): Mean=247.1, Std. Dev.=96.1, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

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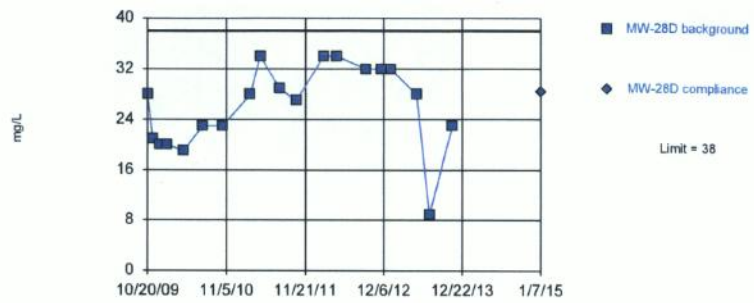
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=722.6, Std. Dev.=316.8, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

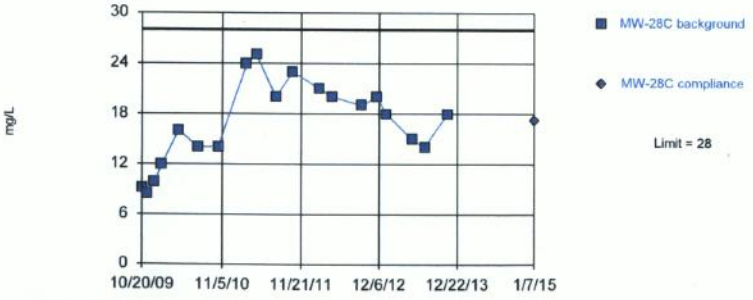
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.86, Std. Dev.=4.952, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

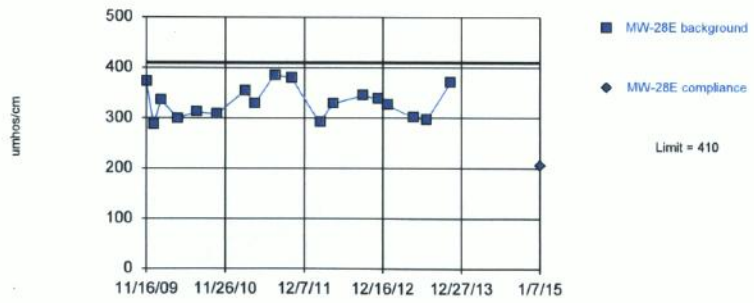
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=5.799, Std. Dev.=0.09481, n=18. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit
Intrawell Parametric

Background Data Summary (based on square transformation): Mean=334002, Std. Dev.=126564, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:17 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

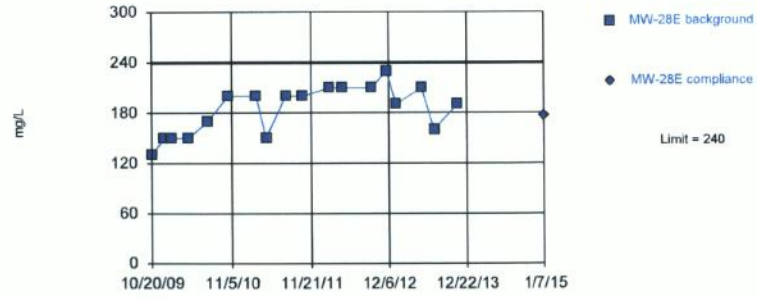
Prediction Limit
Intrawell Parametric

Background Data Summary: Mean=536.5, Std. Dev.=124.3, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:18 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit
Intrawell Parametric

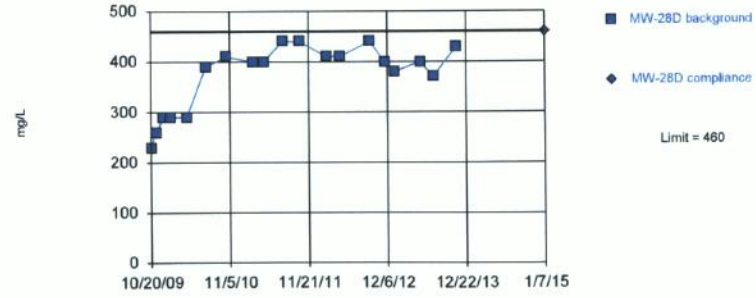


Background Data Summary (based on cube transformation): Mean=6646389, Std. Dev.=2842487, n=18. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.916, critical = 0.897. Kappa = 2.258 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. 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 1/28/2015 2:18 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on x^6 transformation): Mean=3.7e15, Std. Dev.=2.4e15, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:18 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Within Limit

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=360.5, Std. Dev.=71.53, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:18 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

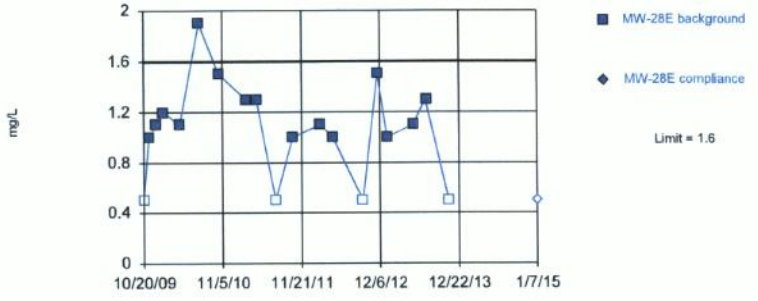
Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

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. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:18 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

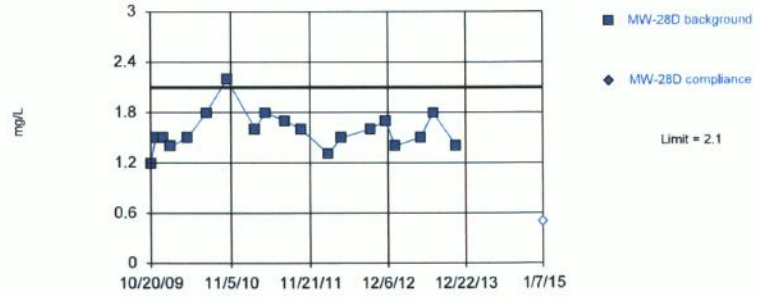
Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.4476, Std. Dev.=0.1376, n=19. Seasonality was not detected with 95% confidence. 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 1/28/2015 2:18 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric

Background Data Summary (based on natural log transformation): Mean=0.6108, Std. Dev.=0.1771, n=17. Insufficient data to test for seasonality: data were not deseasonalized. 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).

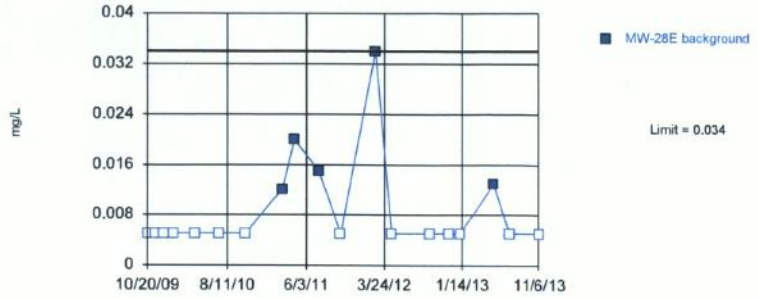
Constituent: Total Organic Carbon [TOC] Analysis Run 1/28/2015 2:18 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, MW-28E



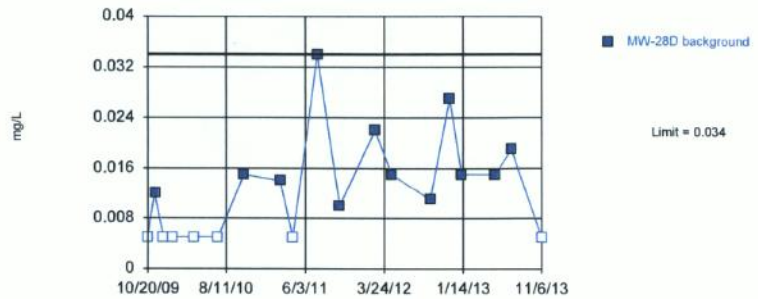
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 73.68% NDs. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). Assumes 1 future value. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Total Organic Halides Analysis Run 1/28/2015 2:18 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Non-parametric, MW-28D



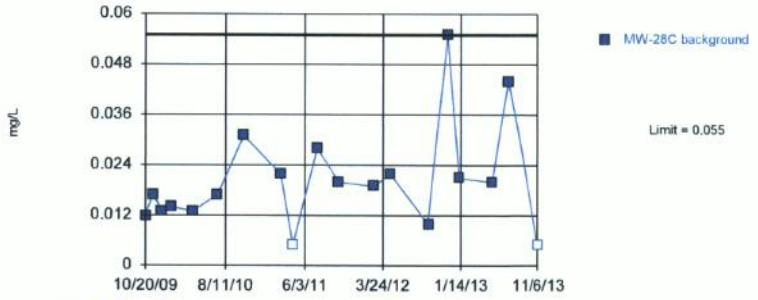
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.05 alpha level. Limit is highest of 19 background values. 36.84% NDs. Well-constituent pair annual alpha = 0.01882. Individual comparison alpha = 0.004738 (1 of 2). Assumes 1 future value. After outlier removal distribution was non-normal, so outlier results were invalidated. Seasonality was not detected with 95% confidence.

Constituent: Total Organic Halides Analysis Run 1/28/2015 2:18 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

Sanitas™ v.9.4.40 Sanitas software licensed to Jett Environmental Consulting, UG
Hollow symbols indicate censored values.

