GZA
GeoEnvironmental, Inc.

Engineers and Scientists

March 21, 2014
File No. 01.0024065.14

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Re: Semi-Annual Project Progress Report
July 2013 (Q3) through December 2013 (Q4)
Hewlett-Packard Company Voluntary Remediation Project
San German, Puerto Rico

Dear Ms. Toro:

GZA GeoEnvironmental, Inc., on behalf of Hewlett-Packard Company, is submitting the semi-annual Project Progress Report for the San German voluntary remediation project (reporting period July 2013 (Q3) through December 2013 (Q4)). During this reporting period the groundwater containment and treatment system was not in operation consistent with the plan to evaluate intrinsic biodegradation as a remedial strategy for the subject site. Implementation of the Intrinsic Biodegradation Study commenced in late October 2010 and continued through the current reporting period.

Please contact the undersigned or Mr. Paul Paschke (Hewlett-Packard Company) at 970-898-0573 or paul.paschke@hp.com, if you have any questions.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

John A. Colbert
Senior Project Manager

Karen Kinsella
Consultant/Reviewer

Charles A. Lindberg
Senior Principal

Attachment: July 2013 (Q3) through December 2013 (Q4) Project Progress Report

cc: File
Díaz, Lorena Rodríguez; Puerto Rico Environmental Quality Board
Aviles, Jesse; United States Environmental Protection Agency Region II
Morales, Jorge; Puerto Rico Industrial Development Company
Meléndez, Joel; Puerto Rico Industrial Development Company
Fornés, Karen; Puerto Rico Industrial Development Company
Paschke, Paul; Hewlett-Packard Company

SEMI-ANNUAL PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD
VOLUNTARY REMEDIAL ACTIONS
SAN GERMAN, PUERTO RICO

PREPARED FOR:
Hewlett-Packard Company
Fort Collins, Colorado

PREPARED BY:
GZA GeoEnvironmental, Inc.
Norwood, Massachusetts

March 2014
File No. 01.0024065.14

TABLE OF CONTENTS

Page

1.0 INTRODUCTION **1**
2.0 REPORTING PERIOD **1**
3.0 REMEDIAL SYSTEM DESCRIPTION **1**
4.0 KEY SITE ACTIVITIES FOR REPORTING PERIOD **2**
5.0 KEY PROJECT DOCUMENTS FOR REPORTING PERIOD **2**
6.0 GWTS OPERATION AND MAINTENANCE ACTIVITIES **3**
6.1 GWTS O&M 3
6.2 WASTE MANAGEMENT 3
6.3 PRASA DISCHARGE AUTHORIZATION MONITORING 3
7.0 IB WORK PLAN IMPLEMENTATION **3**
7.1 GROUNDWATER ELEVATION MONITORING 4
7.2 SECOND QUARTER 2013 GROUNDWATER SAMPLING 5
7.3 GROUNDWATER MONITORING RESULTS 6
7.4 DEVIATIONS FROM QAPP REVISION 3 9
7.5 DATA VALIDATION 9
7.6 CONCLUSIONS 9
8.0 PLANNED ACTIVITIES FOR NEXT REPORTING PERIOD **10**
8.1 PUERTO RICO INDUSTRIAL DEVELOPMENT COMPANY / EQB / PRASA ACTION ITEMS 10
8.1.1 PRIDCO Action Items 10
8.1.2 EQB Action Items 10
8.1.3 PRASA Action Items 10
8.2 GWCTS ASSOCIATED ACTION ITEMS 11
8.2.1 Extraction Wells 11
8.2.2 Groundwater Treatment System 11
8.2.3 Telemetry System 11
8.2.4 Monitoring Wells 11
8.2.5 Site 12

TABLES

TABLE 1 SUMMARY OF GROUNDWATER TESTING RESULTS – VOCS

TABLE 2 SUMMARY OF GROUNDWATER TESTING RESULTS – BIODEGRADATION PARAMETERS

TABLE 3 INTRINSIC BIODEGRADATION SAMPLING PROGRAM

TABLE 4 SUMMARY OF GROUNDWATER ELEVATION DATA

TABLE 5 PROPOSED IB SAMPLING PROGRAM – APRIL 2014

TABLE OF CONTENTS (Continued)

FIGURES

FIGURE 1	LOCUS PLAN
FIGURE 2	SITE PLAN
FIGURE 3	W-1 AND W-8 TEMPORAL GROUNDWATER ELEVATIONS
FIGURE 4	OCTOBER 2013 GROUNDWATER CONTOURS IN BEDROCK
FIGURE 5A	TCE CONTOUR IN FILL
FIGURE 5B	TCE CONTOUR IN SAPROLITE/BEDROCK
FIGURE 5C	DCE CONTOUR IN FILL
FIGURE 5D	DCE CONTOUR IN SAPROLITE/BEDROCK
FIGURE 5E	VC CONTOUR IN FILL
FIGURE 5F	VC CONTOUR IN SAPROLITE/BEDROCK

APPENDICES

APPENDIX A	LIMITATIONS
APPENDIX B	VOC CONCENTRATION TREND ANALYSIS
APPENDIX C	VOC MOLARITY TREND ANALYSIS
APPENDIX D	IB PARAMETERS TREND ANALYSIS
APPENDIX E	LABORATORY ANALYTICAL REPORTS – OCTOBER 2013
APPENDIX F	DATA VALIDATION
APPENDIX G	DNER CLOSURE REPORT

1.0 INTRODUCTION

This Semi-Annual Project Progress Report is the thirty-eighth report submitted in support of the Hewlett-Packard Company (Hewlett-Packard) Voluntary Soil and Groundwater Remediation project at the Former Digital Equipment Corporation[1] facility in San German, Puerto Rico (the "Site"). Refer to Figure 1 for a Locus Plan. Hewlett-Packard has retained GZA GeoEnvironmental, Inc. (GZA) to perform this work in accordance with the Intrinsic Biodegradation (IB) Study Work Plan[2] ("IB Work Plan") previously submitted to the Environmental Quality Board of Puerto Rico (EQB) and the United States Environmental Protection Agency (EPA).

Groundwater sampling was performed in general accordance with Hewlett-Packard's Quality Assurance Project Plan (QAPP) (Revision 3, Voluntary Remediation Project, San German, dated May 2010) developed for the Hewlett-Packard Voluntary Soil and Groundwater Remediation Project. Pertinent project analytical data have been validated by a Puerto Rico-certified chemist. Please note that the findings, opinions, conclusions, and recommendations presented in this report are subject to the Limitations provided in Appendix A.

2.0 REPORTING PERIOD

This progress report covers the period from July 1, 2013 (beginning of third quarter 2013) through December 31, 2013 (end of fourth quarter 2013).

3.0 REMEDIAL SYSTEM DESCRIPTION

As a source control measure, a soil vapor extraction (SVE) system was operated at the site between October 1995 and November 2004. Hewlett-Packard received EQB's concurrence to deactivate and decommission the SVE system in a letter dated October 25, 2004. The SVE system was deactivated on November 11, 2004 and decommissioning was completed in February 2005.

In addition to source control measures, a Groundwater Containment and Treatment System (GWCTS) was installed and operated at the site, beginning in October 1995. In accordance with the IB Work Plan, operation of this system was discontinued on

[1] Hewlett-Packard Company and Compaq Computer Corporation merged in 2003 and Compaq Computer Corporation had acquired Digital Equipment Corporation in 1998.

[2] GZA, May 14, 2010, Intrinsic Biodegradation Study Work Plan, Hewlett-Packard, Voluntary Remedial Actions, San German, Puerto Rico. (Revision and Response to Comments submitted to EQB on September 29, 2010. IB Work Plan was approved in writing by EQB on October 29, 2010.)

November 1, 2010, with EQB's concurrence as described in their letter dated October 29, 2010. The GWCTS has remained shut down during this reporting period.

The objective of the IB study is to evaluate whether, in the absence of any additional remedial technologies, IB of the residual chlorinated volatile organic compounds (cVOCs) in groundwater can continue to reduce dissolved concentrations while maintaining a condition of no significant risk to human or environmental receptors. The GWCTS will remain deactivated during this evaluation. Refer to Figure 2 for locations of the GWCTS components.

The groundwater treatment system (GWTS) is located in the northeastern portion of the site. Prior to the start of this IB study, treated groundwater was discharged to the sanitary sewer under Hewlett-Packard's Puerto Rico Aqueduct and Sewer Authority (PRASA) Discharge Authorization (AUA-E-06-313-018).

4.0 KEY SITE ACTIVITIES FOR REPORTING PERIOD

Low-flow groundwater quality sampling was conducted at the Site from October 29 through 31, 2013 by a subcontractor, JFA Geological & Environmental Scientists, P.S.C. (JFA), with on-Site observation provided by GZA. Water levels were obtained in accordance with the IB Work Plan on July 18 and October 28, 2013 by JFA.

Between November 1 and November 12, 2013, extraction wells W-1, W-7 and W-8 were decommissioned in accordance with the Department of Natural and Environmental Resources (DNER) permit O-FA-PSP07-SJ-00099-28052013 issued on October 8, 2013.

The GWCTS was inspected on a monthly basis by a subcontractor, FMC Mechanical, Inc. No testing of the components could be completed following the loss of electrical power caused by vandalism to the system that occurred in July 2012.

No repairs or replacement of electrical equipment has been made at this time given the severity and reoccurrence of vandalism issues at the site[3].

5.0 KEY PROJECT DOCUMENTS FOR REPORTING PERIOD

Key project documents generated during this reporting period are presented below.

AUTHOR	TITLE	DATE
GZA	Semi-Annual Project Progress Report (Num. 37) January through July 2013	10/4/2013

[3] The high cost to replace hundreds of feet of electrical wiring and conduit and the high probability of continued vandalism at this Site make corrective action unfeasible at this time.

6.0 GWTS OPERATION AND MAINTENANCE ACTIVITIES

This section discusses operation and maintenance (O&M) activities performed during this reporting period.

6.1 GWTS O&M

The GWTS was not in operation during this reporting period. Various housekeeping/monitoring activities were conducted as needed.

6.2 WASTE MANAGEMENT

Approximately 50 gallons of purge water were generated during the October 2013 groundwater sampling event. This water was stored on-Site and was treated on-Site on December 9, 2013 using liquid-phase carbon. Following treatment, the purge water was sampled on January 22, 2014. Upon receipt of acceptable results, the treated purge water was discharged to the sanitary sewer in accordance with the PRASA discharge authorization on February 3, 2014.

6.3 PRASA DISCHARGE AUTHORIZATION MONITORING

Groundwater purged from monitoring wells during sampling events was treated with liquid-phase carbon. Treated purge water samples were not collected during this reporting period. (As noted above, the sampling occurred in January 2014.) Quarterly reports will continue to be submitted to PRASA to maintain the permit (AUA-E-06-313-018) should the groundwater treatment system need to be restarted or should additional groundwater generated from sampling events need to be processed.

7.0 IB WORK PLAN IMPLEMENTATION

On October 26, 2010, implementation of the IB Work Plan began with the baseline groundwater gauging and sampling conducted October 26 through 29, 2010 and November 1, 2010. On November 1, 2010, the GWCTS was deactivated. This work was performed in accordance with the IB Work Plan and EQB's concurrence letter dated October 29, 2010. Groundwater monitoring wells were gauged for groundwater elevation and sampled for laboratory and/or field analyses to meet the principal objectives of:

(i) Evaluating whether dissolved cVOC concentrations at the Site continue to decline;

(ii) Assessing the relative proportion of trichloroethene (TCE) to its daughter compounds, and quantifying other biologically-sensitive parameters, to confirm biodegradation is occurring along expected degradation pathways; and,

(iii) Evaluating the potential for off-Site migration of impacted groundwater via evaluation of groundwater elevation/flow contours and perimeter well monitoring.

This section discusses the data collected during this reporting period and the associated preliminary findings.

Over fifty monitoring wells were used to monitor groundwater during this reporting period, and thirty-four of those wells were sampled on October 29 through 31, 2013 for cVOCs and IB screening parameters in accordance with the EQB-approved IB Work Plan and QAPP Revision 3, dated May 14, 2010. Three wells (GZ-504U, WB-1U, and OW-305U) were not sampled as scheduled because they were dry or had an insufficient volume of water during the sampling period. The results of the October 2013 groundwater sampling event are presented in Tables 1 and 2. Table 3 summarizes the wells sampled during the October 2013 groundwater sampling event as compared to those required to be sampled by the IB Work Plan.

With the exception of well BR-308, which is a deep six-inch diameter bedrock well, the monitoring wells consist of two-inch-diameter screens and casings that have been installed in the fill/alluvium, saprolite, and bedrock units. Each monitoring well is covered by a road box to protect it from vehicular traffic. A lockable well plug is installed at the top of each monitoring well casing within the road box.

The sentinel groundwater monitoring wells installed north of the Site in February 2012 (GZ-601L and GZ-601R) were included in the gauging and sampling event conducted in October 2013.

7.1 GROUNDWATER ELEVATION MONITORING

During this reporting period, groundwater elevations were gauged in accordance with the IB Work Plan. The elevation data was collected quarterly, on July 18 and October 28, 2013. These data, along with previous data dating back to October 2010 are presented in Table 4.

The groundwater elevations in the well network were measured using a water level indicator, except for six wells on the adjacent Puerto Rico Power Authority (PREPA) property (GZ-507R, GZ-508R, GZ-509R, GZ-510R, GZ-512R, and GZ-513R). Prior to abandoning the screens in these wells, as required under the PREPA access agreement, pressure transducers were installed to allow for continued water level monitoring.

Figure 3 depicts the groundwater elevations at extraction wells W-1 and W-8 since pumping was terminated and prior to being decommissioned in November 2013. As shown on this figure, groundwater elevations at these two wells generally increased until fall 2011 and then leveled off, as is consistent with the development of steady-state conditions.

Bedrock groundwater elevation contours for the most recent monitoring round (October 28, 2013) are presented on Figure 4. These data show that, under non-pumping conditions, groundwater generally flows north-west across the eastern portions of the Site, and then mainly north-westerly from the western portions of the Site to the adjacent property owned by PREPA.

7.2 OCTOBER 2013 GROUNDWATER SAMPLING

During the October 2013 sampling round, select monitoring wells were sampled for specific IB parameters[4] and/or cVOCs. The groundwater cVOC concentrations are used to monitor cVOC distribution and temporal trends, and the cVOC concentrations plus IB parameters are used to evaluate the evidence for IB at the Site. Analyses conducted for each well were in general accordance with Table 2 of the IB Work Plan, with the following exceptions:

- Monitoring wells GZ-504U, WB-1U, and OW-305U were not sampled because the wells were dry or had an insufficient volume of water during the October 2013 sampling round; and
- Wells GZ-601L, GZ-601R, OW-305U, GZ-515U, OW-102, OW-301, OW-408, WB-3L, WB-4L, GZ-505R, GZ-504L, and GZ-504R were proactively added to the required list so as to provide a more complete set of IB parameters and cVOCs to enhance the available data set for those areas.

Refer to Table 3 for the list of wells that were sampled, and Figure 2 for the locations of these wells.

Groundwater sampling was conducted employing low-flow techniques in accordance with Revision 3 of the QAPP (dated May 2010). This sampling event took three days to complete (October 29 through 31, 2013). The groundwater elevation at each well was measured using a water level indicator prior to well purging. The well was then purged at a rate that limited drawdown until the low-flow parameters (temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), and specific conductance (SC)) stabilized. If a well was purged dry, it was allowed to recharge and was sampled upon recharge or the next day. Trip blanks and field blanks were collected each day of sampling. An equipment blank was collected on October 31, 2013. One field duplicate was collected each day on October 29 and 30, 2013. One matrix spike/matrix spike duplicate was collected each day on October 29 and 31, 2013. Blanks and duplicates were analyzed for cVOCs only. Temperature blanks were included in each cooler, but were only used to aid the laboratory in measuring the temperature of the cooler upon arrival and were not analyzed for chemical constituents.

[4] The full set of IB parameters include dissolved iron, sulfate, methane, ethane, ethene, nitrate, TOC, chloride, and the field parameters DO, ORP, and pH. The limited set includes VOCs, TOC, and the field parameters DO, ORP, and pH.

Purge water generated from the groundwater sampling event was temporarily stored and secured in a 55-gallon drum and was processed on-Site and will be properly discharged to the sanitary sewer.

Groundwater samples were submitted to TestAmerica of Tallahassee, Florida, and were analyzed for cVOCs by EPA Method 8260C; nitrate by calculated difference of EPA Method 353.2 and SM4500-NO2; dissolved iron by EPA Method 6010B; chloride and sulfate by EPA Method 300.0; methane, ethane, and ethene by EPA Method RSK-175; and total organic carbon (TOC) by SM 5310C. The analytical results for cVOCs were certified by a Puerto Rico-certified chemist and were validated by GZA as required by QAPP Revision 3.

7.3 GROUNDWATER MONITORING RESULTS

Laboratory analytical results for groundwater samples collected in October 2013 are summarized in Table 1 (VOCs) and Table 2 (IB Parameters). These tables also provide results from the three or six next most recent analyses for each well[5]. Temporal trend graphs for concentration and molarity for TCE, *cis*-1,2-dichloroethene (1,2-DCE), and vinyl chloride (VC) at select wells are provided in Appendices B and C, respectively, which are inclusive of data collected to date for these respective monitoring well locations. Trend graphs for concentrations of IB parameters are provided in Appendix D. Plume contours for TCE in fill, TCE in saprolite/bedrock, 1,2-DCE in fill, 1,2-DCE in saprolite/bedrock, VC in fill, and VC in saprolite/bedrock are shown in Figures 5A through 5F, respectively. The laboratory analytical reports for the October 2013 sampling events are provided in Appendix E.

The cVOC concentrations for October 2013 are, with a few exceptions which are discussed below, generally lower than or comparable to the previous groundwater sampling rounds. The data collected during this reporting period have been utilized to assess trends, especially post GWCTS deactivation, as outlined below.

cVOC Temporal Trend

GZA graphed historical concentrations and molarities of TCE, 1,2-DCE, and VC over time for twenty-four monitoring wells that have been routinely sampled during the recent and current reporting periods as shown in Appendices B and C, respectively. Monitoring wells OW-307, OW-401, OW-402U, OW-402L, OW-402R, and OW-403L have been included in the trend figures for this reporting period but were not sampled consistently in the past. These trend figures were included to enhance the analysis of cVOC concentrations at these locations. In general, TCE concentrations have exhibited a downward temporal trend consistent with IB.

[5] For wells that have been sampled on a semi-annual basis since baseline sampling, seven rounds of sampling starting with the baseline sampling event are shown in the tables. For the remaining wells, the four most recent sampling rounds, including the October 2013 sampling event, are shown.

Given that one mole of TCE yields one mole of 1,2-DCE via a reductive dechlorination pathway, comparisons using mass per volume measurements are biased by the mass difference between the two chemical compounds due to the replacement of the heavier chlorine atom with a lighter hydrogen atom (*i.e.*, while one mole of TCE yields one mole of 1,2-DCE, one gram of TCE yields less than one gram of 1,2-DCE via dechlorination). To normalize the data for the purpose of evaluating the TCE to 1,2-DCE transformation path, GZA converted the data for these compounds from mass per volume (concentrations) to their molar equivalencies.

The molarity trend analysis (Appendix C) illustrates the 1,2-DCE dominance at the Site, which is consistent with the reductive dechlorination of TCE. All but five of the wells (GZ-504R, OW-304L, GZ-506R, WB-4L, and OW-304R) reflect a greater molarity of 1,2-DCE than of TCE, most with a substantial difference. OW-304L and OW-304R show the TCE molarity approaching the 1,2-DCE molarity; however, GZ-504R, GZ-506R, and WB-4L show an increase in the difference between the higher TCE molarity and the lower 1,2-DCE molarity, possibly reflecting the dissolution of source mass into groundwater. These wells will continue to be monitored in subsequent sampling rounds. Table 5 shows the proposed wells to be sampled during the next sampling event scheduled for April 2014. Because there has been no known release of 1,2-DCE on Site, the most plausible explanation for the 1,2-DCE dominance at the Site is that biodegradation is occurring via a reductive dechlorination pathway[6], converting TCE to 1,2-DCE and liberating a chloride anion. Significantly, while TCE is generally only biodegradable under anaerobic conditions, 1,2-DCE is biodegradable under both aerobic and anaerobic conditions. As a result, it is possible to have decreasing molarity of 1,2-DCE while TCE is concurrently degrading via reductive dechlorination and not reflect 1,2-DCE dominance.

Six monitoring wells (GZ-504R, GZ-506R, OW-307, GZ-505R, WB-4L, and WB-2L[7]) that have not exhibited a general downward temporal trend are discussed below:

- The concentration of TCE at GZ-506R, while relatively low, has increased from a low of 0.87 parts per billion (ppb) in November 2005 to 94 ppb in October 2013. The concentration of TCE at GZ-506R has decreased from 220 ppb in the April 2013 sampling event. The graph is characterized by two peaks prior to the GWTS shutdown, one between approximately 2001 and 2003 (up to approximately 40 ppb) and the second between approximately 2006 and 2009 (peak of approximately 80 ppb)[8].
- The concentration of TCE at OW-307 has increased from a low of 31 ppb in October 2010 to 480 ppb in the October 2013 sampling event. TCE

[6] There is also a co-metabolic pathway; however, that pathway is typically not a significant natural attenuation mechanism.