Prediction Limit

Intrawell Parametric, MW-28C



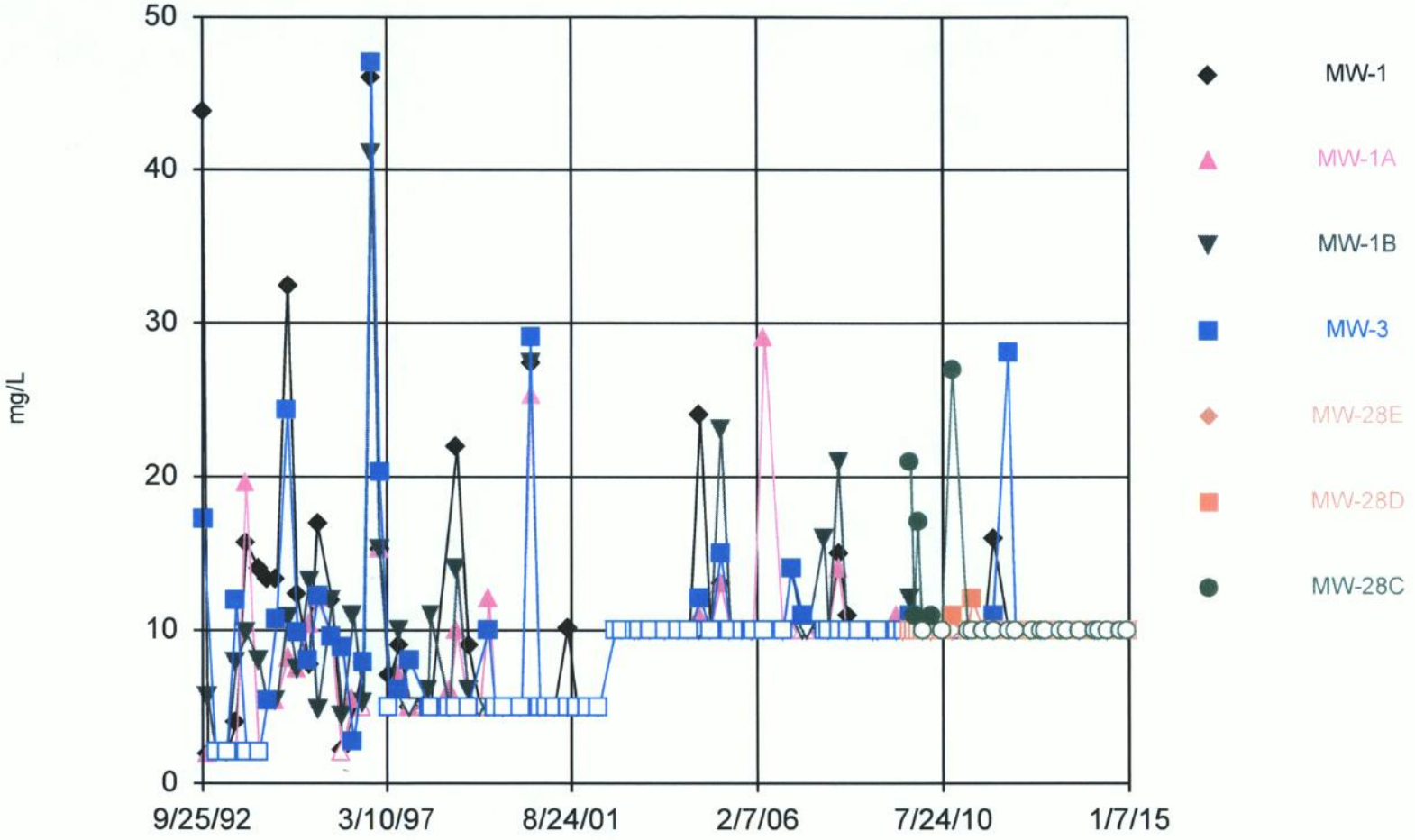
Background Data Summary (based on cube root transformation): Mean=0.2636, Std. Dev.=0.05244, n=19, 10.53% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9585, critical = 0.901. Kappa = 2.232 (c=9, w=3, 1 of 2, event alpha = 0.026). Report alpha = 0.0009751. Assumes 1 future value. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Organic Halides Analysis Run 1/28/2015 2:18 PM
Facility: Green Valley Client: RSI Data File: GREENVALLEY

TIME SERIES PLOTS & DATA

Hollow symbols indicate censored values.

Time Series

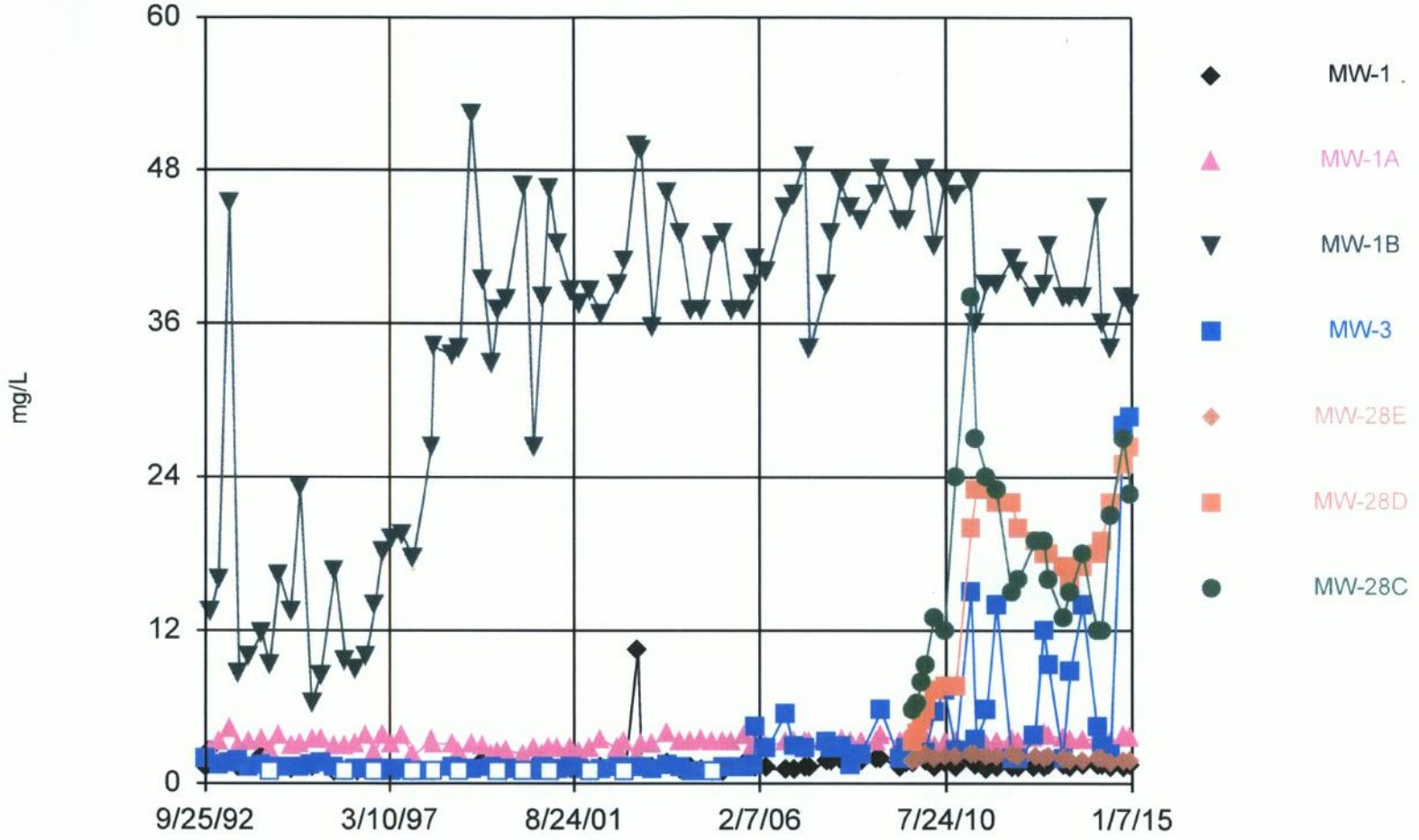


Constituent: Chemical Oxygen Demand [COD] Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Hollow symbols indicate censored values.

Time Series

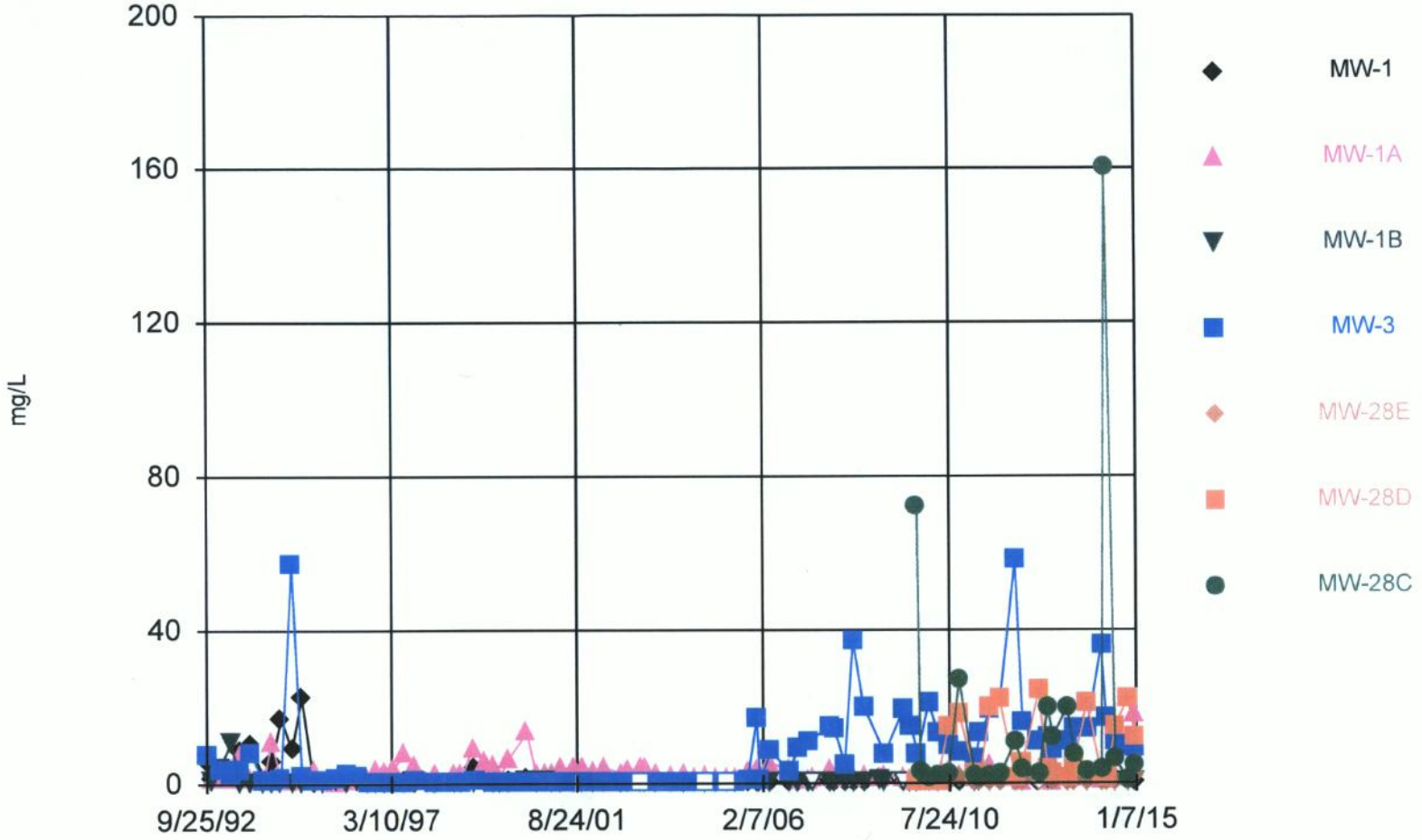


Constituent: Chloride Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Hollow symbols indicate censored values.