[7] Additionally, saprolite well WB-3L is not included in the trend figures, but exhibited an elevated TCE concentration during the October 2012 and April 2013 sampling events when compared to the non-detect concentrations historically exhibited at WB-3L.

[8] The two peaks described likely reflect variations in the operation of the multiple groundwater extraction wells over time.

concentrations have increased since GWCTS shutdown on November 1, 2010; however, the current TCE value of 480 ppb is lower than measured during the 2012 sampling rounds but higher than measured during April 2013.

- Historically, the TCE concentrations at GZ-504R, GZ-505R, and WB-4L were consistently non-detect or below the Puerto Rico Water Quality Standard (PRWQS) of 5.0 ppb. However, the October 2012 sampling event, the first for these three wells since baseline sampling (June 2010), yielded TCE concentrations of 1.5 ppb, 61 ppb, and 2.1 ppb, respectively. TCE was reported at concentrations of 4.6 ppb, 68 ppb, and 12 ppb, respectively, during the April 2013 sampling event and at 6.5 ppb, 59 ppb, and 27 ppb, respectively, during the October 2013 sampling event. These wells will continue be sampled semi-annually.
- Consistent with GZ-504R, GZ-505R, and WB-4L, the TCE concentration at WB-2L had also generally been non-detect prior to GWCTS shutdown. After shutdown, TCE concentrations in groundwater samples from this well increased to 29 ppb, but then decreased back to below the laboratory reporting limit in the October 2012 sampling event. The reported TCE concentration at WB-2L increased to 17 ppb in the April 2013 sampling event and 19 ppb in October 2013.

Biodegradation Indicator Trend

The October 2013 biodegradation indicator data provide a snapshot of the Site conditions after about three years without groundwater extraction. As shown on Figure 3, the groundwater elevations at the Site appear to have achieved non-pumping, steady-state conditions.

The October 2013 data set for these indicator parameters was added to the temporal trend figures for each hydrogeological unit (fill/alluvium, saprolite, and bedrock - see Appendix D). There is no clear trend for any of the parameters on a Site-wide basis. However, several wells do show increasing dissolved iron concentrations, decreasing sulfate concentrations, increasing methane concentrations, detections of ethane and ethene, increasing chloride concentrations, decreasing nitrate concentrations, decreasing DO concentrations, decreasing ORP, or favorable pH, indicating increasingly more favorable conditions for anaerobic cVOC biodegradation via a reductive dechlorination pathway in the vicinities of those wells.

OW-307 has favorable pH; low DO; low ORP; detections of methane, ethane, and ethene; favorable sulfate; and increasing dissolved iron. All of the bedrock wells have favorably low DO concentrations. ORP levels generally increased from the April 2013 sampling event. Thirteen of the wells had favorable ORP below 50 mV during the October 2013 sampling round.

Summary

In general, the data collected to date, specifically the cVOC temporal trends discussed above, are consistent with the occurrence of IB via a reductive dechlorination pathway. Importantly, these data provide primary lines of evidence for cVOC biodegradation at the site.

7.4 DEVIATIONS FROM QAPP REVISION 3

QAPP Revision 3 was followed with some minor exceptions:

- We have been able to meet the relatively stringent holding time for nitrate during the past four sampling rounds. We therefore plan to continue to analyze nitrate at the laboratory instead of in the field given the greater reliability of the nitrate laboratory analysis.
- Field blanks were collected daily per EQB's recommendation.
- The In-Situ SmarTroll, equipped with an optical DO sensor that yields more accurate DO readings, was used instead of the YSI 600 specified in the QAPP as the multi-parameter water quality indicator.
- Because a non-dedicated submersible well pump (Redi-Flo 2 Grundfos) was used on October 31, 2013, an equipment blank was collected that day. The pump was decontaminated before and after deployment in each well by washing with an Alconox and water solution for five minutes followed by rinsing it using distilled water for five minutes.

7.5 DATA VALIDATION

In accordance with Revision 3 of the QAPP, select groundwater analytical data (cVOCs) were certified by a Puerto Rico-certified chemist and were validated by a GZA chemist. GZA performed the data validation in accordance with the EPA Region II Data Validation Standard Operating Procedures (SOPs) (located on the EPA Region II webpage at *http://www.epa.gov/region02/qa/documents.htm*). The criteria for accepting, rejecting, or qualifying data are included in these SOPs. The IB results do not require certification of validation based on the QAPP. Only the target cVOCs were reviewed as part of data validation. Overall, the quality assurance/quality control (QA/QC) results met the QAPP limits, and no data were rejected. Any analytical deficiencies are discussed in Appendix F.

7.6 CONCLUSIONS

As described in more detail in Sections 7.1 and 7.3 above, the groundwater appears to generally flow north-west across the eastern portion of Site and then mainly north-westerly from the western portions of the Site to the adjacent property owned by PREPA.

Quarterly groundwater gauging and data evaluation will continue to be conducted over the next reporting period.

Consistent with previous observations, the biodegradation indicators yield data which support the conclusion that cVOC biodegradation is occurring at the Site. The majority of wells sampled for cVOCs during this reporting period show lower or comparable TCE concentrations relative to previous results. Additionally, certain other indicator parameters are consistent with the occurrence of IB at the site via a reductive dechlorination pathway.

Due to the increasing TCE concentrations in a few wells on-Site and in accordance with the contingency plan of the IB Work Plan, HP is proposing installation of a well couplet (saprolite and bedrock) to the west of GZ-513R on PR-360, a well couplet (saprolite and bedrock) to the north of GZ-507R on the municipal road, and a bedrock monitoring well in the vicinity of abandoned well W-6. These wells will enhance the plume data for the Site. In addition, HP is evaluating the implementation of enhanced reductive dechlorination (ERD) programs at the Site. An ERD program may be effective in producing more robust dechlorination in portions of the Site.

8.0 PLANNED ACTIVITIES FOR NEXT REPORTING PERIOD

The planned activities for the next reporting period (first quarter (January 2014) through second quarter (June 2014)) are summarized below.

8.1 PUERTO RICO INDUSTRIAL DEVELOPMENT COMPANY / EQB / PRASA ACTION ITEMS

Actions items to be completed by EQB, PRIDCO, and PRASA are summarized below.

8.1.1 PRIDCO Action Items

None.

8.1.2 EQB Action Items

None.

8.1.3 PRASA Action Items

None.

8.2 GWCTS ASSOCIATED ACTION ITEMS

The action items associated with the operation, maintenance, and monitoring of the GWCTS are summarized below. Due to the extent of damage caused by vandals and the costs and time to complete repairs and security measures to deter further vandalism, repairs to the system will not be completed at this time. Some of these action items (especially those in sections 8.2.1 through 8.2.3) cannot be accomplished without the needed system repairs.

8.2.1 Extraction Wells

- Extraction wells W-1, W-7, and W-8 were decommissioned in accordance with the DNER permit O-FA-PSP07-SJ-00099-28052013 issued on October 8, 2013. Well decommissioning activities occurred November 1 through 12, 2013. The DNER closure report is included as Appendix G.

8.2.2 Groundwater Treatment System

- The mechanical equipment covers (canvas tarpaulins, etc.) will be inspected monthly and re-secured as needed. The mechanical parts and components will be greased and oiled as needed;
- While not currently possible due to vandalism, the motors of the transfer pumps (P-1 and P-2) and backwash pumps (P-3 and P-4) should be activated monthly for approximately one hour; and
- The mechanical and electrical systems associated with the GWCTS will be inspected monthly.

8.2.3 Telemetry System

- While not currently possible due to vandalism, the operation of air conditioners for the control room and PLC panel should be maintained if the telemetry system and the GWCTS are reactivated.

8.2.4 Monitoring Wells

- Selected monitoring wells will be sampled for cVOCs, dissolved iron, sulfate, methane, ethane, ethene, TOC, chloride, nitrate, and the field parameters DO, ORP, and pH using low-flow methodology during the next semi-annual monitoring round in April 2014 as shown in Table 5;
- Groundwater elevations will continue to be measured quarterly in January and April 2014;
- Damaged well road boxes will be repaired as required; and

TABLES

TABLE 1
SUMMARY OF GROUNDWATER TESTING RESULTS - VOCS
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Trichloroethene (TCE)	Vinyl chloride	cis-1,2 Dichloroethene (DCE)	trans-1,2 Dichloroethylene	Tetrachloroethene (PCE)	Chloroethane	2-Chloroethylvinyl ether	Chloroform	1,1- Dichloroethane (DCA)	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloropropane	1,1,1-Trichloroethane (TCA)	Trichlorofluoromethane	Chloromethane
Fill and Alluvium Wells																
Puerto Rico Water Quality Standards or *MCLs*		5.0	0.25	*70*	100	5.0	NE	NE	57	NE	3.8	7.0	5.0	200	NE	NE
GZ-501U	**10/27/2010**	<1.0	<1.0	**1.2**	<1.0	<1.0	<1.0	--	**0.29 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/18/2011	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	10/25/2011	<1.0	<1.0	**0.39 J**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/11/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/18/2012	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ
GZ-503U	**10/27/2010**	<1.0	<1.0	**8.3**	<1.0	<1.0	<1.0	--	**0.27 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/18/2011	**0.54 J**	<1.0	**22.0**	**0.42 J**	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/24/2011	**0.28 J**	<1.0	**9.4**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/12/2012	<1.0	<1.0	**13**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/17/2012	<1.0	<1.0 U	**8.3**	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ
	4/24/2013	**0.26 J**	<1.0	**8.9**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/30/2013	**0.23 J**	<1.0	**16**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GZ-504U	**10/26/2010**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	4/18/2011	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	10/24/2011	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	4/12/2012	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	10/15/2012	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	4/23/2013	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	10/29/2013	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
GZ-506U	**10/27/2010**	**0.26 J**	<1.0	**12**	<1.0	<1.0	<1.0	--	**0.42 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/19/2011	**0.77 J**	<1.0	**0.29 J**	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/24/2011	**3.3**	<1.0	**3.6**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0 UJ
	4/10/2012	**2.5**	<1.0	**2.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/16/2012	**2.9**	<1.0	**1.0 J**	<1.0 UJ	<1.0	<1.0	--	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	4/24/2013	**2.7**	<1.0	**1.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/30/2013	**1.8**	<1.0	**0.48 J**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GZ-511U	**3/12/2003**	**67 E**	**1.8**	**36**	**2.1**	**0.36 J**	**0.71 J**	**8.9 J**	**2.5**	**0.74 J**	**0.53 J**	**1.5**	**7.1**	**1.5**	**0.24 J**	<1.0
	6/3/2003	**65**	**2.0**	**37**	**1.0**	<1.0	<1.0	--	**0.59 J**	**0.33 J**	<1.0	**0.99 J**	<1.0	<1.0	<1.0	<1.0
	10/28/2010	**95**	**0.87 J**	**69**	**1.2**	<1.0	<1.0	--	<1.0	<1.0	<1.0	**0.31 J**	<1.0	<1.0	<1.0	<1.0
	10/17/2012	**30**	**0.49 J**	**20**	**0.29 J**	<1.0	<1.0 UJ	--	**0.33 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ
GZ-515U	**6/24/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	4/20/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/20/2011 DUP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/25/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/11/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/17/2012	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ
	4/24/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/29/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GZ-519U	**10/29/2010**	**99**	<1.0	**52**	**1.9**	<1.0	<1.0	--	**6.2**	<1.0	<1.0	**1.4**	<1.0	<1.0	<1.0	<1.0
	4/20/2011	**57**	<1.0	**23**	**0.83 J**	<1.0	<1.0	--	**5.9**	<1.0	<1.0	**1.1**	<1.0	<1.0	<1.0	<1.0
	10/26/2011	**110 J**	**0.45 J**	**65 J**	**2.3 J**	<1.0	<1.0	--	**4.5 J**	<1.0	<1.0	**2.0 J**	<1.0	<1.0	<1.0	<1.0 UJ
	4/10/2012	**57**	<1.0	**26**	**0.83 J**	<1.0	<1.0	--	**3.5**	<1.0	<1.0	**0.79 J**	<1.0	<1.0	<1.0	<1.0
	10/15/2012	**88**	**0.38 J**	**60 J**	**2.0 J**	<1.0	<1.0	--	**4.6 J**	**0.42 J**	<1.0	**1.6 J**	<1.0	<1.0	<1.0 UJ	<1.0
	4/23/2013	**87**	<1.0	**33**	**0.96 J**	<1.0	<1.0 UJ	--	**4.0**	**0.23 J**	<1.0	**1.5**	<1.0	<1.0	<1.0 UJ	<1.0
	10/30/2013	**96**	**0.49 J**	**53**	**1.7**	<1.0	<1.0	--	**3.5**	**0.31 J**	<1.0	**1.4**	<1.0	<1.0	<1.0	<1.0 UJ
OW-101	**6/25/2010**	**1,100**	<100	**760**	**210**	<100	<100	--	<100	<100	<100	<100	<100	<100	<100 UJ	<100
	4/21/2011	**990**	**2.6**	**830**	**89**	<1.0	<1.0	--	<1.0	**1.0**	<1.0	**20 J**	<1.0	<1.0	<1.0	<1.0 UJ
	10/27/2011	**830**	<20	**600**	**160**	<20	<20	--	<20	<20	<20	**15 J**	<20	<20	<20	<20
	4/10/2012	**700**	<20	**550**	**88**	<20	<20	--	<20	<20	<20	**8.2 J**	<20	<20	<20	<20
	10/18/2012	**36**	<20	**950**	**120**	<20	<20	--	<20	<20	<20	**9.2 J**	<20	<20	<20	<20
	4/23/2013	**1,100**	<20 UJ	**920**	**56**	<20	<20	--	<20	<20	<20	**11 J**	<20	<20	<20 UJ	<20
	10/30/2013	**980 J**	**11 J**	**1,300 J**	**230**	<20	<20	--	<20	<20	<20	**17 J**	<20	<20	<20	<20 UJ
OW-105	**10/27/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**0.30 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/27/2010 DUP	**0.34 J**	<1.0	<1.0	<1.0	<1.0	<1.0	--	**0.29 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.47 J**
	4/20/2011	**0.60 J**	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/24/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/10/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/17/2012	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ

TABLE 1
SUMMARY OF GROUNDWATER TESTING RESULTS - VOCS
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Trichloroethene (TCE)	Vinyl chloride	cis-1,2 Dichloroethene (DCE)	trans-1,2 Dichloroethylene	Tetrachloroethene (PCE)	Chloroethane	2-Chloroethylvinyl ether	Chloroform	1,1- Dichloroethane (DCA)	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloropropane	1,1,1-Trichloroethane (TCA)	Trichlorofluoromethane	Chloromethane
Fill and Alluvium Wells																
Puerto Rico Water Quality Standards or *MCLs*		5.0	0.25	*70*	100	5.0	NE	NE	57	NE	3.8	7.0	5.0	200	NE	NE
OW-304U	**10/26/2010**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	4/19/2011	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	10/25/2011	<1.0	<1.0	**0.68 J**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/12/2012	**0.35 J**	<1.0	**1.2**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/17/2012	**0.92 J**	<1.0 UJ	**1.4**	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ
	4/23/2013	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
	10/30/2013	**0.32 J**	**0.32 J**	**1.5**	<1.0	<1.0	**0.79 J**	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ
OW-305I	**6/25/2010**	**150**	**120**	**290**	**10**	<10	<10	--	<10	<10	<10	<10	<10	<10	<10 UJ	<10
	4/19/2011	**230**	**240**	**420**	**17**	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10
	10/26/2011	**48**	**95**	**220**	**14**	<5.0	<5.0 UJ	--	<5.0	<5.0	<5.0	**1.9 J**	<5.0	<5.0	<5.0 UJ	<5.0 UJ
	4/11/2012	**100**	**65**	**280**	**12**	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10
	10/17/2012	**27**	**52 J**	**200**	**9.2**	<5.0	<5.0 UJ	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 UJ
	4/23/2013	**220**	**100 J**	**530**	**17**	<1.0	<1.0	--	<1.0	**0.46 J**	<1.0	**2.0**	<1.0	<1.0	<1.0 UJ	<1.0
	10/29/2013	**54 J**	**91 J**	**280**	**14**	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	10/29/2013 DUP	**39 J**	**63 J**	**190 J**	**9.8**	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
OW-305U	**10/29/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/20/2011	<1.0	**2.0**	<1.0	<1.0	<1.0	**1.2**	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/26/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/12/2012	**0.46 J**	**2.0**	**1.2**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/18/2012	**4.1**	<1.0 UJ	**3.9**	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ
	4/24/2013	**0.17 J**	<1.0	**0.23 J**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/29/2013	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
OW-402U	**10/29/2010**	**22**	<1.0	**17**	**0.37 J**	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/20/2011	**12**	<1.0	**9.5**	**0.40 J**	<1.0	<1.0	--	**0.98 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/25/2011	**13**	<1.0	**5.2**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	**0.27 J**	<1.0	<1.0	<1.0
	4/10/2012	**24**	<1.0	**13**	**0.39 J**	<1.0	<1.0	--	**0.23 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/15/2012	**15**	<1.0	**6.7 J**	<1.0 UJ	<1.0	<1.0	--	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	4/23/2013	**29**	<1.0	**11**	**0.42 J**	<1.0	<1.0 UJ	--	**0.43 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	10/31/2013	**14**	<1.0	**31**	**0.89 J**	<1.0	<1.0	--	**0.16 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
OW-404U	**3/18/2009**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	9/9/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	10/15/2012	<1.0	<1.0	<1.0 UJ	<1.0 UJ	<1.0	<1.0	--	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	10/15/2012 DUP	<1.0	<1.0	<1.0 UJ	<1.0 UJ	<1.0	<1.0	--	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
WB-1U[3,4]	**6/25/2010**	**1.1**	<1.0	**0.76 J**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	4/18/2011	**1.0**	**0.30 J**	**2.0**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/19/2011	**0.92 J**	<1.0	**1.9**	<1.0	<1.0	<1.0 UJ	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/25/2011	**2.9**	<1.0	**1.9**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/12/2012	**4.2**	<1.0	**4.9**	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/16/2012	**3.3**	<1.0	**2.6 J**	<1.0 UJ	<1.0	<1.0	--	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
	6/4/2013	**4.1**	<2.0 UJ	**7.0**	<2.0	<2.0	<2.0 UJ	--	<2.0	<2.0	<2.0	<2.0	<2.0 UJ	<2.0	<2.0 UJ	<2.0 UJ
	10/29/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
WB-2U	**9/3/2003**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/8/2004	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/26/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	**0.27 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/15/2012	<1.0	<1.0	<1.0 UJ	<1.0 UJ	<1.0	<1.0	--	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0

Notes:
1. All units are micrograms per liter (ug/L).
2. Wells OW-304U, GZ-501U, and GZ-504U were not sampled in April 2011 because they were dry. GZ-504U was not sampled in October 2011 or April 2012 because it was dry.
3 . On April 18, 2011, only one vial could be collected for VOCs at WB-1U before it went dry. The lab inadvertantly ran the additional vials collected for dilutions on April 19, 2011 as an additional sample.
4. Inadvertantly, no sample was collected from WB-1U during the April 2013 sampling event. The sample was, therefore, collected on June 4, 2013.
5. **Bold** values reflect detected analytes.
6. Yellow highlighting indicates the reference concentration exceeds the applicable Puerto Rico Water Quality Standard (PRWQS) or USEPA Maximum Contaminant Level (MCL) if no PRWQS is available. MCLs are indicated by *italics* .
7. "--" = analyte not tested for; "J" = the concentration reported was at or below the reporting limit; "B" = the analyte in question was detected in the associated laboratory blank; "UJ" = the analyte was detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample; "E" = the reported value exceeds the calibration range; "<" = the compound was not detected above the method quantification limit shown; "NS" = no sample was taken because the well was dry or inaccessible; "NE" = no groundwater quality standard established; "DUP" = duplicate sample.