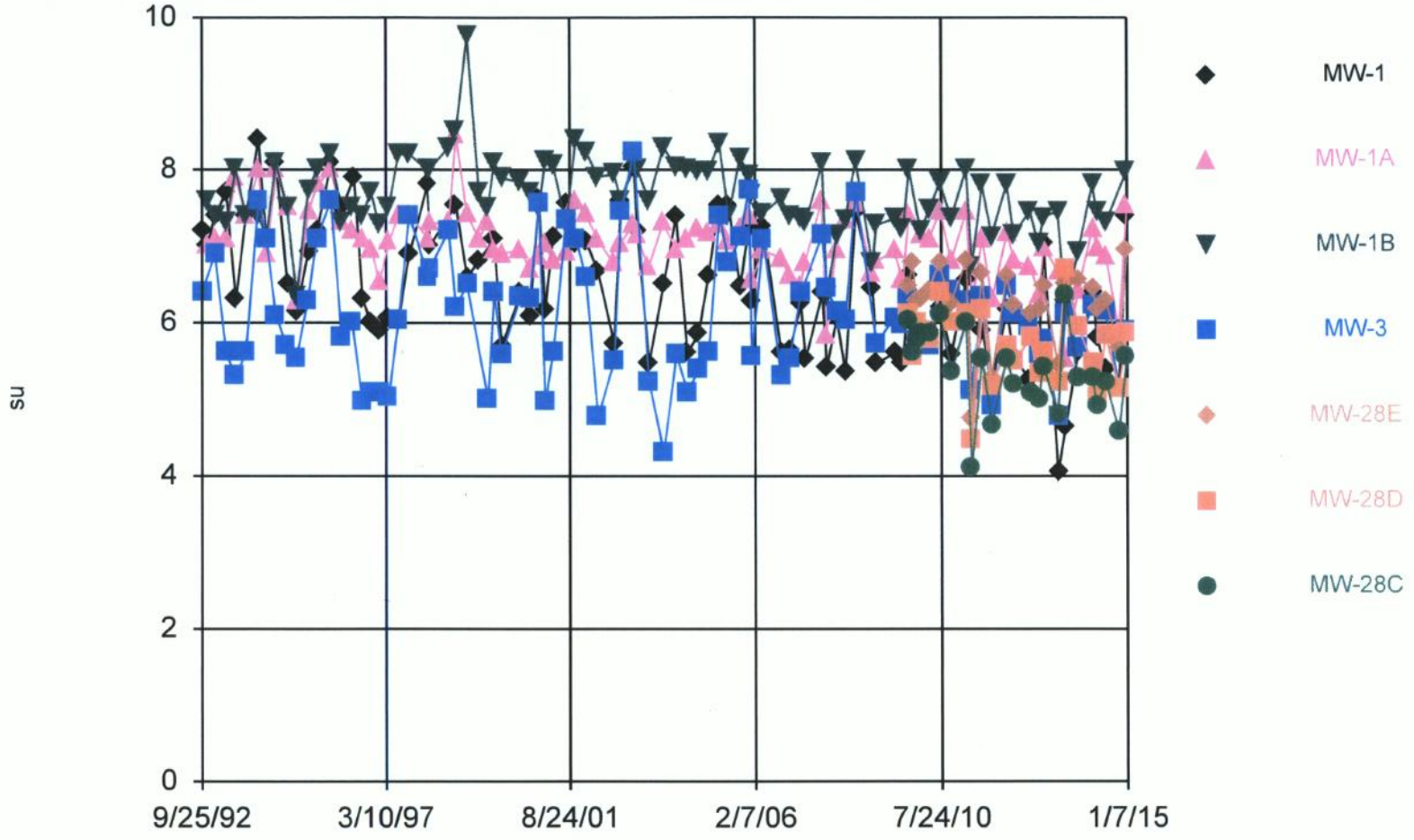
Time Series



Constituent: Iron Total Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

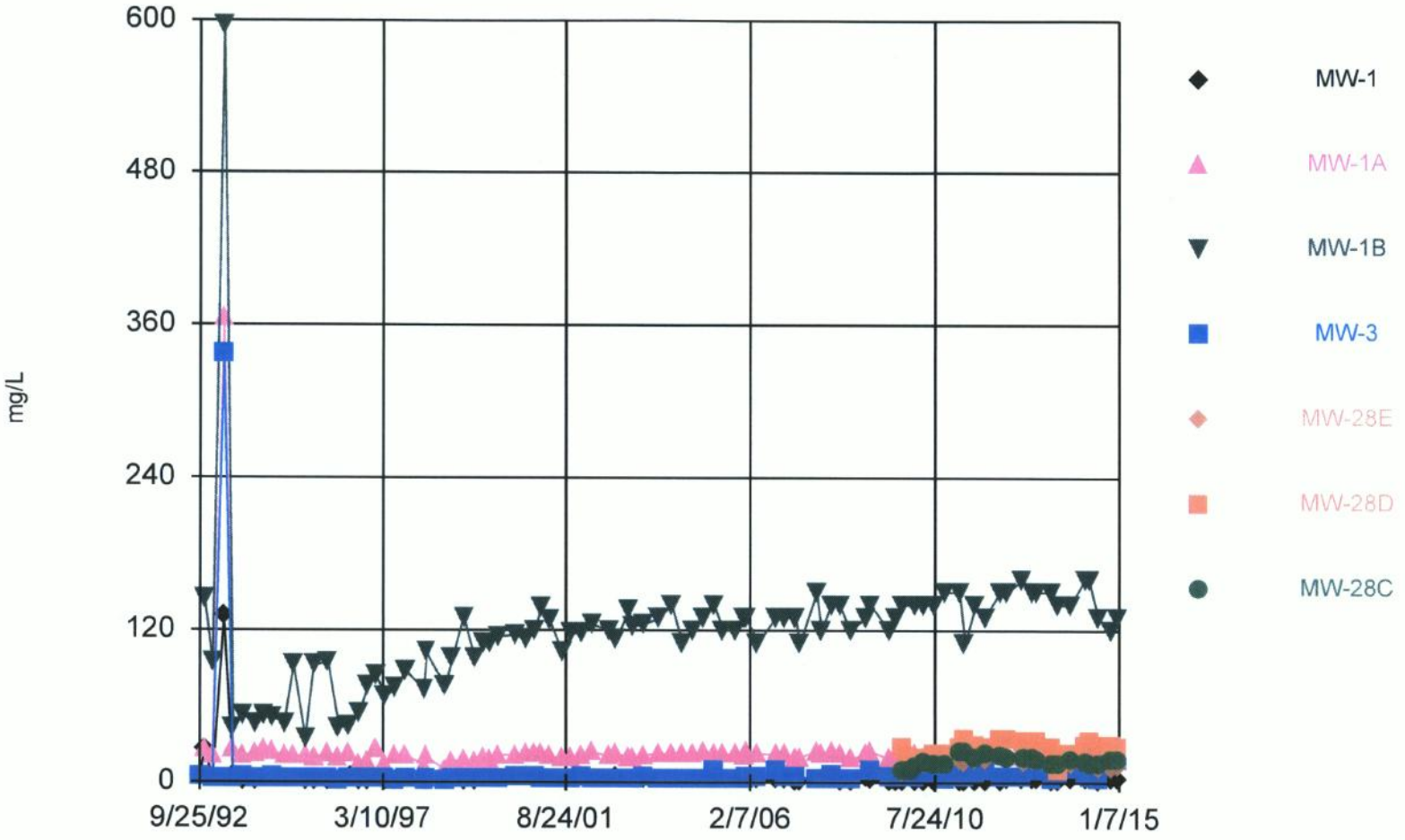
Time Series



Constituent: pH [Field] Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

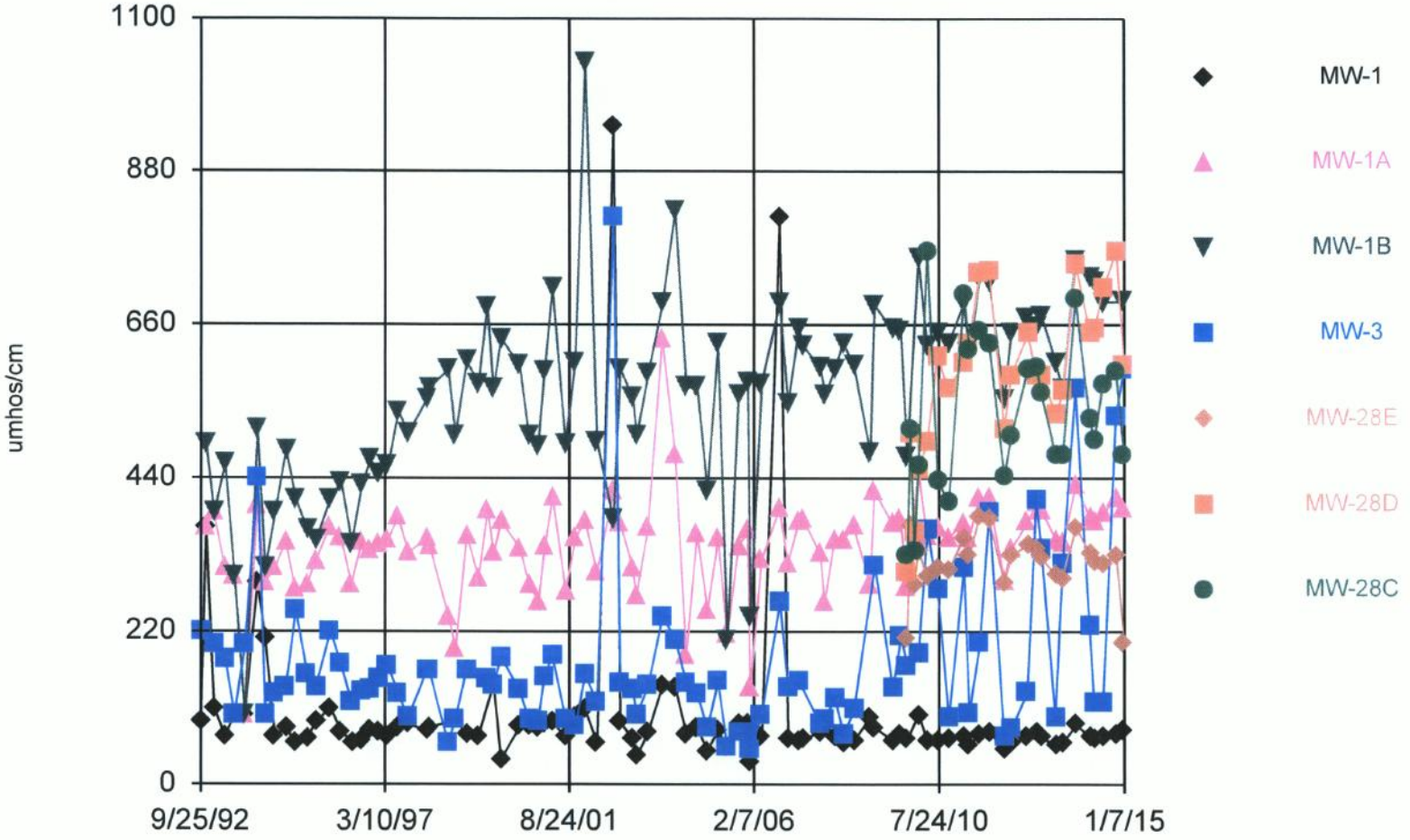
Time Series



Constituent: Sodium Total Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Time Series

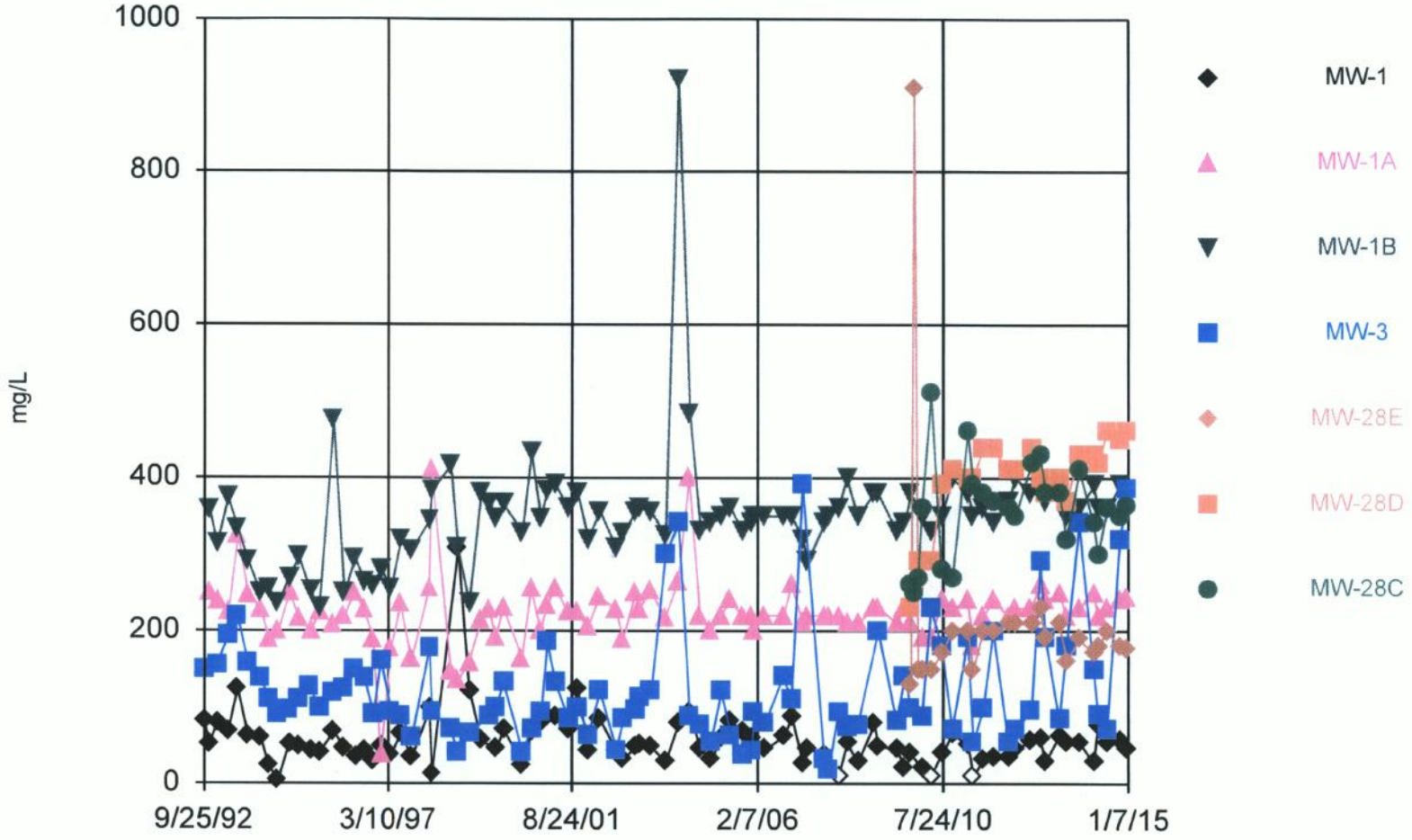


Constituent: Specific Conductance [Field] Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Hollow symbols indicate censored values.

Time Series

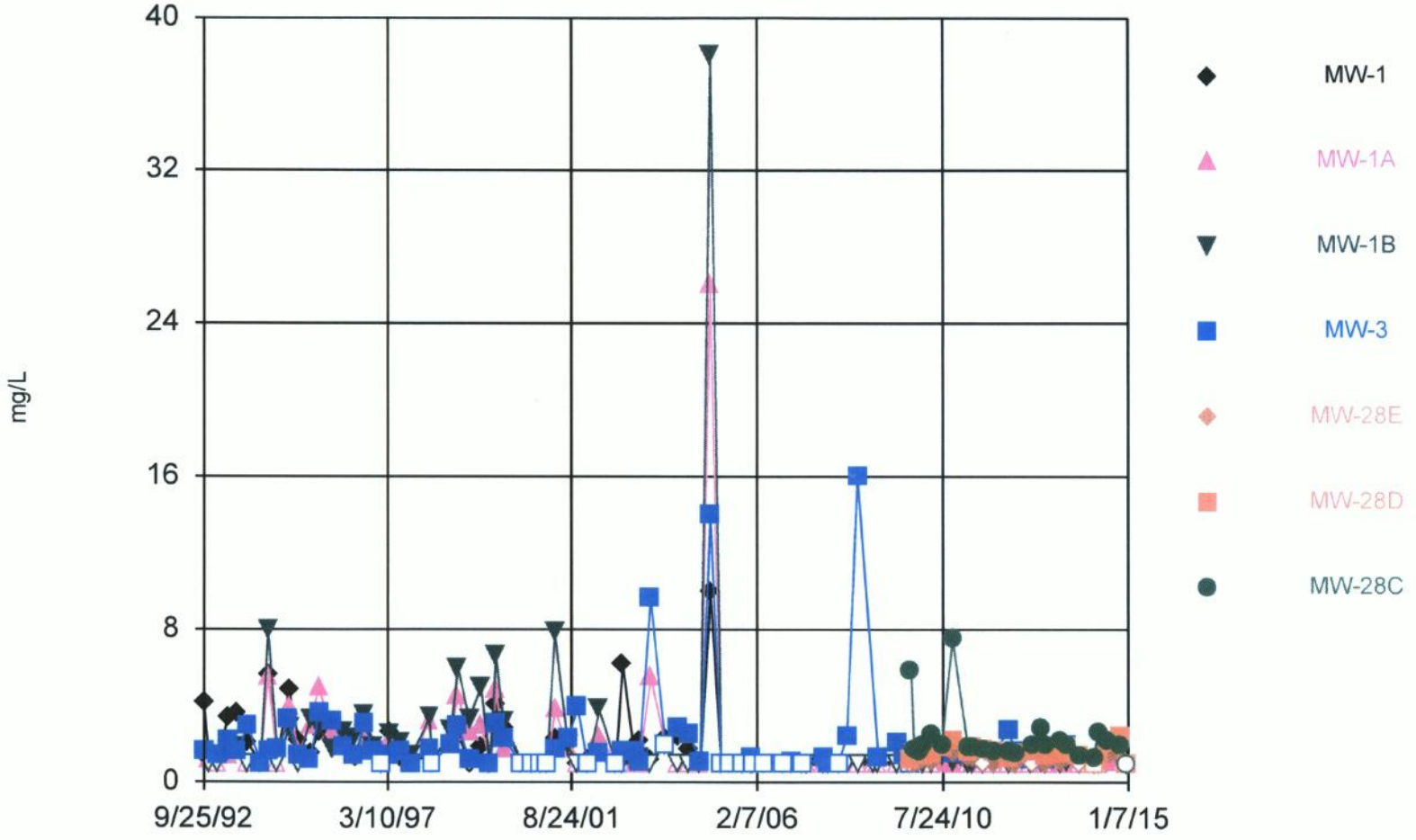


Constituent: Total Dissolved Solids [TDS] Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Hollow symbols indicate censored values.

Time Series



Constituent: Total Organic Carbon [TOC] Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

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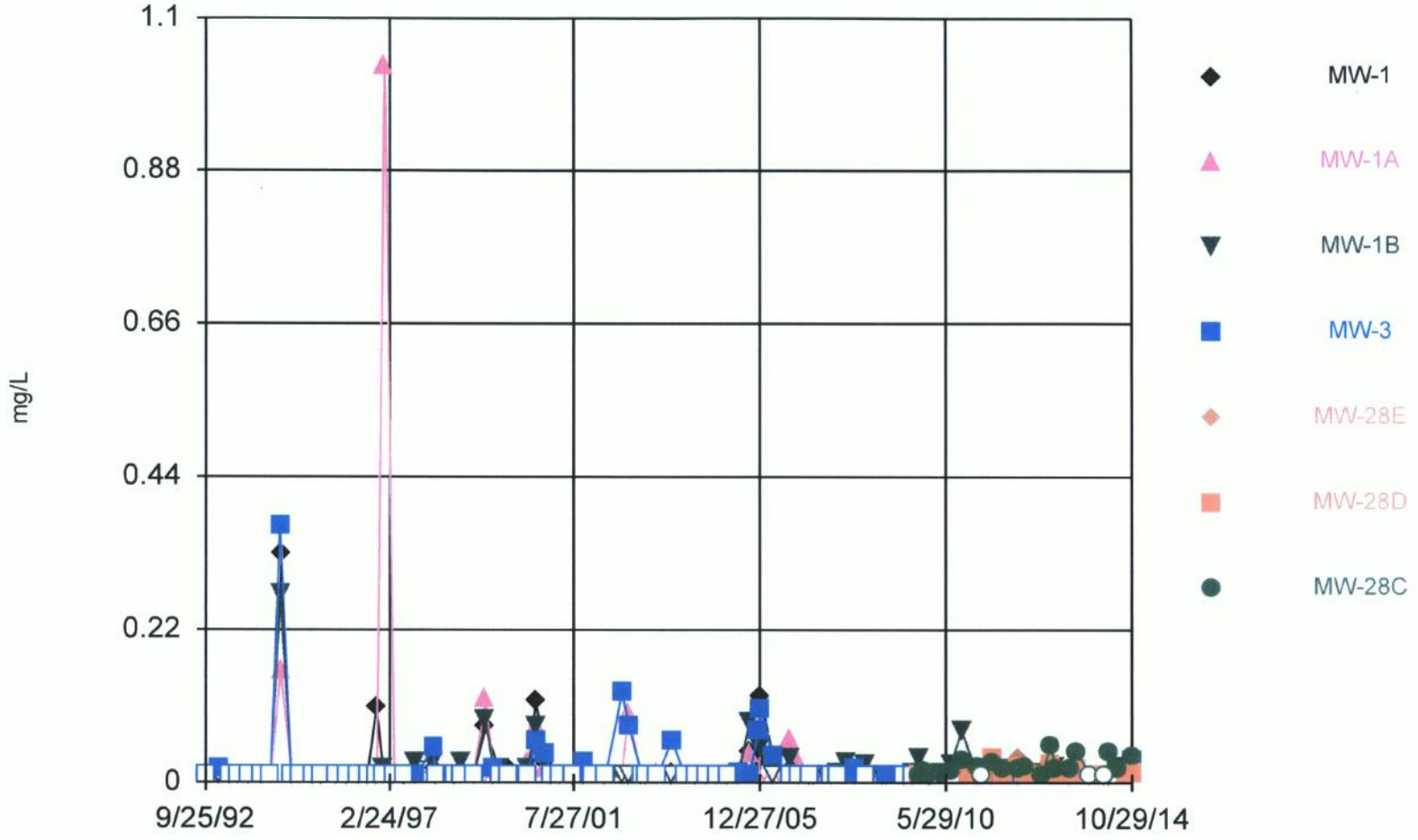
Hollow symbols indicate censored values.