TABLE 1
SUMMARY OF GROUNDWATER TESTING RESULTS - VOCS
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Trichloroethene (TCE)	Vinyl chloride	cis-1,2 Dichloroethene (DCE)	trans-1,2 Dichloroethylene	Tetrachloroethene (PCE)	Bromoform	Chloroform	Dichlorodifluoromethane	1,1- Dichloroethane (DCA)	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloropropane	1,2-Dichlorobenzene	1,1,2-Trichloroethane	Chloromethane	MTBE
Saprolite Wells																	
Puerto Rico Water Quality Standards or		5.0	0.25	*70*	100	5.0	43	57	NE	NE	3.8	7.0	5.0	420	5.0	NE	NE
DEC-204O	**10/27/2010**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	4/20/2011	**0.98 J**	<1.0	<1.0	<1.0	**3.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2011	**0.31 J**	<1.0	<1.0	<1.0	**2.6**	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/12/2012	<1.0	<1.0	<1.0	<1.0	**1.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/16/2012	**0.48 J**	<1.0	<1.0 UJ	<1.0 UJ	**2.2**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/23/2013	**0.44 J**	<1.0	<1.0	<1.0	**1.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/30/2013	**0.46 J**	<1.0	<1.0	<1.0	**1.9**	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
GZ-501L	**10/27/2010**	**8.9**	**0.67 J**	**24**	**0.36 J**	<1.0	<1.0	**0.28 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2010 DUP	**8.0**	**0.70 J**	**21**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.30 J**	--
	4/18/2011	**9.4**	**0.86 J**	**23**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/18/2011 DUP	**9.3**	**1.0**	**23**	**0.25 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/24/2011	**4.7**	**0.51 J**	**12**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	**0.22 J**	<1.0	<1.0 UJ	--
	4/11/2012	**3.8**	<1.0	**7.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.21 J**	<1.0	<1.0	--
	10/17/2012	**6.7**	<1.0 UJ	**5.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.20 J**	<1.0	<1.0 UJ	--
	4/25/2013	**12**	**0.26 J**	**7.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.16 J**	<1.0	<1.0 UJ	--
	10/29/2013	**21**	**0.36 J**	**11**	<1.0	**0.40 J**	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.27 J**	<1.0	<1.0	<1.0	<1.0	--
GZ-502L	**10/28/2010**	**60**	**1.5**	**92**	**1.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.79 J**	<1.0	<1.0	<1.0	<1.0	--
	4/21/2011	**46**	**1.3 J**	**70**	**1.1 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.66 J**	<1.0	<1.0	<1.0	<2.0 UJ	--
	10/26/2011	**26**	**0.96 J**	**48**	**0.68 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.43 J**	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/11/2012	**14**	**0.57 J**	**28**	**0.36 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/18/2012	**11**	**0.51 J**	**19**	**0.31 J**	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/24/2013	**9.2**	**0.55 J**	**15**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.16 J**	<1.0	<1.0	--
	10/29/2013	**10**	**0.61 J**	**14**	**0.30 J**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.39 J**	<1.0	<1.0	<1.0	<1.0	--
GZ-503L	**10/29/2010**	**12**	**0.73 J**	**15**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/20/2011	**13**	**0.81 J**	**13**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2011	**22**	**0.93 J**	**24**	**0.34 J**	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	**0.27 J**	<1.0	<1.0	<1.0	<1.0	--
	4/11/2012	**26**	**0.93 J**	**30**	**0.41 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.31 J**	<1.0	<1.0	<1.0	<1.0	--
	10/17/2012	**26**	**1.5 J**	**27**	**0.61 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.27 J**	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/24/2013	**51**	**2.5**	**45**	**1.7**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.60 J**	<1.0	<1.0	<1.0	<1.0	--
	10/29/2013	**58**	**4.7**	**55**	**2.2**	**0.35 J**	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.44 J**	<1.0	<1.0	<1.0	<1.0	--
GZ-504L	**6/3/2003**	<1.0	<1.0	**1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2010	**0.92 J**	<1.0	**2.8**	<1.0	<1.0	<1.0	**0.32 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.39 J**	--
	10/15/2012	**3.1**	<1.0	**20 J**	<1.0 UJ	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/24/2013	**7.1**	**0.26 J**	**41**	**0.44 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.24 J**	<1.0	<1.0	<1.0	<1.0	--
	10/30/2013	**5.3**	<1.0	**32**	**0.30 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
GZ-505L	**6/28/2010**	<1.0	**1.2**	**16**	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/18/2011	<1.0	**1.1**	**10**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
	10/24/2011	<1.0	**1.2**	**6.5**	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/11/2012	**0.27 J**	**0.50 J**	**6.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/17/2012	<1.0	**0.47 J**	**3.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/24/2013	**0.98 J**	**0.48 J**	**5.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/29/2013	**0.76 J**	**0.62 J**	**4.5**	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
GZ-601L	**4/12/2012**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/16/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/25/2013	<1.0	<1.0 UJ	**0.22 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	**2.3**
	10/30/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
OW-1	**10/27/2010**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	4/19/2011	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	10/24/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/11/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/16/2012	<1.0	<1.0	<1.0 UJ	<1.0 UJ	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
OW-101L	**10/27/2010**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	4/20/2011	**37**	**0.95 J**	**39**	**0.66 J**	**0.47 J**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.25 J**	<1.0	<1.0	<1.0	<1.0	--
	10/26/2011	**11**	**27**	**82**	**1.3 J**	**1.3 J**	<2.0	<2.0	<2.0 UJ	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--
	4/10/2012	**4.0**	**19**	**80**	**1.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.38 J**	<1.0	<1.0	<1.0	<1.0	--
	10/18/2012	**2.8**	**11 J**	**92**	**1.1**	<1.0	<1.0	<1.0	<1.0 UJ	**0.31 J**	<1.0	**0.60 J**	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/23/2013	**5.8**	**3.8**	**140**	**1.5**	<1.0	<1.0	<1.0	<1.0	**0.34 J**	<1.0	**0.76 J**	<1.0	<1.0	<1.0	<1.0	--
	10/30/2013	<1.0	**2.4**	**81**	**0.98 J**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.58 J**	<1.0	<1.0	<1.0	<1.0	--
OW-102	**3/11/2003**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	6/3/2003	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/28/2010	<1.0	<1.0	**7.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/17/2012	**3.8**	<1.0 UJ	**3.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/23/2013	**2.1**	<1.0 UJ	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/31/2013	**1.0**	<1.0	**0.43 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
OW-301	**6/24/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/21/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/26/2011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/11/2012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/16/2012	<1.0	<1.0	<1.0 UJ	<1.0 UJ	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/25/2013	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
	10/30/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
OW-304L	**6/24/2010**	**5,700 J**	<200	**910 J**	<200	<200	<200	<200	<200 UJ	<200	<200	<200	<200	<200	<200	<200	--
	4/21/2011	**4,000**	**67**	**710**	**2.7**	**5.2**	<1.0	**0.64 J**	<1.0	**6.3**	**9.1**	**15 J**	<1.0	<1.0	**1.0**	<1.0 UJ	--
	10/27/2011	**2,000**	**33 J**	**530**	<50	<50	<50	<50	<50 UJ	<50	<50	<50	<50	<50	<50	<50	--
	10/27/11 DUP	**1,800**	**29 J**	**520**	<50	<50	<50	<50	<50 UJ	<50	<50	<50	<50	<50	<50	<50	--
	4/12/2012	**1,500**	**15 J**	**530**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	--
	10/16/2012	**1,200**	**12 J**	**410**	<20 UJ	<20	<20	<20	<20	<20	<20	**5.1 J**	<20	<20	<20	<20	--
	4/25/2013	**1,700**	<50 UJ	**530**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50 UJ	--
	10/31/2013	**1,200**	**15**	**550**	**1.8**	**1.3**	<1.0	**0.17 J**	<1.0	**5.8**	<1.0	**5.8**	<1.0	<1.0	<1.0	<1.0	--

TABLE 1
SUMMARY OF GROUNDWATER TESTING RESULTS - VOCS
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Trichloroethene (TCE)	Vinyl chloride	cis-1,2 Dichloroethene (DCE)	trans-1,2 Dichloroethylene	Tetrachloroethene (PCE)	Bromoform	Chloroform	Dichlorodifluoromethane	1,1- Dichloroethane (DCA)	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloropropane	1,2-Dichlorobenzene	1,1,2-Trichloroethane	Chloromethane	MTBE
Saprolite Wells																	
Puerto Rico Water Quality Standards or		5.0	0.25	*70*	100	5.0	43	57	NE	NE	3.8	7.0	5.0	420	5.0	NE	NE
OW-307	**10/29/2010**	**31**	<1.0	**49**	**0.57 J**	<1.0	<1.0	<1.0	**0.66 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/21/2011	**100**	**22**	**170**	**2.2**	<1.0	<1.0	<1.0	**0.63 J**	<1.0	<1.0	**0.27 J**	<1.0	<1.0	<1.0	<1.0 UJ	--
	10/25/2011	**380**	**4.4 J**	**260**	**3.9 J**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	--
	4/10/2012	**640**	**6.1 J**	**550**	**6.5 J**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	--
	4/10/2012 DUP	**640**	**7.6 J**	**560**	**6.5 J**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	--
	10/18/2012	**710**	**4.4 J**	**540**	**9.2 J**	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10	<10 UJ	--
	10/18/2012 DUP	**730**	**3.5 J**	**540**	**8.7 J**	<10	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10	<10 UJ	--
	4/23/2013	**300**	**9.3 J**	**280**	**3.6**	<1.0	<1.0	<1.0	<1.0 UJ	**0.41 J**	<1.0	**0.64 J**	<1.0	<1.0	<1.0	<1.0	--
	4/23/2013 DUP	**360**	**9.7 J**	**340**	**3.0**	<1.0	<1.0	<1.0	<1.0 UJ	**0.38 J**	<1.0	**0.73 J**	<1.0	<1.0	<1.0	<1.0	--
	10/31/2013	**480**	**12**	**540**	**6.6 J**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	--
OW-401	**3/13/2003**	**24**	<1.0	**15**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	6/3/2003	**10**	**0.58 J**	**10**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.49 J**	**1.2**	<1.0	<1.0	<1.0	--
	10/28/2010	**29**	**1.3**	**53**	**0.79 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.38 J**	<1.0	<1.0	<1.0	<1.0	--
	10/18/2012	**4.1**	<1.0 UJ	**8.2**	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
OW-402L	**10/29/2010**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	4/20/2011	**36**	<1.0	**29**	**0.40 J**	**2.6**	<1.0	<1.0	**0.69 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/25/2011	**48**	<1.0	**43**	**0.55 J**	**6.7**	<1.0	<1.0	**2.1**	<1.0	<1.0	**0.36 J**	<1.0	<1.0	<1.0	<1.0	--
	4/10/2012	**54**	**0.76 J**	**80**	**0.94 J**	**12**	<1.0	**0.24 J**	**1.3**	<1.0	<1.0	**0.79 J**	<1.0	<1.0	<1.0	<1.0	--
	10/15/2012	**42**	**0.95 J**	**91 J**	**1.3 J**	**12**	<1.0	**0.26 J**	**1.6**	**0.52 J**	<1.0	**0.88 J**	<1.0	<1.0	<1.0	<1.0	--
	4/23/2013	**36**	**0.71 J**	**80**	**1.1**	**11**	<1.0	**0.25 J**	**1.2**	**0.50 J**	<1.0	**0.77 J**	<1.0	<1.0	<1.0	<1.0	--
	10/30/2013	**33**	**0.81 J**	*77*	**1.3**	**10**	<1.0	**0.28 J**	**1.2**	<1.0	<1.0	**0.83 J**	<1.0	<1.0	<1.0	<1.0	--
OW-403L	**10/29/2010**	**1,400**	<100	**89 J**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	--
	4/21/2011	**520**	<10	**64**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	--
	10/26/2011	**370 J**	<10	**150 J**	<10	**2.6 J**	<10 UJ	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	--
	4/10/2012	**210**	<10	**96**	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	--
	10/16/2012	**140**	**1.7 J**	**74**	**1.1 J**	**1.2 J**	<2.0	<2.0	**3.6**	<2.0	<2.0	**0.60 J**	<2.0	<2.0	<2.0	<2.0	--
	10/16/2012 DUP	**150**	**1.5 J**	**73**	**1.2 J**	**1.4 J**	<2.0	<2.0	**1.7 J**	**0.57 J**	<2.0	**0.56 J**	<2.0	<2.0	<2.0	<2.0	--
	4/23/2013	**120**	**2.1**	**71**	**0.87 J**	**1.1**	<1.0	<1.0	**4.4**	**0.76 J**	<1.0	**0.62 J**	<1.0	<1.0	<1.0	<1.0	--
	10/30/2013	**85**	**3.6**	**55**	**0.88 J**	**0.98 J**	<1.0 UJ	<1.0	**5.9**	**0.81 J**	<1.0	**0.64 J**	<1.0	<1.0	<1.0	<1.0	--
	10/30/2013 DUP	**89 J**	**3.6 J**	**58 J**	**0.84 J**	**1.1**	<1.0 UJ	<1.0	**5.9**	**0.87 J**	<1.0	**0.73 J**	<1.0	<1.0	<1.0	<1.0	--
OW-404L	**3/18/2009**	**4.5 B**	**0.23 J**	**15**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.17 J**	<1.0	<1.0	<1.0	<1.0	--
	9/9/2009	**2.9**	<1.0	**7.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	6/25/2010	**0.92 J**	<1.0	**3.1**	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/15/2012	<1.0	<1.0	<1.0 UJ	<1.0 UJ	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
OW-405	**9/9/2009**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	6/24/2010	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	10/28/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/17/2012	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	**0.29 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
OW-407	**3/11/2003**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	6/3/2003	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**4.8 B**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/16/2012	<1.0	<1.0	<1.0 UJ	<1.0 UJ	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
OW-408	**6/24/2010**	**10**	<1.0	**68**	**17**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.3**	<1.0	<1.0	<1.0	<1.0	--
	10/27/2010	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	10/16/2012	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	4/25/2013	**27**	**41 J**	**230**	**17**	<1.0	<1.0	**0.65 J**	<1.0	<1.0	<1.0	**0.88 J**	<1.0	<1.0	<1.0	<1.0 UJ	--
	10/30/2013	**1.0**	**3.1**	**75**	**19**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**1.9**	<1.0	<1.0	<1.0	<1.0	--
WB-1L	**10/29/2010**	**60**	<5.0	**110**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--
	4/18/2011	**56**	<1.0	**110**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/25/2011	**65**	<5.0	**79**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--
	4/12/2012	**80**	<5.0	**130**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--
	10/15/2012	**69**	<5.0	**110 J**	**1.5 J**	<5.0	<5.0	<5.0 UJ	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--
	4/24/2013	**73**	**0.57 J**	**120**	**1.2**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/29/2013	**81**	**0.60 J**	**120**	**1.5**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.55 J**	<1.0	<1.0	<1.0	<1.0	--
WB-2L	**6/28/2010**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/18/2011	**24**	**0.84 J**	**44**	**0.46 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.35 J**	<1.0	<1.0	<1.0	<1.0 UJ	--
	10/25/2011	**27**	**0.94 J**	**50**	**0.62 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.32 J**	<1.0	<1.0	<1.0	<1.0	--
	4/11/2012	**29**	**0.89 J**	**81**	**1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.42 J**	<1.0	<1.0	<1.0	<1.0	--
	10/15/2012	**0.97 J**	<1.0	**2.0 J**	<1.0 UJ	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	4/24/2013	**17**	**0.36 J**	**38**	**0.41 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.25 J**	<1.0	<1.0	<1.0	<1.0	--
	10/29/2013	**18**	**0.88 J**	**89**	**1.2**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.52 J**	<1.0	<1.0	<1.0	<1.0	--
WB-3L	**6/3/2003**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.37 JB**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/17/2012	**10**	**0.90 J**	**13**	**0.70 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/24/2013	**21**	**0.98 J**	**25**	**1.0**	**0.80 J**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.29 J**	<1.0	<1.0	<1.0	<1.0	--
	10/29/2013	**29**	**1.9**	**40**	**1.4**	**1.3**	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.37 J**	<1.0	<1.0	<1.0	<1.0	--
WB-4L	**9/9/2009**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	6/28/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/17/2012	**2.9**	<1.0 UJ	**1.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	--
	4/24/2013	**12**	**0.34 J**	**6.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/29/2013	**27**	**0.41 J**	**17**	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.30 J**	<1.0	<1.0	<1.0	<1.0	--

Notes:
1. All units are micrograms per liter (ug/L).
2. Wells OW-1 (in April 2011) and OW-408 (in June 2009, October 2010, and October 2012) were not sampled due to insufficient volume of water.
3. **Bold** values reflect detected analytes.
4. Yellow highlighting indicates the reference concentration exceeds the applicable Puerto Rico Water Quality Standard (PRWQS) or USEPA Maximum Contaminant Level (MCL) if no PRWQS is available. MCLs are indicated by *italics* .
5. "--" = analyte not tested for; "J" = the concentration reported was at or below the reporting limit; "B" = the analyte in question was detected in the associated laboratory blank; "UJ" = the analyte was detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample; "<" = the compound was not detected above the method quantification limit shown; "NS" = no sample was taken because the well was dry or inaccessible; "NE" = no groundwater quality standard established; "DUP" = duplicate sample.

TABLE 1
SUMMARY OF GROUNDWATER TESTING RESULTS - VOCS
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Trichloroethene (TCE)	Vinyl chloride	cis-1,2 Dichloroethene (DCE)	trans-1,2 Dichloroethylene	Tetrachloroethene (PCE)	Chloroform	Dichlorodifluoromethane	1,1- Dichloroethane (DCA)	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Methylene chloride	1,1,2-Trichloroethane	MTBE
Bedrock Wells																
Puerto Rico Water Quality Standards or *MCLs*		5.0	0.25	*70*	100	5.0	57	NE	NE	3.8	7.0	420	63	46	5.0	NE
BR-308	**9/9/2009**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	6/25/2010	**14**	**0.40 J**	**26**	*<1.0*	*<1.0*	*<1.0*	*<1.0 UJ*	*<1.0*	*<1.0*	**0.29 J**	*<1.0*	*<1.0*	*<5.0*	*<1.0*	--
	10/28/2010	**4.9**	**<1.0**	**10**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.25 J**	<1.0	<1.0	<5.0	<1.0	--
	10/18/2012	**4.5**	<1.0 UJ	**14**	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	**<1.0**	<1.0	<1.0	<5.0	<1.0	--
DEC-203R	**10/27/2010**	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	--
	4/19/2011	<1.0	<1.0	<1.0	<1.0	**0.46 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2011	**0.34 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	4/12/2012	**0.32 J**	<1.0	<1.0	<1.0	**0.28 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	10/16/2012	**0.48 J**	<1.0	<1.0	<1.0	**0.28 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
GZ-504R	**10/28/2010**	**1.9**	<1.0	**7.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	4/19/2011	**3.7**	**0.46 J**	**16**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/25/2011	**1.7**	<1.0	**5.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.54 J**	**0.23 J**	<5.0 UJ	<1.0	--
	10/25/11 DUP	**1.8**	<1.0	**5.7**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.55 J**	**0.27 J**	<5.0 UJ	<1.0	--
	4/11/2012	**1.5**	<1.0	**5.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.54 J**	**0.28 J**	<5.0	<1.0	--
	10/15/2012	**1.5**	<1.0	**3.3 J**	<1.0 UJ	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	**0.44 J**	**0.28 J**	<5.0	<1.0	--
	4/24/2013	**4.6**	<1.0	**4.7**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.39 J**	<1.0	<5.0	<1.0	--
	10/30/2013	**6.5**	<1.0	**3.5**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.21 J**	<1.0	<5.0	<1.0	--
GZ-505R	**9/9/2009**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	6/28/2010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	10/17/2012	**61**	<1.0	**43**	**0.55 J**	**0.32 J**	<1.0	<1.0	<1.0	<1.0	**0.48 J**	<1.0	<1.0	<5.0	<1.0	--
	4/24/2013	**68**	<1.0	**73**	**0.69 J**	**0.65 J**	<1.0	<1.0	<1.0	<1.0	**0.62 J**	<1.0	<1.0	<5.0	<1.0	--
	10/30/2013	**59**	<1.0	**87**	**0.80 J**	**0.58 J**	<1.0	<1.0	<1.0	<1.0	**0.75 J**	<1.0	<1.0	<5.0	<1.0	--
GZ-506R	**10/29/2010**	**1.5**	<1.0	**0.98 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	4/19/2011	**1.0**	<1.0	**5.1**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--
	10/27/2011	**26**	<1.0	**5.1**	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	4/12/2012	**88**	<1.0	**16**	<1.0	**0.26 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	10/16/2012	**130**	<5.0	**28 J**	<5.0 UJ	<5.0	<5.0 UJ	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	--
	4/25/2013	**220**	**0.29 J**	**56**	**0.91 J**	**1.3**	**0.42 J**	<10.0	**0.59 J**	<1.0	**0.36 J**	<1.0	<1.0	<5.0	<1.0	--
	10/31/2013	**94**	**0.24 J**	**56**	**0.88 J**	**0.68 J**	**0.31 J**	**0.96 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
GZ-601R	**4/12/2012**	**42**	**1.6**	**38**	**0.29 J**	<1.0	<1.0	<1.0	**0.84 J**	<1.0	**0.51 J**	<1.0	<1.0	<5.0	<1.0	**33**
	10/16/2012	**11**	**1.1**	**40**	**0.36 J**	<1.0	<1.0	<1.0 UJ	**0.85 J**	<1.0	**0.90 J**	<1.0	<1.0	<5.0	<1.0	**160 J**
	4/25/2013	**1.7**	**1.1 J**	**43**	**0.28 J**	<1.0	<1.0	<1.0	**0.83 J**	<1.0	**0.71 J**	<1.0	<1.0	<5.0	<1.0	**130**
	10/30/2013	**0.69 J**	**1.0**	**44 J**	**0.44 J**	<1.0	<1.0	<1.0	**0.82 J**	<1.0	**0.84 J**	<1.0	<1.0	<5.0	<1.0	--
OW-304R	**6/24/2010**	**1,300**	<100	**180**	<100	<100	<100	<100 UJ	<100	<100	<100	<100	<100	<500	<100	--
	6/24/2010 DUP	**1,100**	**33 J**	**160**	<100	<100	<100	<100 UJ	<100	<100	<100	<100	<100	<500	<100	--
	4/21/2011	**1,700**	**51**	**180**	**1.4**	**2.1**	**0.57 J**	**1.3**	<1.0	**1.3**	**3.2 J**	<1.0	<1.0	<1.0	**0.72 J**	--
	10/27/2011	**3,200**	<100	**290**	<100	<100	<100	<100 UJ	<100	<100	<100	<100	<100	<500	<100	--
	4/12/2012	**2,600**	<100	**300**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<500	<100	--
	4/12/2012 DUP	**2,600**	<100	**260**	<100	<100	<100	<100	<100	<100	<100	<100	<100	<500	<100	--
	10/16/2012	**1,400**	**64 J**	**190 J**	<100 UJ	<100	<100 UJ	<100	<100	<100	<100	<100	<100	**27 J**	<100	--
	4/25/2013	**1,200**	**41 J**	**130**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<250	<50	--
	4/25/2013 DUP	**1,200**	**53 J**	**150**	<50	<50	<50	<50	<50	<50	<50	<50	<50	<250	<50	--
	10/31/2013	**1,200 J**	**40**	**340**	**1.8**	<1.0	**0.20 J**	**1.1**	<1.0	**2.1**	**1.3**	<1.0	<1.0	<5.0	<1.0	--
OW-402R	**10/29/2010**	**20**	<5.0	**27**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	--
	4/20/2011	**24**	<1.0	**39**	<1.0	**3.8 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	--
	10/25/2011	**7.4**	<5.0	**46**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25 UJ	<5.0	--
	4/10/2012	**25**	<1.0	**55**	**0.64 J**	**5.1**	<1.0	**0.86 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	10/15/2012	**25**	<1.0	**65 J**	**0.95 J**	**6.6**	**0.16 J**	**1.2**	**0.36 J**	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	4/23/2013	**26**	<1.0	**57**	**0.83 J**	**7.1**	**0.22 J**	<1.0	**0.35 J**	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
	10/30/2013	**23**	<1.0	**54**	**0.82 J**	**6.3**	**0.21 J**	**0.85 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	--
OW-404R	**6/25/2010**	**96**	<5.0	**130**	**1.5 J**	<5.0	<5.0	<5.0 UJ	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<5.0	--
	4/19/2011	**63**	<1.0	**100**	**1.3 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0	--
	10/25/2011	**59**	<5.0	**76**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25 UJ	<5.0	--
	4/12/2012	**69**	<5.0	**110**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	--
	10/15/2012	**61**	**1.1**	**100 J**	**1.2 J**	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	**0.42 J**	<1.0	<1.0	<5.0	<1.0	--
	4/24/2013	**96**	**0.75 J**	**160**	**1.6**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.70 J**	<1.0	<1.0	<5.0	<1.0	--
	10/29/2013	**94**	**1.6**	**120**	**1.8**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.71 J**	<1.0	<1.0	<5.0	<1.0	--

Notes:
1. All units are micrograms per liter (ug/L).
2. **Bold** values reflect detected analytes.
3. Yellow highlighting indicates the reference concentration exceeds the applicable Puerto Rico Water Quality Standard (PRWQS) or USEPA Maximum Contaminant Level (MCL) if no PRWQS is available. MCLs are indicated by *italics* .
4. "--" = analyte not tested for; "J" = the concentration reported was at or below the reporting limit; "UJ" = the analyte was detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample; "<" = the compound was not detected above the method quantification limit shown; "NS" = no sample was taken because the well was dry or inaccessible; "NE" = no groundwater quality standard established; "DUP" = duplicate sample.

TABLE 2
SUMMARY OF GROUNDWATER TESTING RESULTS - BIODEGRADATION PARAMETERS
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Total Organic Carbon	Dissolved Iron	Sulfate	Methane	Ethane	Ethene	Chloride	Nitrate	Dissolved Oxygen	Oxidation-Reduction Potential (mV)	pH (su)
Fill/Alluvium Wells												
GZ-501U[2]	**10/27/2010**	5.2	0.0095 JB	30	0.00034 J	<0.001	<0.001	19	0.98	3.66	-6.6	11.12
	4/18/2011	NS	--	--	--	--	--	--	--	NS	NS	NS
	10/25/2011	4.1	--	--	--	--	--	--	--	2.72	-88.9	10.20
	4/11/2012	6.8	--	--	--	--	--	--	--	4.42	181	9.98
	10/18/2012	5.2	--	--	--	--	--	--	--	--	--	--
GZ-503U[2]	**10/28/2010**	7.3	0.015 J	19	0.00012 J	<0.001	<0.001	5.9	0.23	3.55	101.2	7.6
	4/18/2011	11 B	--	--	--	--	--	--	--	5.7	23	7.95
	10/24/2011	6.6	--	--	--	--	--	--	--	5.31	-48.2	7.73
	4/12/2012	6.9	--	--	--	--	--	--	--	--	--	--
	10/17/2012	6.4	--	--	--	--	--	--	--	7.57	117	7.83
	4/24/2013	7.8	--	--	--	--	--	--	--	--	--	--
	10/30/2013	5.6	--	--	--	--	--	--	--	--	--	--
GZ-504U	**6/24/2010**	NS	--	--	--	--	--	--	--	--	--	--
	10/26/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/2011	NS	--	--	--	--	--	--	--	NS	NS	NS
	10/24/2011	NS	--	--	--	--	--	--	--	NS	NS	NS
	4/11/2012	NS	--	--	--	--	--	--	--	NS	NS	NS
	10/15/2012	NS	--	--	--	--	--	--	--	NS	NS	NS
	4/23/2013	NS	--	--	--	--	--	--	--	NS	NS	NS
	10/29/2013	NS	--	--	--	--	--	--	--	NS	NS	NS
GZ-506U[2]	**10/27/2010**	2.5	0.025 JB	57	<0.001	<0.001	<0.001	27	0.22	3	62.3	7.13
	4/19/2011	1.3	--	--	--	--	--	--	--	4.11	54	7.04
	10/24/2011	1.3	--	--	--	--	--	--	--	3.0	88.0	7.03
	4/10/2012	1.1	--	--	--	--	--	--	--	5.58	120	7.08
	10/16/2012	1.0	--	--	--	--	--	--	--	4.51	222	7.15
	4/24/2013	1.4	--	--	--	--	--	--	--	--	--	--
	10/30/2013	0.82 J	--	--	--	--	--	--	--	3.35	73	7.14
GZ-511U	**10/28/2010**	0.91 J	0.016 J	22	0.019	<0.001	<0.001	8.6	0.088	0.33	21.3	7.1
	10/17/2012	0.62 J	--	--	--	--	--	--	--	0.13	92	7.01
GZ-515U	**6/24/2010**	7.8	--	--	--	--	--	--	--	--	--	--
	10/26/2010	11	0.011 J	23	0.00032 J	<0.001	<0.001	7.2	4.7	2.48	123.3	6.83
	4/20/2011	10 B	0.016 J	24	0.00020 J	<0.001	0.00011 J	7.7	6.8	0.35	11.3	6.71
	10/25/2011	4.3	0.0065 J	13	0.0037	<0.001	<0.001	3.4	1.7	1.43	56.6	6.81
	4/11/2012	5.2	0.014 J	17	<0.001	<0.001	<0.001	5.2	0.87	2.54	263	6.74
	10/17/2012	4.0	<0.200	13	0.0040	<0.001	<0.001	3.9	0.52	1.38	105	6.79
	4/24/2013	7.4	<0.200	16	<0.001	<0.001	<0.001	5.6	0.39	1.88	46.9	6.75
	10/29/2013	3.3	<0.200	13	<0.001	<0.001	<0.001	3.5	0.94	1.16	81.2	6.70
GZ-519U	**10/29/2010**	1.4	0.021 J	100	0.0016	<0.001	<0.001	22	0.023	0.22	82.4	6.99
	4/20/2011	1.7 B	0.021 J	180	0.001	<0.001	<0.001	28	0.45	0.06	-21.5	7.06
	10/26/2011	0.77 J	0.016 J	130	0.0016	<0.001	<0.001	26	0.079	0.10	94.7	7.05
	4/10/2012	0.87 J	0.024 J	140	0.00031 J	<0.001	<0.001	21	0.25	0.11	204	6.97
	10/15/2012	0.81 J	<0.200	160	0.0021	<0.001	<0.001	28	0.042	0.89	206	6.99
	4/23/2013	0.79 J	<0.200	230	<0.001	<0.001	0.0071	32	0.23	0.14	-254	7.03
	10/30/2013	0.58 J	<0.200	150	0.00034 J	<0.001	<0.001	25	0.13	0.04	55.4	7.08
OW-101[2]	**6/25/2010**	2.4	--	--	--	--	--	--	--	--	--	--
	10/29/2010	2.3	0.14	22	0.073	<0.001	<0.001	21	<0.010	0.46	-23.1	6.83
	4/21/2011	1.9	0.020 J	26	0.0041	<0.001	<0.001	26	0.028	0.34	179.0	6.85
	10/27/2011	1.7	0.021 J	38	0.140	<0.001	<0.001	24	0.18	0.43	-128.1	6.81
	4/10/2012	1.5	0.030 J	21	0.011	<0.001	<0.001	18	0.047	0.83	158	6.80
	10/18/2012	2.2	0.51	17	0.150	<0.001	<0.001	17	<0.010	--	--	--
	4/23/2013	1.7	<0.200	28	0.036	<0.001	<0.001	29	0.57	3.87	-5.0	6.90
	10/30/2013	1.5	0.12 J	22	0.092	<0.001	<0.001	24	0.026	0.26	-34.5	6.84
OW-105	**10/27/2010**	3.8	0.056 B	640	0.044	<0.001	<0.001	45	3.3	0.4	-94	6.75
	4/20/2011	1.4 B	--	--	--	--	--	--	--	3.42	-29	6.97
	10/24/2011	0.79 J	--	--	--	--	--	--	--	0.86	27.7	6.91
	4/10/2012	1.3	--	--	--	--	--	--	--	1.06	-106	6.84
	10/17/2012	0.61 J	--	--	--	--	--	--	--	0.69	137	6.94
OW-304U[2]	**10/26/2010**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/2011	NS	--	--	--	--	--	--	--	NS	NS	NS
	10/25/2011	3.1	--	--	--	--	--	--	--	0.37	45.1	6.90
	4/12/2012	2.6	--	--	--	--	--	--	--	--	--	--
	10/17/2012	1.7	--	--	--	--	--	--	--	--	--	--
	4/23/2013	NS	--	--	--	--	--	--	--	NS	NS	NS
	10/30/2013	3.0	--	--	--	--	--	--	--	--	--	--
OW-305U[2]	**10/29/2010**	4.1	0.0096 J	7.4	0.01	<0.001	<0.001	5.0	0.22	5.00	56.8	7.57
	4/21/2011	4.0	<0.050	4.8	0.00024 J	<0.001	<0.001	1.6	0.75	--	--	--
	10/26/2011	3.3	<0.050	3.6	<0.001	<0.001	<0.001	1.7	0.24	0.94	-86.7	7.34
	4/12/2012	2.6	0.061	14	0.055	<0.001	<0.001	8.0	0.067	--	--	--
	10/18/2012	3.2	<0.200	17	<0.001	<0.001	<0.001	7.5	1.3	--	--	--
	4/24/2013	4.7	<0.200	6.9	<0.001	<0.001	<0.001	6.1	0.34	--	--	--
	10/29/2013	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OW-305I	**6/25/2010**	1.8	--	--	--	--	--	--	--	--	--	--
	10/29/2010	2.1	1.0	14	0.56	<0.001	0.0011	9.6	<0.010	0.13	-99.9	6.96
	4/19/2011	0.99 J	--	--	--	--	--	--	--	0.02	-172.8	6.86
	10/26/2011	1.3	--	--	--	--	--	--	--	0.06	-105.4	6.90
	4/11/2012	1.2	--	--	--	--	--	--	--	0.02	116	7.02
	10/17/2012	1.1	--	--	--	--	--	--	--	0.03	-81	6.98
	4/23/2013	1.2	--	--	--	--	--	--	--	0.03	-363	7.02
	10/29/2013	1.0	--	--	--	--	--	--	--	0.03	-48.8	6.98
OW-402U[2]	**10/29/2010**	1.4	0.016 J	27	0.00021 J	<0.001	<0.001	6.1	0.59	1.66	76.7	6.83
	4/20/2011	3.0 B	0.042 J	26	<0.001	<0.001	<0.001	8.5	0.45	5.01	30.7	6.90
	10/25/2011	2.7	0.015	20	<0.001	<0.001	<0.001	6.2	0.68	1.12	117.1	6.86
	4/10/2012	1.2	0.028 J	21	<0.001	<0.001	<0.001	7.1	0.27	2.72	148	6.74
	10/15/2012	1.7	<0.200	14	<0.001	<0.001	<0.001	5.0	0.41	1.30	241	6.79
	4/23/2013	2.5	<0.200	17	<0.001	<0.001	0.0065	8.1	0.25	4.23	-39.1	6.86
	10/31/2013	1.4	--	54	<0.001	<0.001	<0.001	16	1.6	--	--	--
OW-404U	**6/25/2010**	14	--	--	--	--	--	--	--	--	--	--
	10/26/2010	25	0.026 J	33	0.00014 J	<0.001	<0.001	12	5.1	4.46	44.1	7.14
	10/15/2012	14	--	--	--	--	--	--	--	1.85	179	7.33
WB-1U[2]	**6/25/2010**	8.9	--	--	--	--	--	--	--	--	--	--
	10/28/2010	11	0.029 J	22	0.00048 J	<0.001	<0.001	10	21	1.69	124	7.11
	4/19/2011	7.7	--	--	--	--	--	--	--	--	--	--
	10/25/2011	11	--	--	--	--	--	--	--	0.43	-19.3	6.86
	4/12/2012	6.4	--	--	--	--	--	--	--	--	--	--
	10/16/2012	7.0	--	--	--	--	--	--	--	--	--	--
	6/4/2013	5.9	--	--	--	--	--	--	--	--	--	--
	10/29/2013	NS	--	--	--	--	--	--	--	NS	NS	NS
WB-2U	**10/26/2010**	4.7	0.15	18	0.059	<0.001	<0.001	7.2	0.0097 J	0.31	-111.8	6.46
	10/15/2012	3.7	--	--	--	--	--	--	--	0.15	176	6.38

Notes:

1. All units are milligrams per liter (mg/L), except Oxidation-Reduction Potential - millivolts (mV) and pH - standard unit (su).
2. If a sample went dry before stabilization, there are no field parameters associated with this sample.
3. Wells highlighted in gray have historically had near non-detect concentrations of constituents of concern (COCs).
4. "--" = analyte not tested; "J" = the concentration reported was at or below the reporting limit; "B" = the analyte in question was detected in the associated laboratory blank; "<" = the compound was not detected above the method quantification limit shown; "NS" = no sample was taken because the well was dry or inaccessible.

TABLE 2
SUMMARY OF GROUNDWATER TESTING RESULTS - BIODEGRADATION PARAMETERS
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Total Organic Carbon	Dissolved Iron	Sulfate	Methane	Ethane	Ethene	Chloride	Nitrate	Dissolved Oxygen	Oxidation-Reduction Potential (mV)	pH (su)
Saprolite Wells												
DEC-204O	**10/27/2010**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/20/2011	4.6 B	--	--	--	--	--	--	--	0.22	-2.8	6.55
	10/27/2011	1.6	--	--	--	--	--	--	--	0.04	36.9	6.64
	4/12/2012	1.6	--	--	--	--	--	--	--	0.07	100	6.60
	10/16/2012	1.6	--	--	--	--	--	--	--	0.03	168	6.61
	4/23/2013	1.1	--	--	--	--	--	--	--	0.17	141	6.63
	10/30/2013	1.3	--	--	--	--	--	--	--	0.09	82.6	6.62
GZ-501L	**10/27/2010**	2.1	0.025 JB	47	0.0082	<0.001	<0.001	32	0.053	0.13	106.1	6.87
	4/18/2011	1.9 B	--	--	--	--	--	--	--	0.12	-19.9	7.13
	10/24/2011	1.4	--	--	--	--	--	--	--	0.15	-28.2	6.86
	4/11/2012	1.3	--	--	--	--	--	--	--	0.13	268	6.88
	10/17/2012	1.1	--	--	--	--	--	--	--	0.13	260	6.91
	4/25/2013	0.87 J	--	--	--	--	--	--	--	0.14	74	6.96
	10/29/2013	0.83 J	--	--	--	--	--	--	--	0.11	73.1	6.96
GZ-502L	**6/28/2010**	1.3	--	--	--	--	--	--	--	--	--	--
	10/28/2010	1.3	0.016 J	46	0.039	0.00019 J	<0.001	44	0.0095 J	0.29	31.9	6.83
	4/21/2011	1.5	0.023 J	44	0.035	<0.001	<0.001	43	<0.010	0.01	49.5	6.85
	10/26/2011	1.3	0.017 J	48	0.020	<0.001	<0.001	34	<0.010	0.10	138.1	6.85
	4/11/2012	1.3	0.026 J	25	0.011	<0.001	<0.001	17	0.013	0.09	292	6.81
	10/18/2012	1.2	<0.200	55	0.0046	<0.001	<0.001	29	<0.010	0.06	154	6.86
	4/24/2013	0.96 J	<0.200	57	0.0079	<0.001	<0.001	31	0.017	0.09	-247	6.93
	10/29/2013	0.99 J	<0.200	58	0.0036	<0.001	<0.001	30	0.022	0.04	78.8	6.92
GZ-503L	**10/29/2010**	3.2	0.37	28	0.011	<0.001	<0.001	23	0.0099 J	0.19	-188.9	6.79
	4/21/2011	2.1 B	0.041 J	29	0.0074	<0.001	<0.001	23	0.018	0.08	30.5	6.81
	10/27/2011	1.1	0.021 J	26	0.016	<0.001	<0.001	21	<0.010	0.09	-150.8	6.86
	4/11/2012	1.2	0.031 J	35	0.020	<0.001	<0.001	28	0.0064 J	0.07	181	6.86
	10/17/2012	1.5	<0.200	34	0.016	0.00023 J	0.00013 J	26	0.18	0.13	153	6.60
	4/24/2013	1.2	<0.200	38	0.034	<0.001	<0.001	27	0.059	0.32	-188	6.86
	10/29/2013	1.1	<0.200	35	0.030	<0.001	<0.001	24	0.029	0.16	63.7	6.90
GZ-504L	**10/27/2010**	2.2	0.045 JB	46	0.022	<0.001	<0.001	12	0.31	0.19	17.9	6.75
	10/15/2012	1.9	--	--	--	--	--	--	--	0.45	65	6.78
	4/24/2013	1.0	--	--	--	--	--	--	--	2.92	25	6.86
	10/30/2013	0.95 J	--	--	--	--	--	--	--	0.07	46.8	6.82
GZ-505L	**6/28/2010**	3.9	--	--	--	--	--	--	--	--	--	--
	10/26/2010	5.9	0.024 J	23	0.00078 J	<0.001	<0.001	7.7	0.011	0.34	456.1	6.44
	4/18/2011	4.6	--	--	--	--	--	--	--	0.79	56.7	6.71
	10/24/2011	4.0	--	--	--	--	--	--	--	0.22	-180.2	6.41
	4/11/2012	3.9	--	--	--	--	--	--	--	0.11	220	6.51
	10/17/2012	3.6	--	--	--	--	--	--	--	0.09	130	6.50
	4/24/2013	4.6	--	--	--	--	--	--	--	0.52	521	6.50
	10/29/2013	3.6	--	--	--	--	--	--	--	0.36	465	6.55
GZ-601L	**4/12/2012**	0.70 J	0.021 J	63	<0.001	<0.001	<0.001	6.9	0.14	0.44	278	7.10
	10/16/2012	0.55 J	<0.200	63	<0.001	<0.001	<0.001	7.0	0.83	0.16	65	7.12
	4/25/2013	<1.0	--	--	--	--	--	--	--	0.29	58	7.07
	10/30/2013	<1.0	--	--	--	--	--	--	--	0.23	44.8	7.16
OW-1	**6/24/2010**	NS	--	--	--	--	--	--	--	--	--	--
	10/27/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/2011	NS	--	--	--	--	--	--	--	NS	NS	NS
	10/24/2011	1.5	--	--	--	--	--	--	--	0.32	175.1	6.87
	4/11/2012	1.4	--	--	--	--	--	--	--	0.07	224	6.97
	10/16/2012	1.3	--	--	--	--	--	--	--	0.12	150	6.88
OW-101L	**10/27/2010**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/20/2011	2.2 B	0.52	52	0.00062 J	<0.001	<0.001	25	<0.010	0.3	-155.1	6.56
	10/26/2011	1.1	2.9	47	0.0089	<0.001	0.00025 J	22	<0.010	0.19	-128.9	6.70
	4/10/2012	1.1	2.6	50	0.0063	<0.001	0.00048 J	24	0.025	0.13	130	6.72
	10/18/2012	0.82 J	2.0	46	0.0024	<0.001	<0.001	31	0.019	0.12	-147	6.90
	4/23/2013	0.76 J	0.56	26	0.0082	<0.001	0.0022	15	0.053	0.17	-81	6.83
	10/30/2013	0.62 J	1.7	52	0.00050 J	<0.001	<0.001	35	<0.010	0.13	-45.7	6.84
OW-102	**10/28/2010**	0.78 J	0.031 J	44	0.00020 J	<0.001	<0.001	29	0.74	1.49	21.9	6.52
	10/17/2012	0.56 J	--	--	--	--	--	--	--	2.42	203	6.55
	4/23/2013	0.39 J	--	--	--	--	--	--	--	1.95	73	6.67
	10/31/2013	0.49 J	--	--	--	--	--	--	--	1.15	95	6.61
OW-301	**6/24/2010**	0.36 J	--	--	--	--	--	--	--	--	--	--
	10/26/2010	1.6	0.017 J	38	0.00024 J	<0.001	<0.001	4.1	1.1	4.92	77.6	7.00
	4/21/2011	0.48 J	0.014 J	39	0.00014 J	<0.001	<0.001	6.7	3.5	4.52	41.5	7.23
	10/25-26/2011	0.40 J	0.015	37	<0.001	<0.001	<0.001	5.0	3.0	4.39	-28.0	7.09
	4/11/2012	0.37 J	0.022 J	38	<0.001	<0.001	<0.001	5.0	5.3	3.40	293	6.99
	10/16/2012	0.47 J	<0.200	40	<0.001	<0.001	<0.001	7.3	5.4	4.15	147	7.07
	4/25/2013	<1.0	<0.200	38	<0.001	<0.001	<0.001	7.8	4.1	4.79	-127	7.14
	10/30/2013	0.76 J	<0.200	35	<0.001	<0.001	<0.001	5.7	1.2	3.48	91.6	6.99

Notes:

1. All units are milligrams per liter (mg/L), except Oxidation-Reduction Potential - millivolts (mV) and pH - standard unit (su).
2. Wells highlighted in gray have historically had near non-detect concentrations of constituents of concern (COCs).
3. "--" = analyte not tested; "J" = the concentration reported was at or below the reporting limit; "B" = the analyte in question was detected in the associated laboratory blank; "<" = the compound was not detected above the method quantification limit shown; "NS" = no sample was taken because the well was dry or inaccessible.