Time Series



Constituent: Total Organic Halides Analysis Run 1/28/2015 2:21 PM

Facility: Green Valley Client: RSI Data File: GREENVALLEY

Time Series

Constituent: Chemical Oxygen Demand [COD] (mg/L) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
9/10/2012	<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
7/8/2014	<10	<10	<10	<10	<10	<10	<10
10/29/2014	<10	<10	<10	<10	<10	<10	<10
1/7/2015	<10	<10	<10	<10	<10	<10	<10

Time Series

Constituent: Chloride (mg/L) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	1.2	3.3	34	2.2	1.6	22	21
10/29/2014	1.3	3.7	38	28	1.7	25	27
1/7/2015	1.4	3.6	37.5	28.7	1.7	26.4	22.6

Time Series

Constituent: Iron Total (mg/L) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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				
6/5/1996	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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	0.13	1.9	0.028	11	0.09	15	6.2
10/29/2014	0.22	2	0.4	9.5	0.056	22	0.56
1/7/2015	0.55	18.1	0.44	9.3	2.2	11.8	4.8

Time Series

Constituent: pH [Field] (su) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	5.38	6.87	7.31	6.13	6.29	5.83	5.22
10/29/2014	5.16	5.88		5.15	5.66	5.14	4.57
1/7/2015	7.39	7.53	7.99	5.89	6.94	5.86	5.56

Time Series

Constituent: Sodium Total (mg/L) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley *Client: RSI* *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	365	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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	1.4	20	130	3.1	11	29	15
10/29/2014	1.7	23	120	15	11	30	18
1/7/2015	2.4	22.4	130	17.3	12	28.4	17.2

Time Series

Constituent: Specific Conductance [Field] (umhos/cm) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley *Client: RSI* *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			
12/16/2005	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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	70	391	692	117	316	713	575
10/29/2014	72	412		528	329	766	594
1/7/2015	79	397	693	595	205	602	474

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	53	230	360	70	200	460	360
10/29/2014	56	240	390	320	180	450	350
1/7/2015	47	244	383	385	177	460	364

Time Series

Constituent: Total Organic Carbon [TOC] (mg/L) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	1.3	1.1	1.4	1.8	1.4	2.1	2.2
10/29/2014	1.5	1.3	1.6	2.3	1.3	2.4	2
1/7/2015	<1	<1	<1	<1	<1	<1	<1

Time Series

Constituent: Total Organic Halides (mg/L) Analysis Run 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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 1/28/2015 2:23 PM

Facility: Green Valley Client: RSI 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
7/8/2014	<0.01	<0.01	0.022	<0.01	<0.01	0.011	0.021
10/29/2014	<0.01	0.015	0.026	0.032	<0.01	0.013	0.039

APPENDIX C

LABORATORY ANALYTICAL REPORT
&
FIELD INFORMATION LOGS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

January 22, 2015

Environmental Manager
Republic Services, Inc. - Green Valley Landfill
100 Addington Road
Ashland, KY 41102

RE: Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Dear Environmental Manager:
Enclosed are the analytical results for sample(s) received by the laboratory on January 08, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chris Boyle
chris.boyle@pacelabs.com
Project Manager

Enclosures

cc: Mr. Steve Jett, Jett Environmental Consulting

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CERTIFICATIONS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Indiana Certification IDs
7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky UST Certification #: 0042
Louisiana/NELAP Certification #: 04076
Ohio VAP Certification #: CL-0065
West Virginia Certification #: 330

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50110352001	MW-1	Water	01/07/15 09:40	01/08/15 09:40
50110352002	MW-1A	Water	01/07/15 10:10	01/08/15 09:40
50110352003	MW-1B	Water	01/07/15 10:50	01/08/15 09:40
50110352004	MW-3	Water	01/07/15 11:40	01/08/15 09:40
50110352005	MW-28D	Water	01/07/15 12:50	01/08/15 09:40
50110352006	MW-28E	Water	01/07/15 13:15	01/08/15 09:40
50110352007	MW-28C	Water	01/07/15 14:42	01/08/15 09:40
50110352008	FB	Water	01/07/15 10:35	01/08/15 09:40
50110352009	DUP	Water	01/07/15 08:00	01/08/15 09:40

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SAMPLE ANALYTE COUNT

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Lab ID	Sample ID	Method	Analysts	Analytes Reported
50110352001	MW-1	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352002	MW-1A	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352003	MW-1B	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352004	MW-3	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352005	MW-28D	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352006	MW-28E	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352007	MW-28C	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352008	FB	EPA 9056	RID	1
		EPA 6010	LLB	2

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SAMPLE ANALYTE COUNT

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1
50110352009	**DUP**	EPA 9056	RID	1
		EPA 6010	LLB	2
		SM 2540C	JRB	1
		HACH 8000	TPD	1
		SM 5310C	TAD	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Sample: MW-1 **Lab ID: 50110352001** Collected: 01/07/15 09:40 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**7.39**	Std. Units		1		01/15/15 09:57		
Field Temperature	**8.79**	deg C		1		01/15/15 09:57		
Field Specific Conductance	**79**	umhos/cm		1		01/15/15 09:57		
Oxygen, Dissolved	**8.08**	mg/L		1		01/15/15 09:57	7782-44-7	
REDOX	**-57.7**	mV		1		01/15/15 09:57		
Field Turbidity	**61.1**	NTU		1		01/15/15 09:57		
Total Well Depth	**14.80**	feet		1		01/15/15 09:57		
Elevation Water Level	**613.29**	feet		1		01/15/15 09:57		
Collar Elevation	**617.80**	feet		1		01/15/15 09:57		
Depth to Water	**4.51**	feet		1		01/15/15 09:57		
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**1.4**	mg/L	0.25	1		01/09/15 15:10	16887-00-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**0.55**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:15	7439-89-6	
Sodium	**2.4**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:15	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**47**	mg/L	10.0	1		01/09/15 09:14		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/09/15 17:35	7440-44-0	

Sample: MW-1A **Lab ID: 50110352002** Collected: 01/07/15 10:10 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**7.53**	Std. Units		1		01/15/15 09:57		
Field Temperature	**11.06**	deg C		1		01/15/15 09:57		
Field Specific Conductance	**397**	umhos/cm		1		01/15/15 09:57		
Oxygen, Dissolved	**5.46**	mg/L		1		01/15/15 09:57	7782-44-7	
REDOX	**-69.7**	mV		1		01/15/15 09:57		
Field Turbidity	**77.9**	NTU		1		01/15/15 09:57		
Total Well Depth	**41.00**	feet		1		01/15/15 09:57		
Elevation Water Level	**616.70**	feet		1		01/15/15 09:57		
Collar Elevation	**618.60**	feet		1		01/15/15 09:57		
Depth to Water	**1.90**	feet		1		01/15/15 09:57		
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**3.6**	mg/L	0.25	1		01/09/15 15:44	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Sample: MW-1A **Lab ID: 50110352002** Collected: 01/07/15 10:10 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**18.1**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:29	7439-89-6	
Sodium	**22.4**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:29	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**244**	mg/L	10.0	1		01/09/15 09:14		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/09/15 17:35	7440-44-0	

Sample: MW-1B **Lab ID: 50110352003** Collected: 01/07/15 10:50 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**7.99**	Std. Units		1		01/15/15 09:57		
Field Temperature	**11.28**	deg C		1		01/15/15 09:57		
Field Specific Conductance	**693**	umhos/cm		1		01/15/15 09:57		
Oxygen, Dissolved	**0.81**	mg/L		1		01/15/15 09:57	7782-44-7	
REDOX	**-95.1**	mV		1		01/15/15 09:57		
Field Turbidity	**9.9**	NTU		1		01/15/15 09:57		
Total Well Depth	**61.00**	feet		1		01/15/15 09:57		
Elevation Water Level	**612.67**	feet		1		01/15/15 09:57		
Collar Elevation	**618.70**	feet		1		01/15/15 09:57		
Depth to Water	**6.03**	feet		1		01/15/15 09:57		
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**37.5**	mg/L	2.5	10		01/09/15 16:39	16887-00-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**0.44**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:32	7439-89-6	
Sodium	**130**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:32	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**383**	mg/L	10.0	1		01/09/15 09:15		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/09/15 17:35	7440-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Sample: MW-3 **Lab ID: 50110352004** Collected: 01/07/15 11:40 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**5.89**	Std. Units		1		01/15/15 09:57		
Field Temperature	**10.38**	deg C		1		01/15/15 09:57		
Field Specific Conductance	**595**	umhos/cm		1		01/15/15 09:57		
Oxygen, Dissolved	**6.11**	mg/L		1		01/15/15 09:57	7782-44-7	
REDOX	**10.6**	mV		1		01/15/15 09:57		
Field Turbidity	**31.1**	NTU		1		01/15/15 09:57		
Total Well Depth	**14.10**	feet		1		01/15/15 09:57		
Elevation Water Level	**624.70**	feet		1		01/15/15 09:57		
Collar Elevation	**630.80**	feet		1		01/15/15 09:57		
Depth to Water	**6.10**	feet		1		01/15/15 09:57		
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**28.7**	mg/L	2.5	10		01/09/15 18:16	16887-00-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**9.3**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:35	7439-89-6	
Sodium	**17.3**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:35	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**385**	mg/L	10.0	1		01/09/15 09:15		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/09/15 17:35	7440-44-0	

Sample: MW-28D **Lab ID: 50110352005** Collected: 01/07/15 12:50 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**5.86**	Std. Units		1		01/15/15 09:57		
Field Temperature	**8.22**	deg C		1		01/15/15 09:57		
Field Specific Conductance	**602**	umhos/cm		1		01/15/15 09:57		
Oxygen, Dissolved	**4.84**	mg/L		1		01/15/15 09:57	7782-44-7	
REDOX	**11.8**	mV		1		01/15/15 09:57		
Field Turbidity	**76.8**	NTU		1		01/15/15 09:57		
Total Well Depth	**16.30**	feet		1		01/15/15 09:57		
Elevation Water Level	**670.33**	feet		1		01/15/15 09:57		
Collar Elevation	**675.20**	feet		1		01/15/15 09:57		
Depth to Water	**4.87**	feet		1		01/15/15 09:57		
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**26.4**	mg/L	2.5	10		01/09/15 18:55	16887-00-6	

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ANALYTICAL RESULTS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Sample: MW-28D **Lab ID: 50110352005** Collected: 01/07/15 12:50 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**11.8**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:38	7439-89-6	
Sodium	**28.4**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:38	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**460**	mg/L	10.0	1		01/09/15 09:16		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/12/15 23:59	7440-44-0	

Sample: MW-28E **Lab ID: 50110352006** Collected: 01/07/15 13:15 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**6.94**	Std. Units		1		01/15/15 09:57		
Field Temperature	**9.31**	deg C		1		01/15/15 09:57		
Field Specific Conductance	**205**	umhos/cm		1		01/15/15 09:57		
Oxygen, Dissolved	**5.40**	mg/L		1		01/15/15 09:57	7782-44-7	
REDOX	**-40.9**	mV		1		01/15/15 09:57		
Field Turbidity	**15.3**	NTU		1		01/15/15 09:57		
Total Well Depth	**27.30**	feet		1		01/15/15 09:57		
Elevation Water Level	**667.63**	feet		1		01/15/15 09:57		
Collar Elevation	**677.00**	feet		1		01/15/15 09:57		
Depth to Water	**9.37**	feet		1		01/15/15 09:57		
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**1.7**	mg/L	0.25	1		01/09/15 19:14	16887-00-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**2.2**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:40	7439-89-6	
Sodium	**12.0**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:40	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**177**	mg/L	10.0	1		01/09/15 09:16		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/12/15 20:36	7440-44-0	

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ANALYTICAL RESULTS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Sample: MW-28C **Lab ID: 50110352007** Collected: 01/07/15 14:42 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Field pH	**5.56**	Std. Units		1		01/15/15 09:57		
Field Temperature	**6.54**	deg C		1		01/15/15 09:57		
Field Specific Conductance	**474**	umhos/cm		1		01/15/15 09:57		
Oxygen, Dissolved	**2.08**	mg/L		1		01/15/15 09:57	7782-44-7	
REDOX	**26.1**	mV		1		01/15/15 09:57		
Field Turbidity	**34.5**	NTU		1		01/15/15 09:57		
Total Well Depth	**12.90**	feet		1		01/15/15 09:57		
Elevation Water Level	**670.45**	feet		1		01/15/15 09:57		
Collar Elevation	**674.40**	feet		1		01/15/15 09:57		
Depth to Water	**3.95**	feet		1		01/15/15 09:57		
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**22.6**	mg/L	2.5	10		01/09/15 20:12	16887-00-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**4.8**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:43	7439-89-6	
Sodium	**17.2**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:43	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**364**	mg/L	10.0	1		01/09/15 09:18		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/12/15 20:36	7440-44-0	