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Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

SAMPLE LOCATION & DATE		Total Organic Carbon	Dissolved Iron	Sulfate	Methane	Ethane	Ethene	Chloride	Nitrate	Dissolved Oxygen	Oxidation-Reduction Potential (mV)	pH (su)
Saprolite Wells												
	10/30/2013	0.76 J	<0.200	35	<0.001	<0.001	<0.001	5.7	1.2	3.48	91.6	6.99
OW-304L	**6/24/2010**	1.9	--	--	--	--	--	--	--	--	--	--
	10/29/2010	3	0.2	80	0.0027	<0.001	<0.001	72	1.7	0.27	2.5	6.46
	4/21/2011	2.6	8.9	80	0.011	<0.001	<0.001	79	3.1	0.42	-14.1	6.42
	10/27/2011	2.4	7.9	63	0.012	<0.001	<0.001	72	3.2	0.17	39.7	6.51
	4/12/2012	2.6	0.042 J	81	0.0055	<0.001	<0.001	73	2.5	0.94	148	6.48
	10/16/2012	2.7	0.064 J	82	0.0066	<0.001	<0.001	68	2.2	0.14	-231	6.47
	4/25/2013	2.1	<0.200	81	0.018	<0.001	<0.001	65	1.5	0.25	-246	6.50
	10/31/2013	2.5	0.095 J	81	0.0045	<0.001	<0.001	65	1.5	0.16	73.6	6.54
OW-307	**10/29/2010**	1.2	0.016 J	54	0.00012 J	<0.001	<0.001	43	0.1	1.49	69.9	6.98
	4/21/2011	1.3	0.071	29	0.180	<0.001	0.00019 J	15	<0.010	0.00	-50.2	6.75
	10/25/2011	1.0	0.078	14	0.063	<0.001	<0.001	6.4	<0.010	0.07	-212.3	6.71
	4/10/2012	0.87 J	0.050	16	0.51	0.0011	0.00017 J	8.7	<0.010	0.06	210	6.68
	10/18/2012	1.0	0.064 J	12	0.083	<0.001	<0.001	6.7	<0.010	0.06	-15	6.72
	4/23/2013	0.82 J	0.42	21	0.25	0.00096 J	<0.001	9.4	0.010	0.06	-271	6.72
	10/31/2013	0.86 J	0.26	15	0.37	<0.001	<0.001	6.7	<0.010	0.08	37	6.73
OW-401	**10/28/2010**	1.8	0.020 J	42	0.018	<0.001	<0.001	32	0.048	0.18	131.9	6.82
	10/18/2012	2.1	--	--	--	--	--	--	--	0.88	536	6.51
OW-402L	**10/29/2010**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/20/2011	1.7 B	--	--	--	--	--	--	--	0.03	-61.6	6.79
	10/25/2011	0.52 J	--	--	--	--	--	--	--	0.11	-93.1	6.88
	4/10/2012	0.47 J	--	--	--	--	--	--	--	0.02	226	6.86
	10/15/2012	0.65 J	--	--	--	--	--	--	--	0.02	160	6.95
	4/23/2013	0.85 J	--	--	--	--	--	--	--	0.07	-215	6.96
	10/30/2013	0.42 J	--	--	--	--	--	--	--	0.03	60.2	6.98
OW-403L	**10/29/2010**	1.2	1.6	45	0.00038 J	<0.001	<0.001	21	1.5	0.13	-16.7	6.92
	4/21/2011	0.75 J	0.020 J	82	0.00097 J	<0.001	<0.001	44	0.082	0.07	-37.5	6.94
	10/26/2011	0.52 J	0.047 J	74	0.0029	<0.001	<0.001	46	<0.010	0.16	-130.7	6.95
	4/10/2012	0.36 J	0.017 J	73	0.0039	<0.001	<0.001	50	0.027	0.07	179	6.99
	10/16/2012	0.71 J	<0.200	72	0.013	<0.001	<0.001	49	0.047	0.07	104	7.14
	4/23/2013	0.42 J	<0.200	75	0.017	<0.001	<0.001	50	0.18	0.09	-284	7.03
	10/30/2013	0.46 J	<0.200	78	0.027	<0.001	<0.001	49	0.45	0.04	60.8	7.03
OW-404L	**6/25/2010**	8.2	--	--	--	--	--	--	--	--	--	--
	10/27/2010	16	0.037 JB	44	0.0025	<0.001	<0.001	37	3.5	1.63	35.3	6.45
	10/15/2012	10	--	--	--	--	--	--	--	3.28	158	7.01
OW-405	**6/24/2010**	NS	--	--	--	--	--	--	--	--	--	--
	10/28/2010	3.0	0.0093 J	90	0.00016 J	<0.001	<0.001	11	3.6	1.9	34.3	6.51
	10/17/2012	1.8	--	--	--	--	--	--	--	3.24	191	6.45
OW-407	**10/27/2010**	0.89 J	0.013 JB	17	0.00019 J	<0.001	<0.001	16	1.4	3.14	97.6	6.65
	10/16/2012	0.95 J	--	--	--	--	--	--	--	3.41	193	6.55
OW-408	**6/24/2010**	1.3	--	--	--	--	--	--	--	--	--	--
	10/27/2010	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/16/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/25/2013	0.78 J	--	--	--	--	--	--	--	0.24	112	7.07
	10/30/2013	0.77 J	--	--	--	--	--	--	--	0.06	10.3	7.18
WB-1L	**6/25/2010**	2	--	--	--	--	--	--	--	--	--	--
	10/29/2010	1.8	0.014 J	19	0.0014	<0.001	<0.001	5.8	0.066	0.23	58.4	6.76
	4/18/2011	3.3 B	--	--	--	--	--	--	--	0.58	-32.8	6.85
	10/25/2011	1.4	--	--	--	--	--	--	--	0.23	-225.3	6.82
	4/12/2012	1.6	--	--	--	--	--	--	--	0.13	260	6.77
	10/15/2012	1.6	--	--	--	--	--	--	--	1.04	242	6.77
	4/24/2013	1.5	--	--	--	--	--	--	--	0.40	49	6.90
	10/29/2013	1.6	--	--	--	--	--	--	--	0.10	7.8	6.84
WB-2L	**6/28/2010**	4.2	--	--	--	--	--	--	--	--	--	--
	10/26/2010	5.7	0.089	19	0.011	<0.001	<0.001	21	<0.010	0.12	-182.2	6.67
	4/18/2011	4.6	--	--	--	--	--	--	--	0.04	-175.3	6.82
	10/25/2011	2.6	--	--	--	--	--	--	--	0.12	-179.9	6.61
	4/11/2012	2.9	--	--	--	--	--	--	--	0.12	47	6.57
	10/15/2012	5.3	--	--	--	--	--	--	--	3.60	227	7.23
	4/24/2013	4.1	--	--	--	--	--	--	--	0.10	-285	6.67
	10/29/2013	5.0	--	--	--	--	--	--	--	0.03	-152.4	6.62
WB-3L	**10/27/2010**	1.0	0.021 JB	20	0.00020 J	<0.001	<0.001	12	0.15	0.24	-38.5	7.00
	10/17/2012	0.78 J	--	--	--	--	--	--	--	0.15	124	6.96
	4/24/2013	0.62 J	<0.200	29	0.0011	<0.001	<0.001	22	0.56	0.25	80	7.00
	10/29/2013	0.79 J	<0.200	31	0.00089 J	<0.001	<0.001	23	0.67	0.23	64.3	6.96
WB-4L	**6/28/2010**	1.4	--	--	--	--	--	--	--	--	--	--
	10/26/2010	2.3	0.019 J	25	0.00024 J	<0.001	<0.001	14	0.35	0.28	60.8	6.94
	10/17/2012	1.1	--	--	--	--	--	--	--	0.07	105	6.96
	4/24/2013	0.94 J	<0.200	27	0.00099 J	<0.001	<0.001	18	0.92	0.10	-189	6.99
	10/29/2013	1.0	<0.200	29	<0.001	<0.001	<0.001	18	1.1	0.10	56.25	6.97

Notes:

1. All units are milligrams per liter (mg/L), except Oxidation-Reduction Potential - millivolts (mV) and pH - standard unit (su).
2. Wells highlighted in gray have historically had near non-detect concentrations of constituents of concern (COCs).
3. "--" = analyte not tested; "J" = the concentration reported was at or below the reporting limit; "B" = the analyte in question was detected in the associated laboratory blank; "<" = the compound was not detected above the method quantification limit shown; "NS" = no sample was taken because the well was dry or inaccessible.

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SAMPLE LOCATION & DATE		Total Organic Carbon	Dissolved Iron	Sulfate	Methane	Ethane	Ethene	Chloride	Nitrate	Dissolved Oxygen	Oxidation-Reduction Potential (mV)	pH (su)
Bedrock Wells												
BR-308	**6/25/2010**	1.0	--	--	--	--	--	--	--	--	--	--
	10/28/2010	1.3	0.32	38	0.011	<0.001	<0.001	23	0.0062 J	0.24	-155.0	7.32
	10/18/2012	0.96 J	--	--	--	--	--	--	--	0.08	-104	7.16
DEC-203R	**10/27/2010**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/19/2011	0.48 J	--	--	--	--	--	--	--	0.27	-27.2	6.42
	10/27/2011	1.3	--	--	--	--	--	--	--	0.10	48.7	6.64
	4/12/2012	1.3	--	--	--	--	--	--	--	0.07	127	6.54
	10/16/2012	1.3	--	--	--	--	--	--	--	0.11	175	6.52
GZ-504R	**6/25/2010**	1.8	--	--	--	--	--	--	--	--	--	--
	10/28/2010	2.2	0.2	53	0.023	<0.001	<0.001	14	0.015	0.27	-89.5	6.98
	4/19/2011	1.1	0.140 B	55	0.017	<0.001	<0.001	20	<0.010	0.04	-112.9	6.96
	10/25/2011	1.5	0.020 J	16	0.00070 J	<0.001	<0.001	5.5	1.2	0.15	162.5	7.23
	4/11/2012	1.4	0.019 J	58	0.00045 J	<0.001	<0.001	21	0.19	0.07	155	7.00
	10/15/2012	1.2	<0.200	77	0.00035 J	<0.001	<0.001	24	0.20	0.18	218	6.95
	4/24/2013	1.6	<0.200	81	0.00063 J	<0.001	<0.001	24	0.10	0.17	77	7.05
	10/30/2013	0.81 J	<0.200	82	0.0010	<0.001	<0.001	23	<0.01	0.10	60.27	7.05
GZ-505R	**6/28/2010**	0.75 J	--	--	--	--	--	--	--	--	--	--
	10/26/2010	1.4	0.017 J	39	0.00026 J	<0.001	<0.001	12	2.8	0.12	71.8	6.93
	10/17/2012	0.86 J	--	--	--	--	--	--	--	0.10	-37	6.95
	4/24/2013	0.53 J	<0.200	41	0.18	<0.001	<0.001	19	0.93	0.18	12	7.01
	10/30/2013	0.76 J	<0.200	38	0.24	<0.001	<0.001	16	0.94	0.09	34.4	6.99
GZ-506R	**6/24/2010**	1	--	--	--	--	--	--	--	--	--	--
	10/29/2010	0.86 J	0.018 J	64	0.00016 J	<0.001	<0.001	18	0.93	0.9	-13.1	6.81
	4/19/2011	<1.0	0.033 JB	56	0.00053 J	<0.001	<0.001	28	0.78	1.15	-127.3	6.70
	10/27/2011	0.57 J	0.770	47	<0.001	<0.001	<0.001	19	1.5	0.71	-20.4	6.92
	4/12/2012	0.51 J	0.099	40	<0.001	<0.001	<0.001	24	0.73	0.30	76	6.83
	10/16/2012	0.65 J	0.083 J	44	0.000093 J	<0.001	<0.001	28	0.51	0.74	-22	6.84
	4/25/2013	<1.0	<0.200	49	<0.001	<0.001	<0.001	36	0.23	0.29	-246	6.82
	10/31/2013	0.56 J	<0.200	53	<0.001	<0.001	<0.001	33	0.32	0.36	77.2	6.86
GZ-601R	**4/12/2012**	1.5	0.14	61	0.019	0.00023 J	0.00060 J	40	<0.010	0.26	-3	7.36
	10/16/2012	1.2	0.25	59	0.011	<0.001	0.00026 J	34	<0.010	0.14	-261	7.40
	4/25/2013	0.86 J	0.21	60	0.014	<0.001	0.0020	34	<0.010	0.10	-318	7.37
	10/30/2013	1.1	0.20	56	0.019	<0.001	0.0018	32	0.056	0.10	-152.9	7.39
OW-304R	**6/24/2010**	<1.0	--	--	--	--	--	--	--	--	--	--
	10/29/2010	0.55 J	0.030 J	43	0.019	<0.001	0.00021 J	16	0.91	0.09	-179.8	7.49
	4/21/2011	0.52 J	--	--	--	--	--	--	--	0.12	-128.2	7.37
	10/27/2011	0.36 J	0.410	46	0.0077	<0.001	<0.001	20	1.2	0.07	-105.8	7.42
	4/12/2012	0.53 J	0.021 J	48	0.0076	<0.001	<0.001	21	1.1	0.11	-8	7.33
	10/16/2012	0.87 J	--	51	0.0085	<0.001	<0.001	23	1.2	0.76	-98	7.33
	4/25/2013	0.65 J	--	--	--	--	--	--	--	0.05	-344	7.30
	10/31/2013	0.74 J	--	--	--	--	--	--	--	0.06	20.7	7.31
OW-402R	**10/29/2010**	1.2	0.24	54	0.011	<0.001	<0.001	24	0.17	0.09	-60.9	6.95
	4/20/2011	2.9 B	0.100	100	0.00020 J	<0.001	<0.001	43	0.053	0.07	-93.9	6.91
	10/25/2011	1.1	0.084	76	0.0013	<0.001	0.00021 J	30	<0.010	0.12	-179.1	7.04
	4/10/2012	0.76 J	0.022 J	77	0.00081 J	<0.001	0.00024 J	34	0.086	0.08	88	6.94
	10/15/2012	0.77 J	<0.200	75	0.00016 J	<0.001	<0.001	35	0.14	0.09	161	7.07
	4/23/2013	0.45 J	<0.200	72	<0.002	<0.002	<0.002	36	0.38	0.05	70	7.02
	10/30/2013	0.48 J	<0.200	70	0.00094 J	<0.001	<0.001	36	0.57	0.09	59.9	7.12
OW-404R	**6/25/2010**	2	--	--	--	--	--	--	--	--	--	--
	10/28/2010	2.1	0.43	23	0.031	<0.001	<0.001	9.8	<0.010	0.12	-79.5	6.72
	4/19/2011	1.2	0.390 B	29	0.048	<0.001	<0.001	9.7	<0.010	0.03	-123.1	6.72
	10/25/2011	1.8	0.430	25	0.050	0.00019 J	<0.001	9.8	<0.010	0.11	-50.1	6.73
	4/12/2012	1.6	0.27	29	0.058	0.00022 J	<0.001	9.3	<0.010	0.17	114	6.67
	10/15/2012	1.7	0.34	26	0.034	<0.001	<0.001	9.7	0.086	0.27	11	6.70
	4/24/2013	1.3	0.21	27	0.046	<0.001	<0.001	10	0.014	0.11	-258	6.77
	10/29/2013	1.3	0.15 J	27	0.054	<0.001	<0.001	10	0.014	0.06	13.6	6.73

Notes:

1. All units are milligrams per liter (mg/L), except Oxidation-Reduction Potential - millivolts (mV) and pH - standard unit (su).
2. Wells highlighted in gray have historically had near non-detect concentrations of constituents of concern (COCs).
3. "--" = analyte not tested; "J" = the concentration reported was at or below the reporting limit; "B" = the analyte in question was detected in the associated laboratory blank; "<" = the compound was not detected above the method quantification limit shown; "NS" = no sample was taken because the well was dry or inaccessible.

TABLE 3

Intrinsic Biodegradation Sampling Program - October 2013
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

WELL ID	SAMPLED (YES/NO)	PARAMETERS		RATIONALE FOR NOT SAMPLING
		Limited Set	Complete Set	
Wells Required to be Sampled October 2013 in accordance with the Intrinsic Biodegradation Work Plan				
Alluvium/Fill				
GZ-501U	NO	x		Concentrations below reporting limits since shutdown.
GZ-503U	YES	x		
GZ-504U	NO	x		Well dry during sampling round.
GZ-506U	YES	x		
GZ-519U	YES		x	
OW-101	YES		x	
OW-105	NO	x		Concentrations below reporting limits since shutdown.
OW-304U	NO	x		Well dry during sampling round.
OW-305I	YES	x		
OW-402U	YES		x	
WB-1U	NO	x		Well had insufficient volume of water during sampling round.
Saprolite				
DEC-204O	YES	x		
GZ-501L	YES	x		
GZ-502L	YES		x	
GZ-503L	YES		x	
GZ-505L	YES	x		
OW-1	NO	x		Concentrations below reporting limits since shutdown.
OW-101L	YES		x	
OW-304L	YES		x	
OW-307	YES		x	
OW-402L	YES	x		
OW-403L	YES		x	
WB-1L	YES	x		
WB-2L	YES	x		
Bedrock				
DEC-203R	NO	x		Concentrations below reporting limits since shutdown.
GZ-504R	YES	(Note 3)	x	
GZ-506R	YES		x	
OW-304R	YES	x		
OW-402R	YES		x	
OW-404R	YES		x	
Wells Electively Planned for Sampling October 2013				
Alluvium/Fill				
GZ-515U	YES		x	
OW-305U	NO		x	Well had insufficient volume of water during sampling round.
Saprolite				
GZ-504L	YES	x		
GZ-601L	YES	x		
OW-102	YES	x		
OW-301	YES		x	
OW-408	YES	x		
WB-3L	YES		x	
WB-4L	YES		x	
Bedrock				
GZ-505R	YES		x	
GZ-601R	YES		x	

Notes:

1. "Limited Set" indicates analysis limited to only chlorinated volatile organic compounds (cVOCs), total organic carbon (TOC), and the field parameters dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP)

2. "Complete Set" indicates analysis of cVOCs, dissolved iron, sulfate, methane, ethene, ethane, TOC, chloride, nitrate, and the field parameters DO, pH, and ORP.
3. A Limited Set of parameters was required in the Intrinsic Biodegradation Work Plan.
4. GZ-601L and GZ-601R were installed in February 2012, and, therefore, were not included in the Intrinsic Biodegradation Work Plan.