Sample: FB **Lab ID: 50110352008** Collected: 01/07/15 10:35 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	ND	mg/L	0.25	1		01/09/15 17:37	16887-00-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	ND	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:46	7439-89-6	
Sodium	ND	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:46	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	10.0	1		01/09/15 09:18		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:12		

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ANALYTICAL RESULTS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Sample: FB **Lab ID: 50110352008** Collected: 01/07/15 10:35 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/12/15 20:36	7440-44-0	

Sample: DUP **Lab ID: 50110352009** Collected: 01/07/15 08:00 Received: 01/08/15 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 IC Anions	Analytical Method: EPA 9056							
Chloride	**3.5**	mg/L	0.25	1		01/09/15 21:07	16887-00-6	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	**12.1**	mg/L	0.020	1	01/13/15 14:46	01/14/15 16:49	7439-89-6	
Sodium	**22.5**	mg/L	0.10	1	01/13/15 14:46	01/14/15 16:49	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C							
Total Dissolved Solids	**233**	mg/L	10.0	1		01/09/15 09:19		
HACH 8000 COD	Analytical Method: HACH 8000 Preparation Method: HACH 8000							
Chemical Oxygen Demand	ND	mg/L	10.0	1	01/09/15 08:38	01/09/15 12:13		
5310C TOC	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		01/12/15 20:36	7440-44-0	

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QUALITY CONTROL DATA

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

QC Batch: GCSV/13985 Analysis Method: EPA 9056
QC Batch Method: EPA 9056 Analysis Description: 9056 IC Anions
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

METHOD BLANK: 1219360 Matrix: Water
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	01/08/15 19:40	

LABORATORY CONTROL SAMPLE: 1219361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.2	1.1	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1219611 1219612

Parameter	Units	50110349003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.0	12.5	12.5	13.7	13.9	78	79	80-120	1	15	M0

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QUALITY CONTROL DATA

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

QC Batch: MPRP/15079 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

METHOD BLANK: 1221311 Matrix: Water
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	mg/L	ND	0.020	01/14/15 16:52	
Sodium	mg/L	ND	0.10	01/14/15 16:52	

LABORATORY CONTROL SAMPLE: 1221312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	10	10.5	105	80-120	
Sodium	mg/L	10	10.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1221313 1221314

Parameter	Units	50110352001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	0.55	10	10	10.9	11.1	103	105	75-125	2	20	
Sodium	mg/L	2.4	10	10	12.3	12.4	99	100	75-125	1	20	

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QUALITY CONTROL DATA

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

QC Batch: WET/19286 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

METHOD BLANK: 1219577 Matrix: Water
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	01/09/15 09:12	

LABORATORY CONTROL SAMPLE: 1219578

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	294	98	80-120	

SAMPLE DUPLICATE: 1219579

Parameter	Units	50110349001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	437	424	3	10	

SAMPLE DUPLICATE: 1219580

Parameter	Units	50110376001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	7230	7440	3	10	

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QUALITY CONTROL DATA

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

QC Batch: WET/19285 Analysis Method: HACH 8000
QC Batch Method: HACH 8000 Analysis Description: HACH 8000 COD
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

METHOD BLANK: 1219572 Matrix: Water
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004, 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	10.0	01/09/15 12:11	

LABORATORY CONTROL SAMPLE: 1219573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	100	109	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1219574 1219575

Parameter	Units	50110349001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	ND	100	100	109	108	108	107	90-110	1	20	

MATRIX SPIKE SAMPLE: 1219576

Parameter	Units	50110352001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	ND	100	111	109	90-110	

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QUALITY CONTROL DATA

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

QC Batch: WETA/14286 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004

METHOD BLANK: 1219615 Matrix: Water
Associated Lab Samples: 50110352001, 50110352002, 50110352003, 50110352004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	01/09/15 17:35	

LABORATORY CONTROL SAMPLE: 1219616

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1219617 1219618

Parameter	Units	50110332001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	11.4	11.3	113	112	80-120	1	20	

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QUALITY CONTROL DATA

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

QC Batch: WETA/14308 Analysis Method: SM 5310C
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

METHOD BLANK: 1220919 Matrix: Water
Associated Lab Samples: 50110352005, 50110352006, 50110352007, 50110352008, 50110352009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	01/12/15 23:59	

LABORATORY CONTROL SAMPLE: 1220920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1220921 1220922

Parameter	Units	50110352005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Total Organic Carbon	mg/L	ND	10	10	11.4	11.8	112	116	80-120	3	20	

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QUALIFIERS

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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www.pacelabs.com

Pace Analytical Services, Inc.
Not NELAP Accredited
4860 Blazer Parkway
Dublin, OH 43017
(614)486-5421

Pace Analytical Services, Inc.
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50110352001	MW-1		FLD/1490		
50110352002	MW-1A		FLD/1490		
50110352003	MW-1B		FLD/1490		
50110352004	MW-3		FLD/1490		
50110352005	MW-28D		FLD/1490		
50110352006	MW-28E		FLD/1490		
50110352007	MW-28C		FLD/1490		
50110352001	MW-1	EPA 9056	GCSV/13985		
50110352002	MW-1A	EPA 9056	GCSV/13985		
50110352003	MW-1B	EPA 9056	GCSV/13985		
50110352004	MW-3	EPA 9056	GCSV/13985		
50110352005	MW-28D	EPA 9056	GCSV/13985		
50110352006	MW-28E	EPA 9056	GCSV/13985		
50110352007	MW-28C	EPA 9056	GCSV/13985		
50110352008	FB	EPA 9056	GCSV/13985		
50110352009	DUP	EPA 9056	GCSV/13985		
50110352001	MW-1	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352002	MW-1A	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352003	MW-1B	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352004	MW-3	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352005	MW-28D	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352006	MW-28E	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352007	MW-28C	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352008	FB	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352009	DUP	EPA 3010	MPRP/15079	EPA 6010	ICP/18148
50110352001	MW-1	SM 2540C	WET/19286		
50110352002	MW-1A	SM 2540C	WET/19286		
50110352003	MW-1B	SM 2540C	WET/19286		
50110352004	MW-3	SM 2540C	WET/19286		
50110352005	MW-28D	SM 2540C	WET/19286		
50110352006	MW-28E	SM 2540C	WET/19286		
50110352007	MW-28C	SM 2540C	WET/19286		
50110352008	FB	SM 2540C	WET/19286		
50110352009	DUP	SM 2540C	WET/19286		
50110352001	MW-1	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352002	MW-1A	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352003	MW-1B	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352004	MW-3	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352005	MW-28D	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352006	MW-28E	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352007	MW-28C	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352008	FB	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352009	DUP	HACH 8000	WET/19285	HACH 8000	WET/19295
50110352001	MW-1	SM 5310C	WETA/14286		
50110352002	MW-1A	SM 5310C	WETA/14286		
50110352003	MW-1B	SM 5310C	WETA/14286		

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GREEN VALLEY LF GW
Pace Project No.: 50110352

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50110352004	**MW-3**	SM 5310C	WETA/14286		
50110352005	**MW-28D**	SM 5310C	WETA/14308		
50110352006	**MW-28E**	SM 5310C	WETA/14308		
50110352007	**MW-28C**	SM 5310C	WETA/14308		
50110352008	**FB**	SM 5310C	WETA/14308		
50110352009	**DUP**	SM 5310C	WETA/14308		

5011035Z

KENVIRONS, INC.
CHAIN OF CUSTODY RECORD

452 Versailles Road; Frankfort, KY 40601
www.kenvirons.com (502) 695-4357 Fax: (502) 695-4383

Customer Name: Kenvirons | Submitter No. 9795

Project Number: 2007.0010

Client: Green Valley LF

Sampled By: BFK III / KDG

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 (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.
1/7/15	0940 AM PM		X	MW-1	GW	5	—	61.1	7.39	79	8.79	8.08	-57.7		001
1/7/15	1010 AM PM		X	MW-1A	GW	5	—	77.9	7.53	397	11.06	5.46	-69.7		002
1/7/15	1050 AM PM		X	MW-1B	GW	5	—	9.9	7.99	693	11.28	0.81	-95.1		003
1/7/15	1140 AM PM		X	MW-3	GW	5	—	31.1	5.89	595	10.38	6.11	10.6		004
1/7/15	1250 AM PM		X	MW-28D	GW	5	—	76.8	5.86	602	8.22	4.84	11.8		005
1/7/15	1315 AM PM		X	MW-28E	GW	5	—	15.3	6.94	205	9.31	5.40	-40.9		006
1/7/15	1442 AM PM		X	MW-28C	GW	5	—	34.5	5.56	474	6.54	2.08	26.1		007
1/7/15	1035 AM PM		X	FB	—	5	—	—	—	—	—	—	—		008
1/7/15	AM PM		X	Dup	GW	5	—	—	—	—	—	—	—		009
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														
	AM PM														

Relinquished by: (Signature) Date/Time: 1/7/15 1800 — Received by: (Signature): Sent Via UPS

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

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

Received for Lab by: (Signature) — Date: 1-8-15 Time: 0940 — -0.3 °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:
Run:
TDS 160.1, IC, COD, Metals, TOX, TOC

All GW Samples are Quarterly!

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

Sample Condition Upon Receipt

Pace Analytical

Client Name: Kennicrons Project # 50110352

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☐ yes ☐ no

Date/Time 5035A kits placed in freezer: _____

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer 1 2 3 4 5 (6) A B C D E F Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature (Corrected, if applicable) -0.3 Ice Visible in Sample Containers: ☒ yes ☐ no

Temp should be above freezing to 6°C

Comments:

Date and initials of person examining contents: JVC 1-8-15

Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	5.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	6.
Containers Intact:	☒Yes	☐No	☐N/A	7.
Sample Labels match COC: -Includes date/time/ID/Analysis	☒Yes	☐No	☐N/A	8.
All containers needing acid/base pres. have been checked? exceptions: VOA, coliform, TOC, O&G	☒Yes	☐No	☐N/A	9. (Circle) (HNO3) (H2SO4) NaOH HCl
All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.				
Headspace in VOA Vials (>6mm):	☐Yes	☒No	☐N/A	10.
Trip Blank Present:	☐Yes	☒No	☐N/A	11.
Trip Blank Custody Seals Present	☐Yes	☐No	☐N/A	
Project Manager Review:				
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	12.
Sufficient Volume:	☒Yes	☐No	☐N/A	13. CBB
Correct Containers Used:	☒Yes	☐No	☐N/A	14.

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: CBB **Date:** 1-9-15

Sample Container Count

CLIENT: Kenvirons

COC PAGE 1 of 1

COC ID# _____

Project # 50110352

Sample Line Item	DG9H	AG1U	WGFU	AG0U	R	4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	BP3C	BP1U	SP5T	_____	pH <2	pH>12	Comments
1							1	1	1				2								
2							1	1	1				2								
3							1	1	1				2								
4							1	1	1				2								
5							1	1	1				2								
6							1	1	1				2								
7							1	1	1				2								
8							1	1	1				2								
9							1	1	1				2								
10																					
11																					
12																					

Container Codes

DG9H	40mL HCL amber voa vial	AG0U	100mL unpreserved amber glass	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber glass	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved **amber** vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	SP5T	120mL Coliform Na Thiosulfate
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber glass	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber glass	AF	Air Filter	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved **clear** vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear glass	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFX	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag

January 19 2015

Chris Boyle
Pace Analytical-IN
7726 Moller Road
Indianapolis, IN 46268

RE: PAS Subcontract-CB
50110352

Enclosed are the results of analyses for samples received by the laboratory on 01/09/15 10:50. If you have any questions concerning this report, please feel free to contact me at 1-800-858-5227.

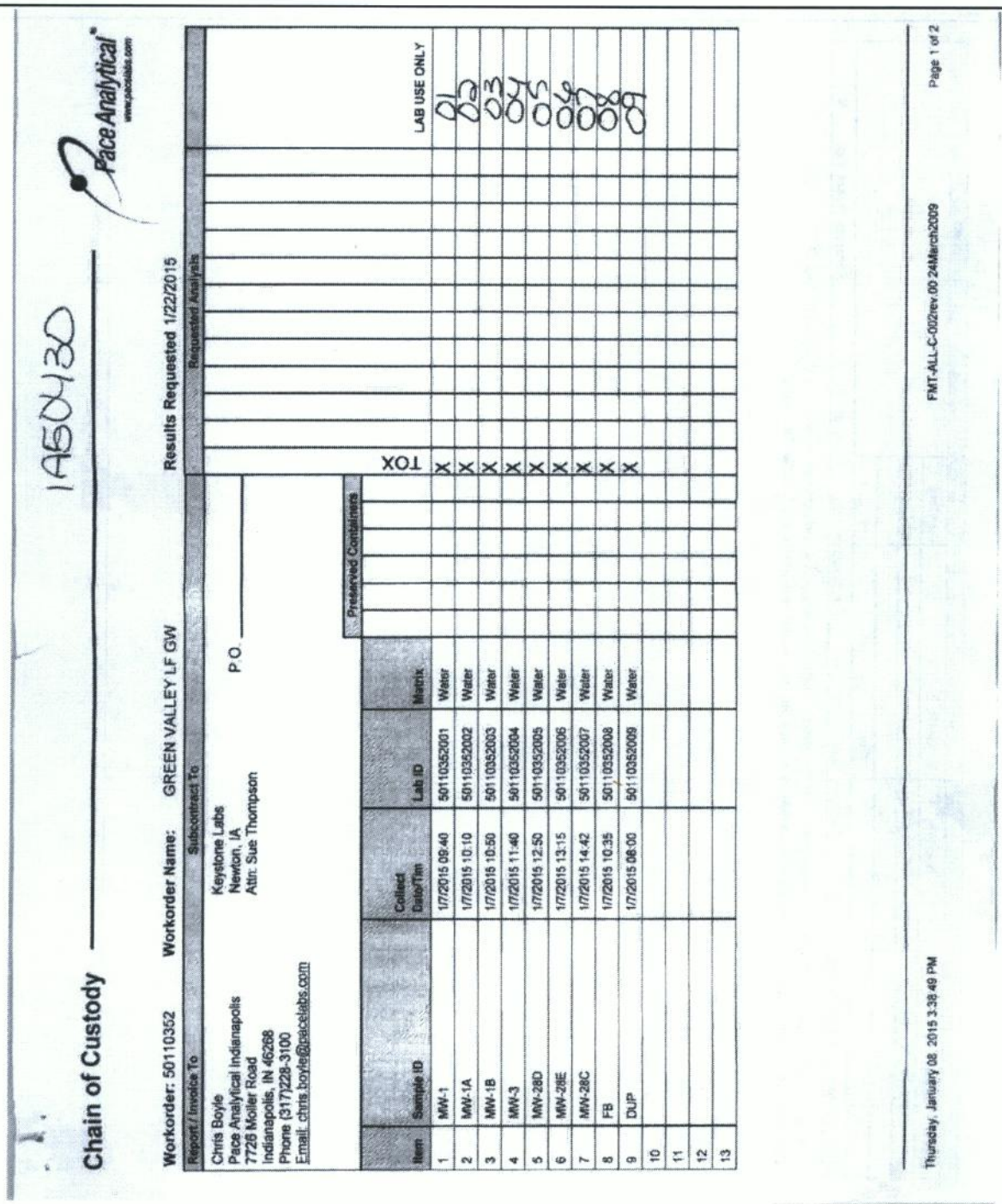
ANALYTICAL REPORT FOR SAMPLES

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	1A50430-01	Water	01/07/15 09:40	01/09/15 10:50
MW-1A	1A50430-02	Water	01/07/15 10:10	01/09/15 10:50
MW-1B	1A50430-03	Water	01/07/15 10:50	01/09/15 10:50
MW-3	1A50430-04	Water	01/07/15 11:40	01/09/15 10:50
MW-28D	1A50430-05	Water	01/07/15 12:50	01/09/15 10:50
MW-28E	1A50430-06	Water	01/07/15 13:15	01/09/15 10:50
MW-28C	1A50430-07	Water	01/07/15 14:42	01/09/15 10:50
FB	1A50430-08	Water	01/07/15 10:35	01/09/15 10:50
DUP	1A50430-09	Water	01/07/15 08:00	01/09/15 10:50

Client Supplied Containers

Phone 641-792-8451
600 East 17th Street South
Newton, IA 50208
Fax 641-792-7838

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26



Chain of Custody

Pace Analytical www.pacelabs.com

1A60430

Workorder: 50110352 Workorder Name: GREEN VALLEY LF GW Results Requested 1/22/2015

Report / Invoice To
Chris Boyle
Pace Analytical Indianapolis
7726 Moller Road
Indianapolis, IN 46268
Phone (317)228-3100
Email: chris.boyle@pacelabs.com

Subcontract To
Keystone Labs
Newton, IA
Attn: Sue Thompson

P.O. _____

Requested Analysis

Item	Sample ID	Collect Date/Tim	Lab ID	Matrix	Preserved Containers	TOX	LAB USE ONLY
1	MW-1	1/7/2015 09:40	50110352001	Water		X	01
2	MW-1A	1/7/2015 10:10	50110352002	Water		X	02
3	MW-1B	1/7/2015 10:50	50110352003	Water		X	03
4	MW-3	1/7/2015 11:40	50110352004	Water		X	04
5	MW-28D	1/7/2015 12:50	50110352005	Water		X	05
6	MW-28E	1/7/2015 13:15	50110352006	Water		X	06
7	MW-28C	1/7/2015 14:42	50110352007	Water		X	07
8	FB	1/7/2015 10:35	50110352008	Water		X	08
9	DUP	1/7/2015 08:00	50110352009	Water		X	09
10							
11							
12							
13							

Thursday, January 08, 2015 3:38:49 PM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 2

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

IA 50430

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible]	1/8 15/1600		
2				
3			[illegible] Hoyt	1-9-15 1030

Comments

Cooler Temperature on Receipt °C Custody Seal Y or N Received on Ice Y or N Samples intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Thursday, January 08, 2015 3:38:48 PM

FMT-ALL-C-002rev.00 24March2009

Page 2 of 2

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-9685

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

MW-1

1A50430-01 (Water)

Date Sampled:1/7/2015 9:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	**0.010**	0.010	mg/L	1	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7138

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

MW-1A

1A50430-02 (Water)

Date Sampled:1/7/2015 10:10:00AM

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	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7838

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

MW-1B

1A50430-03 (Water)

Date Sampled:1/7/2015 10:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	**0.014**	0.010	mg/L	1	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7431

Pace Analytical-IN	Project: PAS Subcontract-CB	Reported
7726 Moller Road	Project Number: 50110352	01/19/15 11:26
Indianapolis, IN 46268	Project Manager: Chris Boyle	

MW-3

1A50430-04 (Water)

Date Sampled:1/7/2015 11:40:00AM

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	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451 600 East 17th Street South Newton, IA 50208 Fax 641-792-8456

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

MW-28D

1A50430-05 (Water)

Date Sampled:1/7/2015 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	**0.033**	0.010	mg/L	1	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7638

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

MW-28E

1A50430-06 (Water)

Date Sampled:1/7/2015 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	ND	0.010	mg/L	1	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-9338

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

MW-28C

1A50430-07 (Water)

Date Sampled:1/7/2015 2:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Keystone Laboratories, Inc. - Newton									
Determination of Conventional Chemistry Parameters									
Total Organic Halogens (TOX)	**0.017**	0.010	mg/L	1	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7138

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

FB

1A50430-08 (Water)

Date Sampled:1/7/2015 10:35:00AM

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	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451
600 East 17th Street South
Newton, IA 50208
Fax 641-792-7838

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

DUP

1A50430-09 (Water)

Date Sampled:1/7/2015 8:00:00AM

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	1YA0445	01/15/15	01/15/15 16:16	EPA 9020	

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7336

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

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 1YA0445 - TOX/TX/EOX										
Blank (1YA0445-BLK1)				Prepared & Analyzed: 01/15/15						
Total Organic Halogens (TOX)	ND	0.010	mg/L							
LCS (1YA0445-BS1)				Prepared & Analyzed: 01/15/15						
Total Organic Halogens (TOX)	0.0927	0.010	mg/L	0.0946754		98.0	69-125			
Reference (1YA0445-SRM1)				Prepared & Analyzed: 01/15/15						
Total Organic Halogens (TOX)	0.0910	0.010	mg/L	0.0948908		95.9	90-110			
Reference (1YA0445-SRM2)				Prepared & Analyzed: 01/15/15						
Total Organic Halogens (TOX)	0.0865	0.010	mg/L	0.0948908		91.1	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	04/30/2015
KS-NT	Kansas Department of Health and Environment	E-10287	03/31/2015
MO-KC	Missouri Department of Natural Resources	140	04/30/2015
NELAC	New Jersey Department of Environmental Protection	IA001	06/30/2015
SIA1X	Iowa Department of Natural Resources	95	02/01/2016

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-7988

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

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

Keystone LABORATORIES, INC.

MEMBER ACIL

Pace Analytical-IN 7726 Moller Road Indianapolis, IN 46268	Project: PAS Subcontract-CB Project Number: 50110352 Project Manager: Chris Boyle	Reported 01/19/15 11:26

Sue Thompson

Sue Thompson

Project Manager II

Phone 641-792-8451

600 East 17th Street South
Newton, IA 50208

Fax 641-792-8638

Page 15 of 15

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	4.51	613.29	1/7/15	0905
MW-1A	618.60	8000-2931	41.00	1.90	616.70	1/7/15	0950
MW-1B	618.70	8000-2932	61.00	6.03	612.67	1/7/15	1035
MW-3	630.80	8000-8085	14.10	6.10	624.70	1/7/15	1115
MW-28C	674.40	8005-7101	12.90	3.95	670.45	1/7/15	1331
MW-28D	675.20	8005-7102	16.30	4.87	670.33	1/7/15	1220
MW-28E	677.00	8005-7103	27.30	9.37	667.63	1/7/15	1255

TECHNICIAN Bill F. Knorr, III DATE 1/7/15 QUARTER 1st

KENVIRONS, INC.