TABLE 4
SUMMARY OF GROUNDWATER ELEVATION DATA
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

Date	GROUNDWATER ELEVATION DATA [1]																		
	BR-308	**DEC-203R**	**DEC-204O**	**GZ-501U**	**GZ-501L**	**GZ-502L**	**GZ-503U**	**GZ-503L**	**GZ-504U**	**GZ-504L**	**GZ-504R**	**GZ-505L**	**GZ-505R**	**GZ-506U**	**GZ-506R**	**GZ-507R**	**GZ-508R**	**GZ-509R**	**GZ-510R**
Ref. Ele. as of 10/14/02	*140.09*	*158.30*	*158.40*	*137.00*	*137.38*	*137.34*	*137.48*	*137.38*	*131.97*	*132.09*	*132.13*	*134.17*	*134.13*	*148.04*	*147.81*	*133.19*	*129.19*	*129.91*	*131.52*
11/16/10	117.29	105.10	118.57	132.65	117.38	117.29	131.13	117.08	122.19	117.09	116.76	117.27	116.91	141.23	117.88	115.38	115.48	115.12	116.25
11/22/10	116.81	109.80	118.58	132.10	116.85	116.84	129.95	116.60	122.22	116.56	116.33	116.66	116.52	140.96	117.23	114.77	115.11	114.70	115.77
11/30/10	116.35	114.39	118.52	131.36	116.58	116.34	129.40	116.18	122.17	116.36	116.03	116.27	116.03	140.45	116.66	114.38	114.87	114.51	115.51
01/05/11	115.99	121.41	121.47	129.70	115.96	115.99	129.28	115.78	122.14	115.69	115.54	116.02	115.73	140.89	116.30	113.70	114.38	114.03	114.88
01/26/11	116.37	123.33	123.40	131.80	116.33	116.04	129.88	116.33	122.25	116.04	115.83	116.02	115.63	141.47	117.09	114.18	114.63	114.30	115.29
02/28/11	116.08	125.00	124.99	131.17	116.03	116.10	131.10	115.77	122.19	115.83	115.64	115.91	115.74	140.19	116.76	112.12	112.73	112.37	113.32
03/24/11	116.04	126.58	126.74	131.22	115.71	115.80	131.06	115.64	122.06	115.77	115.54	115.63	115.37	141.71	116.62	113.22	113.92	113.53	114.38
4/19,26/2011	115.79	125.40	125.44	132.47	115.82	115.93	131.57	115.65	121.04	115.77	115.49	115.39	115.29	141.04	117.09	112.58	112.89	112.50	113.49
07/21/11	116.69	131.61	131.64	131.55	116.57	116.54	130.00	116.26	122.26	116.00	115.81	115.97	116.29	141.24	117.81	112.68	112.55	112.17	113.31
10/27,28/2011	120.49	134.06	134.17	133.75	120.38	120.34	133.70	118.78	122.22	119.84	119.13	118.94	119.13	142.32	122.81	110.90	115.37	114.87	116.45
01/27/12	116.44	132.30	131.60	130.88	116.38	116.34	129.38	116.03	122.22	115.84	115.63	115.67	115.68	<139.04	117.31	112.09	112.25	111.90	112.88
04/09/12	117.29	130.81	130.70	135.17	116.98	116.61	130.90	116.53	122.23	116.39	115.96	116.49	116.22	141.53	117.72	112.82	112.90	112.49	113.65
07/24/12	116.44	129.58	129.40	132.47	116.28	116.19	130.68	115.98	<118.97	115.79	115.53	115.97	115.73	141.11	117.21	112.00	112.13	111.75	112.99
10/12/12	117.77	131.73	132.08	134.01	118.07	117.41	131.63	116.53	<118.97	116.29	116.83	117.17	117.16	141.37	119.58	113.68	112.93	112.46	113.99
01/16/13	116.69	132.30	132.15	130.80	117.58	116.34	128.48	116.18	<118.97	115.94	115.63	116.17	115.88	140.73	117.66	111.49	111.41	111.02	112.37
04/22/13	116.54	128.90	128.45	132.67	116.43	116.34	132.48	116.06	<118.97	115.92	115.78	115.57	115.83	141.21	117.41	111.84	112.02	111.67	113.01
07/18/13	117.39	129.55	130.05	135.60	117.31	117.09	131.71	116.93	<118.97	116.79	116.33	116.77	116.58	141.59	118.67	112.95	112.79	112.30	113.77
10/28/13	116.79	131.45	130.85	131.10	116.63	116.54	129.83	116.23	<118.97	115.99	115.78	116.17	115.98	140.94	117.69	112.43	112.50	111.97	113.41
	WELL CONSTRUCTION INFORMATION																		
Bottom of Boring [2]	164.00	58.00	40.00	8.00	33.50	35.00	8.40	35.00	13.00	28.50	51.00	27.00	59.00	10.00	81.00	60.00	39.50	54.00	79.00
Boring Bottom Elevation [1]	-23.91	100.30	118.40	129.00	103.88	102.34	129.08	102.38	118.97	103.59	81.13	107.17	75.13	138.04	66.81	73.19	89.69	75.91	52.52
Bottom Screen Elevation [1]	---	100.30	118.40	129.00	103.88	103.34	129.08	102.38	118.97	103.59	81.13	107.17	75.13	139.04	66.81	73.69	90.69	75.91	52.52
Bottom of Screen [2]	---	58.00	40.00	8.00	33.50	34.00	8.40	35.00	13.00	28.50	51.00	27.00	59.00	9.00	81.00	59.50	38.50	54.00	79.00
Date	**DEPTH TO WATER MEASUREMENTS [2]**																		
	BR-308	**DEC-203R**	**DEC-204**	**GZ-501U**	**GZ-501L**	**GZ-502L**	**GZ-503U**	**GZ-503L**	**GZ-504U**	**GZ-504L**	**GZ-504R**	**GZ-505L**	**GZ-505R**	**GZ-506U**	**GZ-506R**	**GZ-507R**	**GZ-508R**	**GZ-509R**	**GZ-510R**
Ref as of 10/12/02	*140.09*	*158.30*	*158.40*	*137.00*	*137.38*	*137.34*	*137.48*	*137.38*	*131.97*	*132.09*	*132.13*	*134.17*	*134.13*	*148.04*	*147.81*	*133.19*	*129.19*	*129.91*	*131.52*
11/16/10	22.80	53.20	39.83	4.35	20.00	20.05	6.35	20.30	9.78	15.00	15.37	16.90	17.22	6.81	29.93	---	---	---	---
11/22/10	23.28	48.50	39.82	4.90	20.53	20.50	7.53	20.78	9.75	15.53	15.80	17.51	17.61	7.08	30.58	---	---	---	---
11/30/10	23.74	43.91	39.88	5.64	20.80	21.00	8.08	21.20	9.80	15.73	16.10	17.90	18.10	7.59	31.15	---	---	---	---
01/05/11	24.10	36.89	36.93	7.30	21.42	21.35	8.20	21.60	9.83	16.40	16.59	18.15	18.40	7.15	31.51	---	---	---	---
01/26/11	23.72	34.97	35.00	5.20	21.05	21.30	7.60	21.05	9.72	16.05	16.30	18.15	18.50	6.57	30.72	---	---	---	---
02/28/11	24.01	33.30	33.41	5.83	21.35	21.24	6.38	21.61	9.78	16.26	16.49	18.26	18.39	7.85	31.05	---	---	---	---
03/24/11	24.05	31.72	31.66	5.78	21.67	21.54	6.42	21.74	9.91	16.32	16.59	18.54	18.76	6.33	31.19	---	---	---	---
04/26/11	24.30	32.90	32.96	4.53	21.56	21.41	5.91	21.73	10.93	16.32	16.64	18.78	18.84	7.00	30.72	---	---	---	---
07/21/11	23.40	26.69	26.76	5.45	20.81	20.80	7.48	21.12	9.71	16.09	16.32	18.20	17.84	6.80	30.00	---	---	---	---
10/28/11	19.60	24.24	24.23	3.25	17.00	17.00	3.78	18.60	9.75	12.25	13.00	15.23	15.00	5.72	25.00	---	---	---	---
01/27/12	23.65	26.00	26.80	6.12	21.00	21.00	8.10	21.35	9.75	16.25	16.50	18.50	18.45	dry	30.50	---	---	---	---
04/09/12	22.80	27.49	27.70	1.83	20.40	20.73	6.58	20.85	9.74	15.70	16.17	17.68	17.91	6.51	30.09	---	---	---	---
07/24/12	23.65	28.72	29.00	4.53	21.10	21.15	6.80	21.40	dry	16.30	16.60	18.20	18.40	6.93	30.60	---	---	---	---
10/12/12	22.32	26.57	26.32	2.99	19.31	19.93	5.85	20.85	dry	15.80	15.30	17.00	16.97	6.67	28.23	---	---	---	---
01/16/13	23.40	26.00	26.25	6.20	19.80	21.00	9.00	21.20	dry	16.15	16.50	18.00	18.25	7.31	30.15	---	---	---	---
04/22/13	23.55	29.40	29.95	4.33	20.95	21.00	5.00	21.32	dry	16.17	16.35	18.60	18.30	6.83	30.40	---	---	---	---
07/18/13	22.70	28.75	28.35	1.40	20.07	20.25	5.77	20.45	dry	15.30	15.80	17.40	17.55	6.45	29.14	---	---	---	---
10/28/13	23.30	26.85	27.55	5.90	20.75	20.80	7.65	21.15	dry	16.10	16.35	18.00	18.15	7.10	30.12	---	---	---	---

1. Groundwater elevations are in units of feet. Elevations are given relative to benchmark #19 (elevation 154 feet, U.S. Geological Survey) located at the bridge on Road 119, Km 0.4 in San German, Puerto Rico.
2. Depth to water, bottom of boring, and bottom of screen units are feet below ground surface. Measurements are made from the top of the PVC riser of each well.
3. All groundwater level measurements were made by JFA personnel. Measurements were made using a water level indicator except for measurements at wells GZ-507R, GZ-508R, GZ-509R, GZ510R, GZ-512R, and GZ-513R which were made using pressure transducers.
4. Water levels have been measured at times and under conditions stated in the text. Fluctuations in the levels of groundwater may occur due to variations in temperature, rainfall, and other factors.
5. Reference elevations were surveyed by Armengol Iglesias Guzman of Puerto Rico.
6. Other Notes:
   "dry" indicates water was not observed within the monitoring well.
   "<" signifies less than - elevation shown is for the bottom of the well.
   "---" signifies information is not available.
   "NR" signifies that a water level measurement was not obtained.
7. The end of December 2010 groundwater level round was conducted on January 5, 2011 due to the holidays.
8. For October 12, 2012 data, the original GZ-601R elevation appeared to be the result of a field error. Because the groundwater elevations in GZ-601L and GZ-601R on October 16, 2012 were equal, the October 12, 2012 GZ-601R elevation is assumed to be equal to the GZ-601L elevation on that date.

TABLE 4
SUMMARY OF GROUNDWATER ELEVATION DATA
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

Date	GZ-511U	GZ-512R	GZ-513R	GZ-515U	GZ-519U	GZ-601L	GZ-601R	OW-1	OW-101	OW-101L	OW-102	OW-105	OW-301	OW-304U	OW-304L	OW-304R	OW-305I	OW-305U	OW-307	OW-401	OW-402U
	GROUNDWATER ELEVATION DATA																				
Ref. Ele. as of 10/14/02	*140.64*	*129.65*	*130.48*	*129.27*	*149.36*	*127.63*	*127.81*	*160.00*	*147.04*	*147.12*	*147.49*	*147.72*	*149.91*	*151.48*	*151.33*	*151.41*	*142.63*	*142.95*	*143.90*	*139.70*	*147.76*
11/16/10	136.84	114.14	113.56	121.38	142.65	---	---	128.23	136.62	112.39	118.07	145.30	132.81	141.76	121.50	121.66	140.63	139.33	109.79	117.24	141.26
11/22/10	134.64	115.34	113.14	119.89	142.22	---	---	128.11	136.32	112.34	117.36	144.89	---	142.60	120.55	120.43	139.78	139.05	110.17	116.78	137.26
11/30/10	136.34	114.85	112.92	118.92	141.91	---	---	127.65	136.01	<111.31	116.76	144.29	130.22	142.43	119.53	119.86	139.66	141.64	111.78	116.47	134.51
01/05/11	133.84	114.30	112.44	121.47	141.36	---	---	127.35	135.04	118.61	116.49	143.97	---	141.51	117.63	117.61	138.30	139.05	117.70	115.90	<130.76
01/26/11	136.89	114.71	112.70	124.82	142.58	---	---	127.72	135.04	120.12	117.49	144.82	128.96	141.56	117.76	117.74	140.48	139.55	119.42	116.28	141.16
02/28/11	135.43	112.56	110.73	122.18	146.17	---	---	128.00	135.83	121.39	116.98	144.80	128.76	141.54	117.43	117.60	139.77	139.19	120.50	116.05	138.39
03/24/11	134.88	114.37	111.84	118.02	146.15	---	---	129.18	135.72	121.30	117.04	143.77	129.41	141.47	117.36	117.26	140.02	135.65	120.34	115.90	138.08
4/19,26/2011	134.66	112.91	110.81	125.82	146.44	---	---	127.55	136.17	122.14	118.13	142.94	127.81	141.53	116.42	117.38	141.13	139.32	120.07	116.60	142.06
07/21/11	137.04	112.58	110.47	125.83	142.23	---	---	133.33	136.54	126.82	118.39	145.52	130.28	141.78	119.53	119.26	139.82	139.33	126.10	116.51	134.46
10/27,28/2011	136.97	117.93	113.14	125.77	144.06	---	---	136.71	137.62	130.70	124.26	144.58	131.93	144.05	122.72	122.71	142.03	139.12	133.95	120.30	143.37
01/27/12	134.44	112.26	110.10	123.18	141.88	---	---	132.49	135.91	126.62	117.71	145.27	129.11	142.51	118.78	118.76	139.23	139.10	125.72	116.30	134.36
04/09/12	134.02	112.90	110.54	123.88	142.36	113.98	113.61	131.83	135.96	126.78	118.62	144.79	129.31	142.63	119.39	119.73	139.90	139.91	126.16	116.92	140.76
07/24/12	136.54	110.55	109.76	122.32	142.41	113.53	113.56	130.20	136.89	125.47	118.59	144.97	128.91	142.68	118.23	118.11	140.48	139.35	124.70	116.25	140.93
10/12/12	137.64	115.49	110.63	124.96	142.73	114.28	114.28	132.81	137.14	128.55	120.69	145.09	131.20	142.98	121.00	120.90	141.43	142.35	129.65	117.60	142.13
01/16/13	134.14	113.84	109.12	119.27	141.81	113.63	113.51	133.25	136.14	127.52	118.14	144.77	129.91	142.58	119.33	119.56	139.13	138.95	126.70	116.50	134.86
04/22/13	137.59	114.12	109.74	125.17	145.06	113.58	113.56	129.65	137.09	124.52	117.93	144.89	128.36	<141.48	118.73	116.01	141.16	139.80	125.00	116.35	141.91
07/18/13	137.84	115.20	110.35	126.37	143.26	114.28	114.44	130.56	137.04	127.37	119.79	145.42	---	142.88	119.40	119.27	141.63	140.55	128.95	117.20	142.31
10/28/13	135.59	114.87	109.99	122.07	142.21	113.68	113.92	131.35	136.52	126.62	118.09	144.72	129.79	142.48	118.86	118.91	140.03	139.15	125.80	116.90	138.46
	WELL CONSTRUCTION INFORMATION																				
Bottom of Boring[2]	10.00	65.00	54.00	12.00	12.50	34.00	77.00	44.70	20.00	35.81	40.00	19.00	43.00	10.00	54.80	89.00	16.54	4.57	40.00	65.90	17.00
Boring Bottom Elevation[1]	130.64	64.65	76.48	117.27	136.86	93.63	50.81	115.30	127.04	111.31	107.49	128.72	106.91	141.48	96.53	62.41	126.09	138.38	103.90	73.80	130.76
Bottom Screen Elevation[1]	130.64	70.65	81.98	117.27	136.86	93.63	50.81	123.60	131.04	111.31	109.79	134.72	108.91	141.48	97.43	62.41	126.09	138.38	105.90	74.70	130.76
Bottom of Screen[2]	10.00	59.00	48.50	12.00	12.50	34.00	77.00	36.40	16.00	35.81	37.70	13.00	41.00	10.00	53.90	89.00	16.54	4.57	38.00	65.00	17.00
Date	**DEPTH TO WATER MEASUREMENTS**																				
	GZ-511U	**GZ-512R**	**GZ-513R**	**GZ-515U**	**GZ-519U**	**GZ-601L**	**GZ-601R**	**OW-1**	**OW-101**	**OW-101L**	**OW-102**	**OW-105**	**OW-301**	**OW-304U**	**OW-304L**	**OW-304R**	**OW-305I[7]**	**OW-305U[7]**	**OW-307**	**OW-401**	**OW-402U**
Ref as of 10/12/02	*140.64*	*129.65*	*130.48*	*129.27*	*149.36*	*127.63*	*127.81*	*160.00*	*147.04*	*147.12*	*147.49*	*147.72*	*149.91*	*151.48*	*151.33*	*151.41*	*142.63*	*142.95*	*143.90*	*139.70*	*147.76*
11/16/10	3.80	---	---	7.89	6.71	---	---	31.77	10.42	34.73	29.42	2.42	17.10	9.72	29.83	29.75	2.00	3.62	34.11	22.46	6.50
11/22/10	6.00	---	---	9.38	7.14	---	---	31.89	10.72	34.78	30.13	2.83	---	8.88	30.78	30.98	2.85	3.90	33.73	22.92	10.50
11/30/10	4.30	---	---	10.35	7.45	---	---	32.35	11.03	dry	30.73	3.43	19.69	9.05	31.80	31.55	2.97	1.31	32.12	23.23	13.25
01/05/11	6.80	---	---	7.80	8.00	---	---	32.65	12.00	28.51	31.00	3.75	---	9.97	33.70	33.80	4.33	3.90	26.20	23.80	dry
01/26/11	3.75	---	---	4.45	6.78	---	---	32.28	12.00	27.00	30.00	2.90	20.95	9.92	33.57	33.67	2.15	3.40	24.48	23.42	6.60
02/28/11	5.21	---	---	7.09	3.19	---	---	32.00	11.21	25.73	30.51	2.92	21.15	9.94	33.90	33.81	2.86	3.76	23.40	23.65	9.37
03/24/11	5.76	---	---	11.25	3.21	---	---	30.82	11.32	25.82	30.45	3.95	20.50	10.01	33.97	34.15	2.61	7.30	23.56	23.80	9.68
04/26/11	5.98	---	---	3.45	2.92	---	---	32.45	10.87	24.98	29.36	4.78	22.10	9.95	34.91	34.03	1.50	3.63	23.83	23.10	5.70
07/21/11	3.60	---	---	3.44	7.13	---	---	26.67	10.50	20.30	29.10	2.20	19.63	9.70	31.80	32.15	2.81	3.62	17.80	23.19	13.30
10/28/11	3.67	---	---	3.50	5.30	---	---	23.29	9.42	16.42	23.23	3.14	17.98	7.43	28.61	28.70	0.60	3.83	9.95	19.40	4.39
01/27/12	6.20	---	---	6.09	7.48	---	---	27.51	11.13	20.50	29.78	2.45	20.80	8.97	32.55	32.65	3.40	3.85	18.18	23.40	13.40
04/09/12	6.62	---	---	5.39	7.00	13.65	14.20	28.17	11.08	20.34	28.87	2.93	20.60	8.85	31.94	31.68	2.73	3.04	17.74	22.78	7.00
07/24/12	4.10	---	---	6.95	6.95	14.10	14.25	29.80	10.15	21.65	28.90	2.75	21.00	8.80	33.10	33.30	2.15	3.60	19.20	23.45	6.83
10/12/12	3.00	---	---	4.31	6.63	13.35	13.53	27.19	9.90	18.57	26.80	2.63	18.71	8.50	30.33	30.51	1.20	0.60	14.25	22.10	5.63
01/16/13	6.50	---	---	10.00	7.55	14.00	14.30	26.75	10.90	19.60	29.35	2.95	20.00	8.90	32.00	31.85	3.50	4.00	17.20	23.20	12.90
04/22/13	3.05	---	---	4.10	4.30	14.05	14.25	30.35	9.95	22.60	29.56	2.83	21.55	dry	32.60	35.40	1.47	3.15	18.90	23.35	5.85
07/18/13	2.80	---	---	2.90	6.10	13.35	13.37	29.44	10.00	19.75	27.70	2.30	---	8.60	31.93	32.14	1.00	2.40	14.95	22.50	5.45
10/28/13	5.05	---	---	7.20	7.15	13.95	13.89	28.65	10.52	20.50	29.40	3.00	20.12	9.00	32.47	32.50	2.60	3.80	18.10	22.80	9.30

1. Groundwater elevations are in units of feet. Elevations are given relative to benchmark #19 (elevation 154 feet, U.S. Geological Survey) located at the bridge on Road 119, Km 0.4 in San German, Puerto Rico.
2. Depth to water, bottom of boring, and bottom of screen units are feet below ground surface. Measurements are made from the top of the PVC riser of each well.
3. All groundwater level measurements were made by JFA personnel. Measurements were made using a water level indicator except for measurements at wells GZ-507R, GZ-508R, GZ-509R, GZ510R, GZ-512R, and GZ-513R which were made using pressure transducers.
4. Water levels have been measured at times and under conditions stated in the text. Fluctuations in the levels of groundwater may occur due to variations in temperature, rainfall, and other factors.
5. Reference elevations were surveyed by Armengol Iglesias Guzman of Puerto Rico.
6. Other Notes:
   "dry" indicates water was not observed within the monitoring well.
   "<" signifies less than - elevation shown is for the bottom of the well.
   "---" signifies information is not available.
   "NR" signifies that a water level measurement was not obtained.
7. The end of December 2010 groundwater level round was conducted on January 5, 2011 due to the holidays.
8. For October 12, 2012 data, the original GZ-601R elevation appeared to be the result of a field error. Because the groundwater elevations in GZ-601L and GZ-601R on October 16, 2012 were equal, the October 12, 2012 GZ-601R elevation is assumed to be equal to the GZ-601L elevation on that date.

TABLE 4
SUMMARY OF GROUNDWATER ELEVATION DATA
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

Date	GROUNDWATER ELEVATION DATA																	
	OW-402L	**OW-402R**	**OW-403L**	**OW-404U**	**OW-404L**	**OW-404R**	**OW-405**	**OW-407**	**OW-408**	**W-1**	**W-7**	**W-8**	**WB-1U**	**WB-1L**	**WB-2U**	**WB-2L**	**WB-3L**	**WB-4L**
Ref. Ele. as of 10/14/02	*148.07*	*148.42*	*147.72*	*131.39*	*131.41*	*131.38*	*141.20*	*154.37*	*154.50*	*154.90*	*131.60*	*149.56*	*132.06*	*130.85*	*131.73*	*131.25*	*131.12*	*130.61*
11/16/10	107.87	107.92	107.60	129.52	116.93	116.86	122.53	134.77	114.80	105.97	116.71	105.26	129.46	118.35	127.03	116.70	116.41	116.43
11/22/10	110.27	110.34	110.92	128.74	116.46	116.40	121.66	133.27	115.87	111.20	116.32	108.69	128.76	117.55	126.63	116.25	116.01	116.10
11/30/10	112.84	115.73	113.42	128.02	116.14	116.08	120.47	132.44	117.52	114.33	116.62	111.92	127.93	115.65	126.09	115.88	115.79	115.77
01/05/11	118.92	119.06	118.72	128.43	115.68	115.65	<117.70	130.37	121.75	120.39	115.67	118.83	127.86	116.60	124.28	115.55	115.42	115.49
01/26/11	120.39	120.64	120.25	130.41	116.04	115.98	<117.70	130.67	123.42	122.20	115.90	120.76	129.48	117.67	123.68	115.82	115.59	115.70
02/28/11	121.58	121.78	121.40	129.15	115.80	115.74	120.28	130.30	124.83	123.53	116.50	122.08	129.10	117.24	123.12	115.57	115.48	115.56
03/24/11	121.45	121.94	121.07	128.67	115.69	115.58	<117.7	131.34	126.11	125.30	115.56	122.76	129.17	117.09	123.18	115.58	115.31	115.40
4/19,26/2011	122.32	122.83	123.34	128.44	115.68	115.61	119.30	130.09	124.73	123.98	115.00	122.86	128.86	117.11	122.03	115.35	115.44	115.41
07/21/11	126.97	127.03	127.10	129.89	115.99	115.95	122.30	132.96	130.20	130.15	115.70	128.46	129.06	115.34	124.73	115.63	115.22	115.41
10/27,28/2011	130.35	129.57	130.16	130.79	118.48	118.98	125.30	138.19	132.90	133.17	118.60	131.58	128.62	120.62	126.29	117.73	118.12	118.26
01/27/12	126.61	127.00	127.27	129.64	115.76	115.73	121.75	133.62	130.40	130.15	115.60	128.33	127.09	117.10	123.61	115.55	115.33	115.36
04/09/12	126.29	126.93	127.01	130.96	116.57	116.28	122.59	131.99	129.98	129.16	115.76	127.68	129.35	118.42	123.50	116.12	115.89	115.88
07/24/12	125.37	125.62	125.72	129.94	115.61	115.58	121.44	130.57	128.83	127.70	115.60	126.86	128.56	116.10	124.08	115.50	115.22	115.31
10/12/12	128.09	128.02	128.41	130.93	117.41	116.97	124.29	133.27	131.13	130.39	116.02	129.66	129.27	118.00	126.02	116.77	116.21	116.58
01/16/13	127.62	127.82	127.97	129.14	114.81	114.78	122.75	132.77	---	129.93	115.70	129.06	127.46	116.95	124.03	115.55	115.37	115.31
04/22/13	124.69	125.02	125.17	130.64	115.86	115.77	120.70	129.72	127.95	126.90	115.60	126.01	127.91	117.70	122.93	115.70	115.27	115.31
07/18/13	126.57	126.82	126.62	131.39	117.01	116.38	123.35	---	---	128.30	116.40	127.71	129.81	112.65	124.23	116.70	115.92	115.51
10/28/13	126.77	126.99	127.05	129.09	115.89	115.83	122.45	131.62	130.32	129.12	115.65	128.09	127.86	117.55	124.17	115.65	115.34	115.39
	WELL CONSTRUCTION INFORMATION																	
Bottom of Boring[2]	53.00	79.00	58.00	5.00	27.50	43.00	23.50	40.00	42.00	---	---	---	5.50	31.00	12.00	31.00	31.00	30.00
Boring Bottom Elevation[1]	95.07	69.42	89.72	126.39	103.91	88.38	117.70	115.50	112.50	-195.10	---	---	126.56	99.84	119.73	100.25	100.12	100.61
Bottom Screen Elevation[1]	95.07	69.42	91.79	126.39	103.91	88.38	117.70	115.50	112.50	---	---	---	126.56	102.34	121.73	101.25	101.12	101.11
Bottom of Screen[2]	53.00	79.00	55.93	5.00	27.50	43.00	23.50	40.00	42.00	---	---	---	5.50	28.50	10.00	30.00	30.00	29.50
Date	**DEPTH TO WATER MEASUREMENTS**																	
	OW-402L	**OW-402R**	**OW-403L**	**OW-404U**	**OW-404L**	**OW-404R**	**OW-405**	**OW-407**	**OW-408**	**W-1**	**W-7**	**W-8**	**WB-1U**	**WB-1L**	**WB-2U**	**WB-2L**	**WB-3L**	**WB-4L**
Ref as of 10/12/02	*148.07*	*148.42*	*147.72*	*131.39*	*131.41*	*131.38*	*141.20*	*154.37*	*154.50*	*154.90*	*131.60*	*149.56*	*132.06*	*130.85*	*131.73*	*131.25*	*131.12*	*130.61*
11/16/10	40.20	40.50	40.12	1.87	14.48	14.52	18.67	19.60	39.70	48.93	14.89	44.30	2.60	12.50	4.70	14.55	14.71	14.18
11/22/10	37.80	38.08	36.80	2.65	14.95	14.98	19.54	21.10	38.63	43.70	15.28	40.87	3.30	13.30	5.10	15.00	15.11	14.51
11/30/10	35.23	32.69	34.30	3.37	15.27	15.30	20.73	21.93	36.98	40.57	14.98	37.64	4.13	15.20	5.64	15.37	15.33	14.84
01/05/11	29.15	29.36	29.00	2.96	15.73	15.73	dry	24.00	32.75	34.51	15.93	30.73	4.20	14.25	7.45	15.70	15.70	15.12
01/26/11	27.68	27.78	27.47	0.98	15.37	15.40	dry	23.70	31.08	32.70	15.70	28.80	2.58	13.18	8.05	15.43	15.53	14.91
02/28/11	26.49	26.64	26.32	2.24	15.61	15.64	20.92	24.07	29.67	31.37	15.10	27.48	2.96	13.61	8.61	15.68	15.64	15.05
03/24/11	26.62	26.48	26.65	2.72	15.72	15.80	dry	23.03	28.39	29.60	16.04	26.80	2.89	13.76	8.55	15.67	15.81	15.21
04/26/11	25.75	25.59	24.38	2.95	15.73	15.77	21.90	24.28	29.77	30.92	16.60	26.70	3.20	13.74	9.70	15.90	15.68	15.20
07/21/11	21.10	21.39	20.62	1.50	15.42	15.43	18.90	21.41	24.30	24.75	15.90	21.10	3.00	15.51	7.00	15.62	15.90	15.20
10/28/11	17.72	18.85	17.56	0.60	12.93	12.40	15.90	16.18	21.60	21.73	13.00	17.98	3.44	10.23	5.44	13.52	13.00	12.35
01/27/12	21.46	21.42	20.45	1.75	15.65	15.65	19.45	20.75	24.10	24.75	16.00	21.23	4.97	13.75	8.12	15.70	15.79	15.25
04/09/12	21.78	21.49	20.71	0.43	14.84	15.10	18.61	22.38	24.52	25.74	15.84	21.88	2.71	12.43	8.23	15.13	15.23	14.73
07/24/12	22.70	22.80	22.00	1.45	15.80	15.80	19.76	23.80	25.67	27.20	16.00	22.70	3.50	14.75	7.65	15.75	15.90	15.30
10/12/12	19.98	20.40	19.31	0.46	14.00	14.41	16.91	21.10	23.37	24.51	15.58	19.90	2.79	12.85	5.71	14.48	14.91	14.03
01/16/13	20.45	20.60	19.75	2.25	16.60	16.60	18.45	21.60	---	24.97	15.90	20.50	4.60	13.90	7.70	15.70	15.75	15.30
04/22/13	23.38	23.40	22.55	0.75	15.55	15.61	20.50	24.65	26.55	28.00	16.00	23.55	4.15	13.15	8.80	15.55	15.85	15.30
07/18/13	21.50	21.60	21.10	0.00	14.40	15.00	17.85	---	---	26.60	15.20	21.85	2.25	18.20	7.50	14.55	15.20	15.10
10/28/13	21.30	21.43	20.67	2.30	15.52	15.55	18.75	22.75	24.18	25.78	15.95	21.47	4.20	13.30	7.56	15.60	15.78	15.22

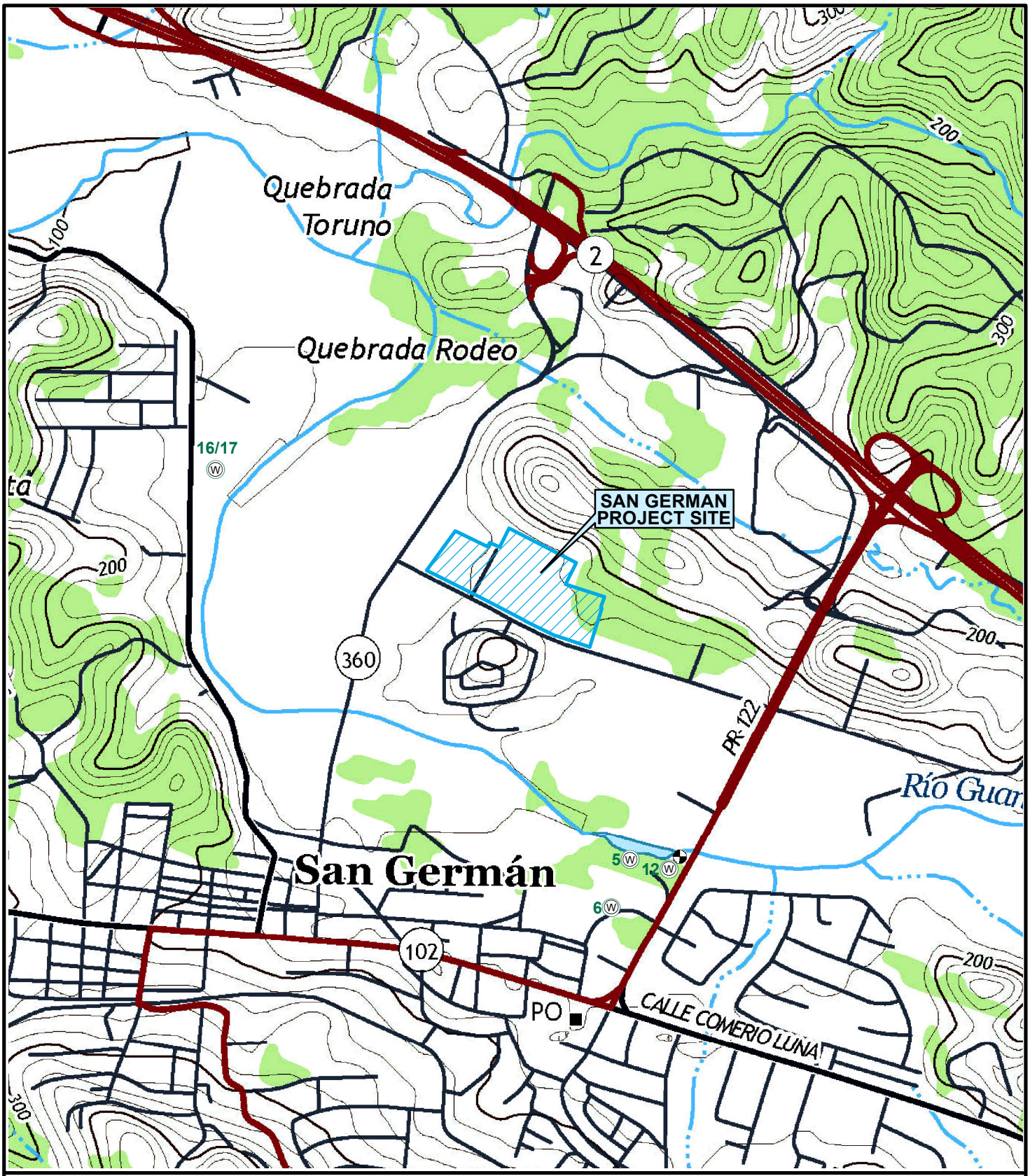
1. Groundwater elevations are in units of feet. Elevations are given relative to benchmark #19 (elevation 154 feet, U.S. Geological Survey) located at the bridge on Road 119, Km 0.4 in San German, Puerto Rico.
2. Depth to water, bottom of boring, and bottom of screen units are feet below ground surface. Measurements are made from the top of the PVC riser of each well.
3. All groundwater level measurements were made by JFA personnel. Measurements were made using a water level indicator except for measurements at wells GZ-507R, GZ-508R, GZ-509R, GZ510R, GZ-512R, and GZ-513R which were made using pressure transducers.
4. Water levels have been measured at times and under conditions stated in the text. Fluctuations in the levels of groundwater may occur due to variations in temperature, rainfall, and other factors.
5. Reference elevations were surveyed by Armengol Iglesias Guzman of Puerto Rico.
6. Other Notes:
   "dry" indicates water was not observed within the monitoring well.
   "<" signifies less than - elevation shown is for the bottom of the well.
   "---" signifies information is not available.
   "NR" signifies that a water level measurement was not obtained.
7. The end of December 2010 groundwater level round was conducted on January 5, 2011 due to the holidays.
8. For October 12, 2012 data, the original GZ-601R elevation appeared to be the result of a field error. Because the groundwater elevations in GZ-601L and GZ-601R on October 16, 2012 were equal, the October 12, 2012 GZ-601R elevation is assumed to be equal to the GZ-601L elevation on that date.

TABLE 5
Proposed Intrinsic Biodegradation Sampling Program - April 2014
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

WELL ID	TO BE SAMPLED (YES/NO)	PARAMETERS		JUSTIFICATION FOR SAMPLING CHANGE
		Limited Set	Complete Set	
Wells Required to be Sampled April 2014 in accordance with the Intrinsic Biodegradation Work Plan				
Alluvium/Fill				
GZ-501U	NO	x		Concentrations below Reporting Limits since Shutdown
GZ-503U	YES	x		
GZ-504U	YES	x		
GZ-506U	YES	x		
GZ-519U	YES		x	
OW-101	YES		x	
OW-105	NO	x		Concentrations below Reporting Limits since Shutdown
OW-304U	YES	x		
OW-305I	YES	x		
OW-402U	YES		x	
WB-1U	YES	x		
Saprolite				
DEC-204O	YES	x		
GZ-501L	YES	x		
GZ-502L	YES		x	
GZ-503L	YES		x	
GZ-505L	YES	x		
OW-1	NO	x		Concentrations below Reporting Limits since Shutdown
OW-101L	YES		x	
OW-304L	YES		x	
OW-307	YES		x	
OW-402L	YES	x		
OW-403L	YES		x	
WB-1L	YES	x		
WB-2L	YES	x		
Bedrock				
DEC-203R	NO	x		Concentrations below Reporting Limits since Shutdown
GZ-504R	YES	(Note 3)	x	Apparent Background Well
GZ-506R	YES		x	
OW-304R	YES	x		
OW-402R	YES		x	
OW-404R	YES		x	
Proposed Wells to be Electively Sampled April 2014				
Alluvium/Fill				
GZ-515U	YES		x	Apparent Background Well
OW-305U	YES		x	Located in Possible Source Area
Saprolite				
GZ-504L	YES	x		Slight Increase since Shutdown
GZ-601L	YES	x		Newly Installed
OW-102	YES	x		Slight Increase since Shutdown
OW-301	YES		x	Apparent Background Well
OW-408	YES	x		Slight Increase since Shutdown
WB-3L	YES		x	Slight Increase since Shutdown
WB-4L	YES		x	Slight Increase since Shutdown
Bedrock				
GZ-505R	YES		x	Increase since Shutdown
GZ-601R	YES		x	Newly Installed

Notes:
1. "Limited Set" indicates analysis limited to only chlorinated volatile organic compounds (cVOCs), total organic carbon (TOC), nitrate, and the field parameters dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP)
2. "Complete Set" indicates analysis of cVOCs, dissolved iron, sulfate, methane, ethene, ethane, TOC, chloride, nitrate, and the field parameters DO, pH, and ORP.
3. A Limited Set of parameters was required in the Intrinsic Biodegradation Work Plan.
4. GZ-601L and GZ-601R were installed in February 2012, and, therefore, were not included in the Intrinsic Biodegradation Work Plan.

FIGURES



SOURCE : SCANNED USGS TOPOGRAPHIC QUADRANGLES DISTRIBUTED BY THE U.S. GEOLOGICAL SURVEY (USGS); SAN GERMAN, PUERTO RICO QUADRANGLE.

0 500 1,000 2,000 3,000 Feet

N W E S

PROJ. MGR.: JAC
DESIGNED BY: JY
REVIEWED BY: CAL
OPERATOR: EMD

DATE: 03-17-2014

SITE LOCUS PLAN

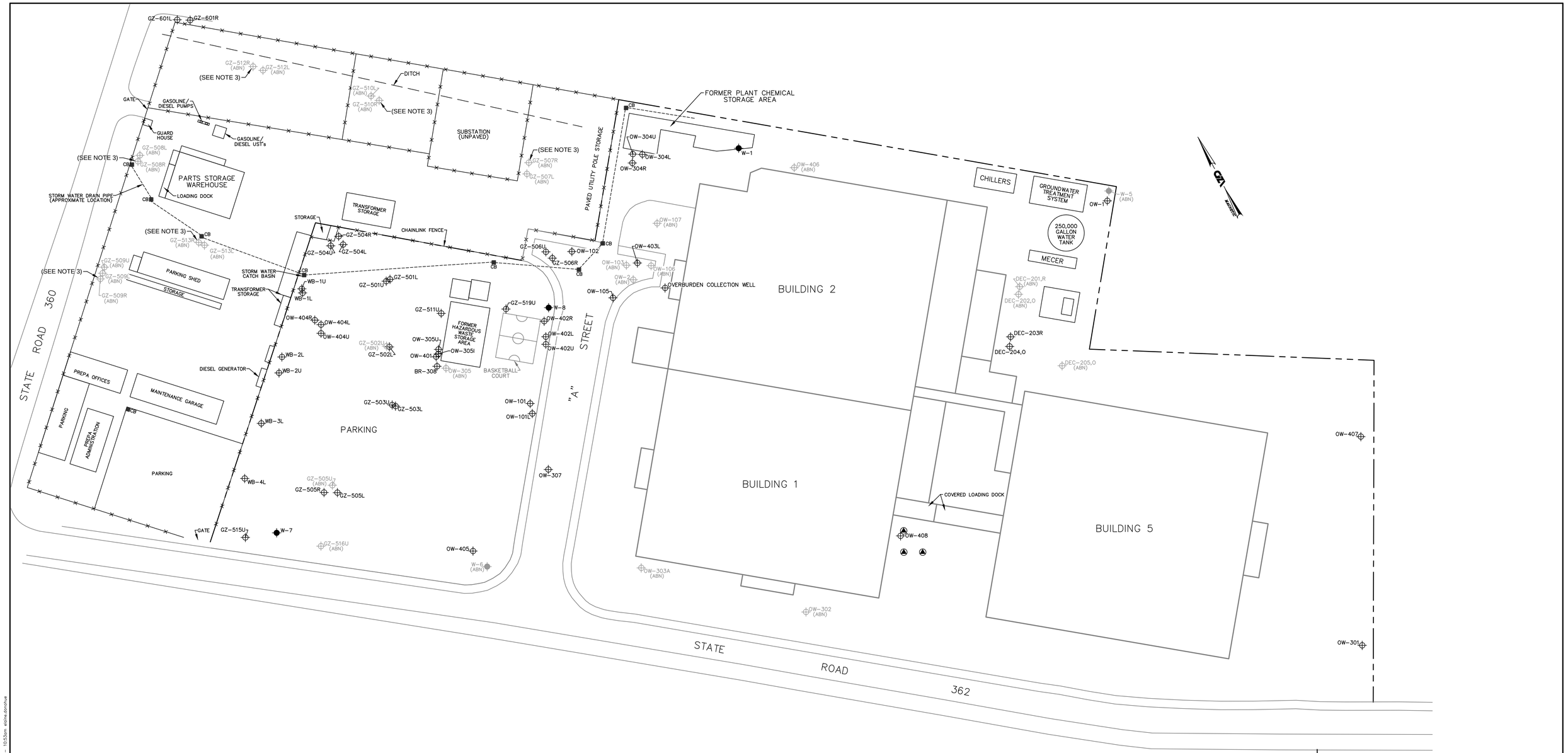
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

JOB NO. 01.0024065.14

FIGURE NO. 1

GZA GeoEnvironmental, Inc.