Well / Spring Field Reading Log

Facility: Green Valley LF

Date: 1/7/15 Sampler(s) BFK III / KDG

Well / Spring No.		pH	Conductivity	Temp	DO	ORP	Turbidity
Well No.	mw-1	7.39	79	8.79	8.08	-57.7	61.1
Well No.	mw-1A	7.53	397	11.06	5.46	-69.7	77.9
Well No.	mw-1B	7.99	693	11.28	0.81	-95.1	9.9
Well No.	mw-3	5.89	595	10.38	6.11	10.6	31.1
Well No.	mw-28C	5.56	474	6.54	2.08	26.1	34.5
Well No.	mw-28D	5.80	602	8.22	4.84	11.8	76.8
Well No.	mw-28E	6.94	205	9.31	5.40	-40.9	15.3
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. KTM Date: 1/7/15

KENVIRONS INC.,
GROUNDWATER FIELD LOG

Site Name: Green Valley Landfill	Well No. MW-1	Total Depth (ft) 14.80	Initial Depth to Water (ft.) 4.51	Height of Water Column (ft.) 10.29	Date 1/7	Time 0905	Project No. 2007006
Site Location Greenup Co., KY	AKGWA # 8000 - 8086	Casing Diameter ☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	Measuring Point (ft. MSL) 617.80	Groundwater Elevation 613.29	Well Volume (gallons) 6.89		Z # —

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☐ Clear ☐ Partly Cloudy ☒ Overcast ☐ Windy Temp. 20 (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.	#
0922	0	4.51	100	0	8.45	90	10.02	7.82	-84.8	72.6	GA- 40ml Vials HCL	
0925	3		100	.3	8.86	81	8.90	7.59	-72.1	62.4	G- 40ml Vials HCL	
0928	6		100	.6	8.83	80	8.78	7.60	-73.7	62.3	P-500 ml HNO_3	1
0931	9		100	.9	8.80	80	8.50	7.44	-67.3	77.7	P-500 ml H_2SO_4	1
0934	12		100	1.2	8.79	79	8.36	7.39	-62.2	64.4	P-500 ml Unp.	1
0937	15	7.80	100	1.5	8.79	79	8.08	7.39	-57.7	61.1	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
0940	7.80	None	Slight	8.79	79	8.08	7.39	-57.7	61.1	Cloudy

☐ Annual ☐ Semi-Annual ☒ Quarterly ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature BTB F. K JM **Date** 1/7/15

MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill

Evaluator: BFK III

Evaluation Date: 1/7/15

Well Identification Number MW-1

AKGWA Number

	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: well & protective posts need painted.

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.) 1.90	Height of Water Column (ft.) 39.10	Date 1/7	Time 0950	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 616.70	Well Volume (gallons) 26.19		Z # ——

☐ Rain ☐ Sleet/Freezing Rain ☐ Snow ☐ Fog ☐ Clear ☐ Partly Cloudy ☒ Overcast ☐ Windy Temp. 20 (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.	#
0958	0	1.90	100	0	10.84	398	6.46	7.44	-65.6	76.4	GA- 40ml Vials HCL	
1001	3		100	.3	10.95	398	5.89	7.49	-67.8	112.6	G- 40ml Vials HCL	
1004	6		100	.6	10.94	397	5.86	7.51	-68.7	196.9	P-500 ml HNO_3	1
1007	9	4.22	100	.9	11.06	397	5.46	7.53	-69.7	77.9	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
1010	4.22	Light orange	slight	11.06	397	5.46	7.53	-69.7	77.9	cloudy

☐ Annual ☐ Semi-Annual ☒ Quarterly ☐ Monthly ☐ Other ☒ Duplicate Collected Time: 1020 DTW: 4.37

Sampler(s) Signature [signature] Date 1/7/15

MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill
Evaluator: BFK III
Evaluation Date: 1/7/15
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: well & posts need painted.

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.) 6.03	Height of Water Column (ft.) 54.97	Date 1/7	Time 1035	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 612.67	Well Volume (gallons) 36.82		Z # —

☐ Rain ☐ Sleet/Freezing Rain ☒ Snow ☐ Fog ☐ Clear ☐ Partly Cloudy ☒ Overcast ☐ Windy Temp. 20 (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.	#
1038	0	6.03	100	0	9.69	702	7.61	7.80	-82.4	34.5	GA- 40ml Vials HCL	
1041	3		100	.3	10.92	693	3.20	7.90	-88.1	25.4	G- 40ml Vials HCL	
1044	6		100	.6	11.09	692	1.41	7.99	-92.5	23.8	P-500 ml HNO_3	1
1047	9	9.65	100	.9	11.28	693	0.81	7.99	-95.1	9.9	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: 1035
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
1050	9.65	None	Strong	11.28	693	0.81	7.99	-95.1	9.9	Clear

☐ Annual ☐ Semi-Annual ☒ Quarterly ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature B. Op E. K. III **Date** 1/7/15

MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill

Evaluator: BFK III

Evaluation Date: 1/7/15

Well Identification Number MW-1B

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?	BFK III ☒	☒	☐	■

Comments: well & posts need painted.

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.) 6.10	Height of Water Column (ft.) 8.00	Date 1/7	Time 1115	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 624.70	Well Volume (gallons) 5.36		Z # —

☐ Rain ☐ Sleet/Freezing Rain ☒ Snow ☐ Fog ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 20 (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.	#
1124	0	6.10	200	0	9.31	538	10.60	6.67	-25.6	38.9	GA- 40ml Vials HCL	
1127	3		200	.6	9.62	594	9.14	6.05	2.9	37.5	G- 40ml Vials HCL	
1130	6		200	1.2	9.92	592	8.29	5.95	8.0	38.8	P-500 ml HNO_3	1
1133	9		200	1.8	10.15	592	7.12	5.92	9.3	33.0	P-500 ml H_2SO_4	1
1136	12	6.95	200	2.4	10.38	595	6.11	5.89	10.6	31.1	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
1140	6.95	None	None	10.38	595	6.11	5.89	10.6	31.1	Cloudy

☐ Annual ☐ Semi-Annual ☒ Quarterly ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature Bell E K JH **Date** 1/7/15

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: 1/7/15
Well Identification Number MW-3
AKGWA Number

	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: well & posts need painted.

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.	Total Depth (ft)	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date	Time	Project No.
	mw-28c	12.90	3.95	8.95	1/7	1331	2007006
Site Location	**AKGWA #**	**Casing Diameter**	**Measuring Point (ft. MSL)**	**Groundwater Elevation**	**Well Volume (gallons)**		**Z #**
Greenup Co., KY	8005-7101	☒ 4" ☐ 2" Conversion fact. 4"- 0.67/2"- 0.16	674.40	670.45	5.99		—

☐ Rain ☐ Sleet/Freezing Rain ☒ Snow ☐ Fog ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 15 (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.	#
1427	0	3.95	200	0	6.92	183	4.36	5.23	42.0	53.2	GA- 40ml Vials HCL	
1430	3		200	.6	6.97	479	3.34	5.71	18.7	48.5	G- 40ml Vials HCL	
1433	6		200	1.2	6.68	480	2.72	5.63	22.6	42.4	P-500 ml HNO_3	1
1436	9		200	1.8	6.63	473	2.48	5.58	24.8	38.8	P-500 ml H_2SO_4	1
1439	12	5.01	200	2.4	6.54	474	2.08	5.56	26.1	34.5	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
1442	5.01	None	None	6.54	474	2.08	5.56	26.1	34.5	Cloudy

☐ Annual ☐ Semi-Annual ☒ Quarterly ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature Bill F. Kemm **Date** 1/7/15

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MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill
Evaluator: BFK III
Evaluation Date: 1/7/15
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: well & posts need painted.

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.) 4.87	Height of Water Column (ft.) 11.43	Date 1/7	Time 1220	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 670.33	Well Volume (gallons) 7.65		Z #

☐ Rain ☐ Sleet/Freezing Rain ☒ Snow ☐ Fog ☐ Clear ☐ Partly Cloudy ☐ Overcast ☐ Windy Temp. 15 (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.	#
1232	0	4.87	200	0	5.60	673	9.44	6.97	-49.6	131.9	GA- 40ml Vials HCL	
1235	3		200	.6	6.61	678	6.95	6.24	-6.4	133.1	G- 40ml Vials HCL	
1238	6		200	1.2	7.40	652	5.88	6.00	4.8	121.3	P-500 ml HNO_3	1
1241	9		200	1.8	8.06	622	5.41	5.92	8.5	72.5	P-500 ml H_2SO_4	1
1244	12		200	2.4	8.26	605	5.09	5.88	10.7	90.1	P-500 ml Unp.	1
1247	15	6.35	200	3.0	8.22	602	4.84	5.86	11.8	76.8	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
1250	6.35	Tan	None	8.22	602	4.84	5.86	11.8	76.8	cloudy

☐ Annual ☐ Semi-Annual ☐ Quarterly ☐ Monthly ☐ Other ☐ Duplicate Collected Time: DTW:

Sampler(s) Signature Bill E. K TM **Date** 1/7/15

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MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill
Evaluator: BFK III
Evaluation Date: 1/7/15
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?	☒	☐	☐	■
17) Is the cap void of large gaps which would breach security?	☒	☐	☐	■
18) Is the locking cap free of rust?	☐	☒	☐	■

Comments: well & posts need painted.

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.	Total Depth (ft)	Initial Depth to Water (ft.)	Height of Water Column (ft.)	Date	Time	Project No.
	MW-28E	27.30	9.37	17.93	1/7	1255	2007006

Site Location	AKGWA #	Casing Diameter	Measuring Point (ft. MSL)	Groundwater Elevation	Well Volume (gallons)	Z #
Greenup Co., KY	8005-7103	[X] 4" [ ] 2" Conversion fact. 4"- 0.67/2"- 0.16	677.00	667.63	12.01	——

[ ] Rain [ ] Sleet/Freezing Rain [X] Snow [ ] Fog [ ] Clear [ ] Partly Cloudy [ ] Overcast [ ] Windy Temp. 15 (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.	#
1304	0	9.37	200	0	8.84	225	8.52	6.81	-34.8	21.2	GA- 40ml Vials HCL	
1307	3		200	.6	8.97	222	6.34	6.93	-40.2	15.9	G- 40ml Vials HCL	
1310	6		200	1.2	9.09	212	5.69	6.93	-40.4	15.6	P-500 ml HNO_3	1
1313	9	9.70	200	1.8	9.31	205	5.40	6.94	-40.9	15.3	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.	
For Three (3) Consecutive Readings			Required Purge	Actual Purge	+/- 1 (°C)	+/- 10%	+/- .3 (Mg/L)	+/- .10 SU	+/- 10% mV	+/- 10% unless <10 NTU	Comments	

Well Cond.	Pad Cond	Lock Funct.	Bladder Pump	Casing S.S. [ ] Casing PVC [X]	[ ] Field Blank Collected Time:
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
1315	9.70	None	slight	9.31	205	5.40	6.94	-40.9	15.3	clear

[ ] Annual [ ] Semi-Annual [X] Quarterly [ ] Monthly [ ] Other [ ] Duplicate Collected Time: DTW:

Sampler(s) Signature [signature] **Date** 1/7/15

MONITORING WELL INTEGRITY FIELD SURVEY

Facility Name: Green Valley Landfill
Evaluator: BFK III
Evaluation Date: 1/7/15
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: Well & posts need painted.

NOTES: 1) Response box legend:
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KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601
502-695-4357
502-695-4363 (fax)

Green Valley Landfill (2007006)

Well No.	Depth to water	Well Depth	AKGWA No.	Sample Collected		Well / Under Drain Dry	Insufficient Recharge
				YES	NO		
MW-1	4.51	14.80	8000-8086	☒	☐	☐	☐
MW-1A	1.90	41.00	8000-2931	☒	☐	☐	☐
MW-1B	6.03	61.00	8000-2932	☒	☐	☐	☐
MW-3	6.10	14.10	8000-8085	☒	☐	☐	☐
MW-28C	3.95	12.90	8000-2937	☒	☐	☐	☐
MW-28D	4.87	16.30	8000-2938	☒	☐	☐	☐
MW-28E	9.37	27.30	8000-2939	☒	☐	☐	☐
DUP	—	-	-	✓			
FB	—	-	-	✓			

Notes:

TECHNICIAN Bill F. Knarr, III DATE 1/7/15