J:\23,000-24,999\24065\24065-14.JAC\Figures\GIS\MXD\24065-14_2013-USGS_SiteLocus_FIG1.mxd, 3/17/2014, 2:26:44 PM, stephen.washburn



NOTES:

1. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
   (A) PLAN PROVIDED BY PEDRO PANZARDI & ASSOCIATES ENTITLED "SITE PLAN WITH ELEVATIONS OF SEWER SYSTEM," SHEET NO. 3 OF 7, PROJECT NO. 8811, DWG. NO. 10-1.1, DATED 3/11/88, ORIGINAL SCALE: 1:500 OR 1" = 41'.
   (B) PLAN PROVIDED BY DIGITAL EQUIPMENT CORPORATION (DEC), SAN GERMAN, PUERTO RICO, ENTITLED "PLAN & PROFILE" DRAWN BY YELAZQUES, DATED 1/23/87, ORIGINAL SCALE: 1:500 OR 1" = 41'.
2. THE LOCATIONS OF TEST BORINGS/WELLS WERE DETERMINED BY TAPE MEASURES AND "LINE-OF-SIGHT" OBSERVATIONS FROM EXISTING SITE FEATURES. THESE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
3. THE GROUNDWATER ELEVATIONS AT WELLS GZ-507R, GZ-508R, GZ-509R, GZ-510R, GZ-512R, AND GZ-513R ARE MEASURED QUARTERLY USING PRESSURE TRANSDUCERS.

LEGEND

W-8 ◆ BEDROCK EXTRACTION WELL

OW-305U ⊕ MONITORING WELL
- "U" INDICATES MONITORING WELL SCREENED IN FILL/ALLUVIUM
- "L" INDICATES MONITORING WELL SCREENED IN SAPROLITE
- "R" INDICATES MONITORING WELL SCREENED IN BEDROCK
- (ABN) INDICATES MONITORING WELL HAS BEEN ABANDONED

▲ SOIL VAPOR EXTRACTION WELL

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PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

SITE PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
249 VANDERBILT AVENUE
NORWOOD, MASSACHUSETTS 02062
(PH) 781-278-3700

PREPARED FOR:
HEWLETT-PACKARD COMPANY

PROJ MGR: JAC	REVIEWED BY: MJB	CHECKED BY: JAC	FIGURE 2
DESIGNED BY: ATD / JY	DRAWN BY: JRC/VKGW/EMD	SCALE: 1" = 50 FEET	
DATE 02-11-2014	PROJECT NO. 24065.14	REVISION NO.	

GZA-J:\23.0000-24.9999\24065\24065-14.JAC\Figures\CAD\24065-14_Site-Base_v6.dwg [FIG-2_Proj-Prog-Rpt] February 11, 2014 - 10:53am eldine.donohue

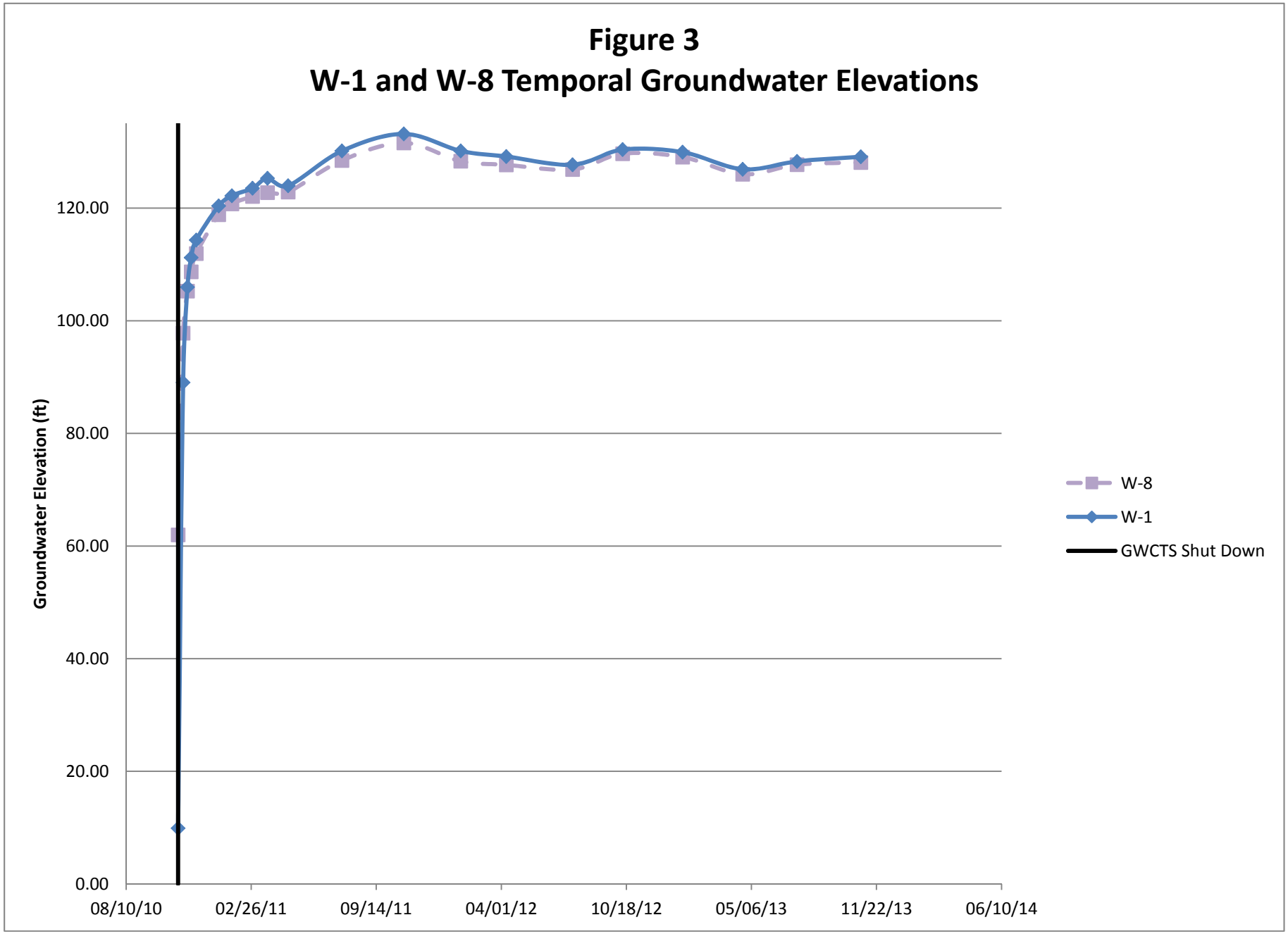
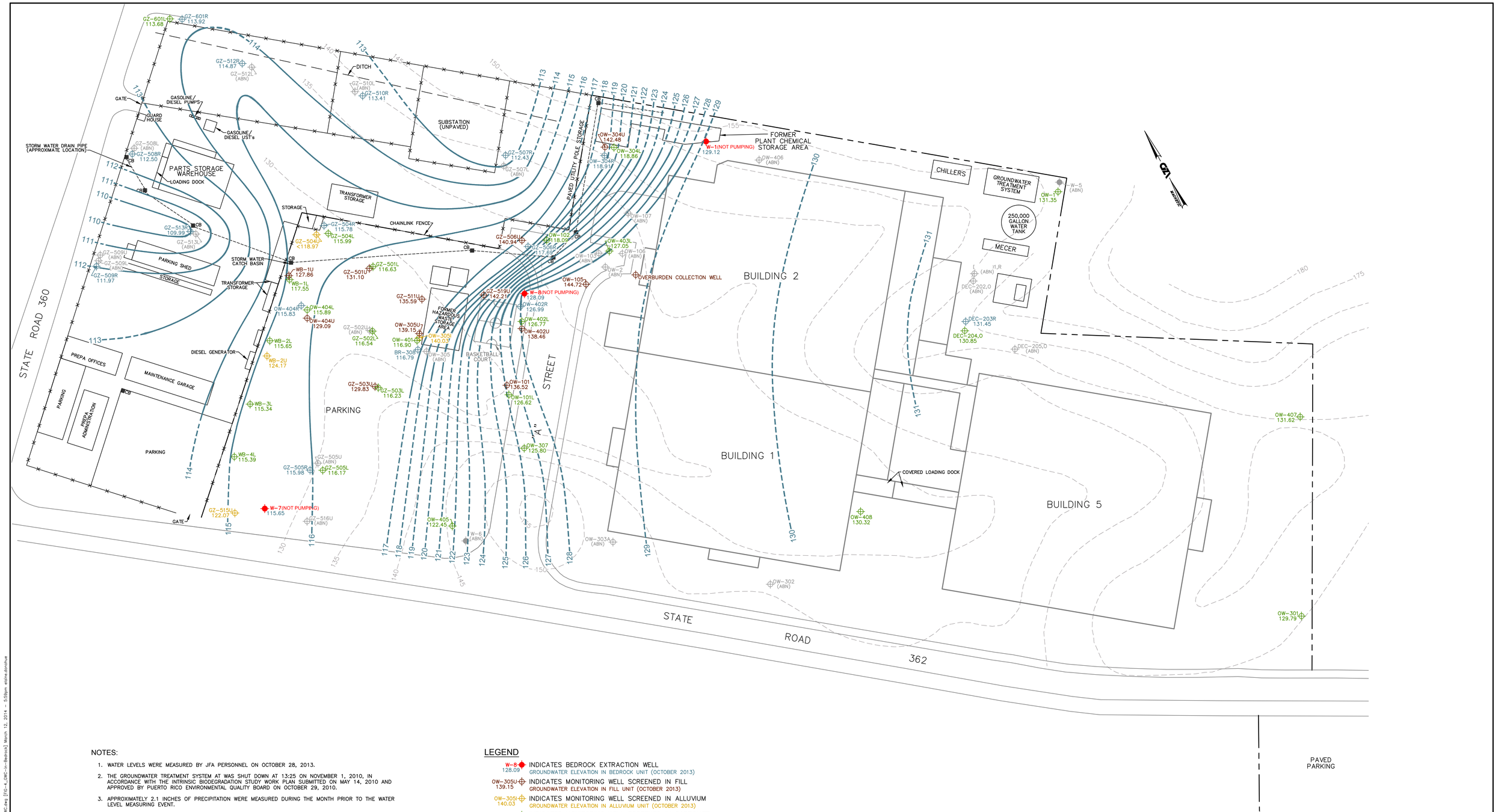


Figure 3
W-1 and W-8 Temporal Groundwater Elevations
Groundwater Elevation (ft)
120.00
100.00
80.00
60.00
40.00
20.00
0.00
08/10/10
02/26/11
09/14/11
04/01/12
10/18/12
05/06/13
11/22/13
06/10/14
W-8
W-1
GWCTS Shut Down



NOTES:

1. WATER LEVELS WERE MEASURED BY JFA PERSONNEL ON OCTOBER 28, 2013.
2. THE GROUNDWATER TREATMENT SYSTEM AT WAS SHUT DOWN AT 13:25 ON NOVEMBER 1, 2010, IN ACCORDANCE WITH THE INTRINSIC BIODEGRADATION STUDY WORK PLAN SUBMITTED ON MAY 14, 2010 AND APPROVED BY PUERTO RICO ENVIRONMENTAL QUALITY BOARD ON OCTOBER 29, 2010.
3. APPROXIMATELY 2.1 INCHES OF PRECIPITATION WERE MEASURED DURING THE MONTH PRIOR TO THE WATER LEVEL MEASURING EVENT.
4. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
   (A) PLAN PROVIDED BY PEDRO PANZARDI & ASSOCIATES ENTITLED "SITE PLAN WITH ELEVATIONS OF SEWER SYSTEM," SHEET NO. 3 OF .7, PROJECT NO. 8811, DWG. NO. 10-1.1, DATED 3/11/88, ORIGINAL SCALE: 1:500 OR 1" = 41'.
   (B) PLAN PROVIDED BY DIGITAL EQUIPMENT CORPORATION (DEC), SAN GERMAN, PUERTO RICO, ENTITLED "PLAN & PROFILE" DRAWN BY YELAZQUES, DATED 1/23/87, ORIGINAL SCALE: 1:500 OR 1" = 41'.
5. THE LOCATIONS OF TEST BORINGS/WELLS WERE DETERMINED BY TAPE MEASURES AND "LINE-OF-SIGHT" OBSERVATIONS FROM EXISTING SITE FEATURES. THESE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
6. THE ELEVATIONS SHOWN ARE REFERENCED TO A DATUM OF 154 FEET, RELATIVE TO BENCHMARK NO. 19 (US GEOLOGICAL SURVEY) LOCATED AT THE BRIDGE ON ROAD 119, KM 0.4 IN SAN GERMAN, PUERTO RICO.
7. WATER LEVEL DATA SHOWN WITH A "<" DESIGNATION INDICATES WELL WAS DRY AT THE TIME THE MEASUREMENTS WERE TAKEN. VALUE PROVIDED INDICATES BOTTOM OF WELL ELEVATION.
8. THE ESTIMATED GROUNDWATER ELEVATION CONTOURS AND DIRECTION OF GROUNDWATER FLOW ARE BASED ON MEASURED WATER LEVELS IN WIDELY SPACED MONITORING WELLS AND ASSUME AN IDEALIZED SPATIAL DISTRIBUTION OF HYDRAULIC HEAD. ACTUAL GROUNDWATER FLOW WILL OCCUR PREFERENTIALLY ALONG FRACTURE SETS WHICH REPRESENT HIGH PERMEABILITY PATHWAYS. THESE PATHWAYS MAY NOT BE ALIGNED WITH THE LOCAL HYDRAULIC HEAD GRADIENT AND MAY CONSEQUENTLY RESULT IN GROUNDWATER FLOW IN A DIRECTION WHICH IS NOT ALIGNED WITH THE DEPICTED MAXIMUM HYDRAULIC GRADIENT.

LEGEND

- W-8 128.09 — INDICATES BEDROCK EXTRACTION WELL; GROUNDWATER ELEVATION IN BEDROCK UNIT (OCTOBER 2013)
- OW-305U 139.15 — INDICATES MONITORING WELL SCREENED IN FILL; GROUNDWATER ELEVATION IN FILL UNIT (OCTOBER 2013)
- OW-305L 140.03 — INDICATES MONITORING WELL SCREENED IN ALLUVIUM; GROUNDWATER ELEVATION IN ALLUVIUM UNIT (OCTOBER 2013)
- OW-401 116.90 — INDICATES MONITORING WELL SCREENED IN SAPROLITE; GROUNDWATER ELEVATION IN SAPROLITE UNIT (OCTOBER 2013)
- BR-308 116.79 — INDICATES MONITORING WELL SCREENED IN BEDROCK; GROUNDWATER ELEVATION IN BEDROCK UNIT (OCTOBER 2013)
- GZ-502U (ABN) — INDICATES MONITORING WELL HAS BEEN ABANDONED
- GROUNDWATER CONTOUR IN BEDROCK UNIT (OCTOBER 2013)
- INFERRED GROUNDWATER CONTOUR IN BEDROCK UNIT (OCTOBER 2013)
- —130— PRE-DEVELOPMENT SITE TOPOGRAPHY IN FEET

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PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

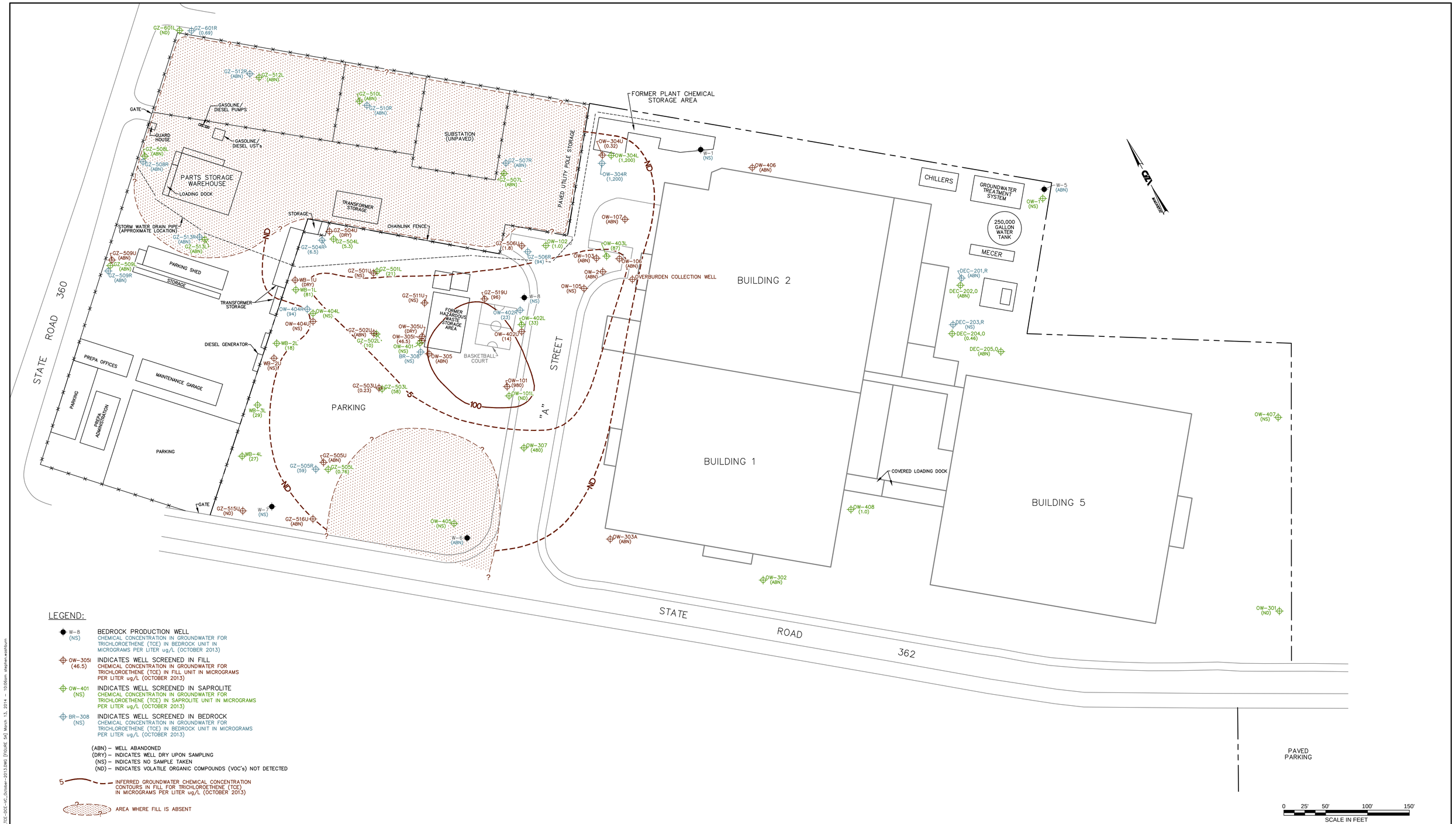
OCTOBER 2013
GROUNDWATER CONTOURS IN BEDROCK

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists
249 VANDERBILT AVENUE
NORWOOD, MASSACHUSETTS 02062
(PH) 781-278-3700

PREPARED FOR: HEWLETT-PACKARD COMPANY

PROJ MGR: JAC	REVIEWED BY: CAL	CHECKED BY: CAL	FIGURE 4
DESIGNED BY: ATD / JY	DRAWN BY: JRC/VKGW/EMD	SCALE: 1" = 50 FEET	
DATE: 03-12-2014	PROJECT NO. 01.0024065.14	REVISION NO.	

GZA-L:\33.000-24.999\24065\24065-14.JAC\Figures\CAD\24065-14_October-2013_GWC.dwg [FIG-4_GWC-in-Bedrock] March 12, 2014 - 5:59pm elaine.donohue



LEGEND:

- W-8 (NS) — BEDROCK PRODUCTION WELL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-305I (46.5) — INDICATES WELL SCREENED IN FILL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN FILL UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-401 (NS) — INDICATES WELL SCREENED IN SAPROLITE
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN SAPROLITE UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- BR-308 (NS) — INDICATES WELL SCREENED IN BEDROCK
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

(ABN) – WELL ABANDONED
(DRY) – INDICATES WELL DRY UPON SAMPLING
(NS) – INDICATES NO SAMPLE TAKEN
(ND) – INDICATES VOLATILE ORGANIC COMPOUNDS (VOC's) NOT DETECTED

5 — INFERRED GROUNDWATER CHEMICAL CONCENTRATION CONTOURS IN FILL FOR TRICHLOROETHENE (TCE) IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

AREA WHERE FILL IS ABSENT

NOTES:

1. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
   (A) PLAN PROVIDED BY PEDRO PANZARDI & ASSOCIATES ENTITLED "SITE PLAN WITH ELEVATIONS OF SEWER SYSTEM," SHEET NO. 3 OF 7, PROJECT NO. 8811, DWG. NO. 10-1.1, DATED 3/11/88, ORIGINAL SCALE: 1:500 OR 1" = 41'.
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3. ANALYTICAL DATA PRESENTED ARE FROM GROUNDWATER SAMPLES COLLECTED OCTOBER 2013.
4. HISTORICAL DATA WAS UTILIZED TO HELP DEVELOP CONTOUR INTERPOLATIONS.

0 25' 50' 100' 150'
SCALE IN FEET

PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

OCTOBER 2013
TCE CONTOUR PLAN IN FILL

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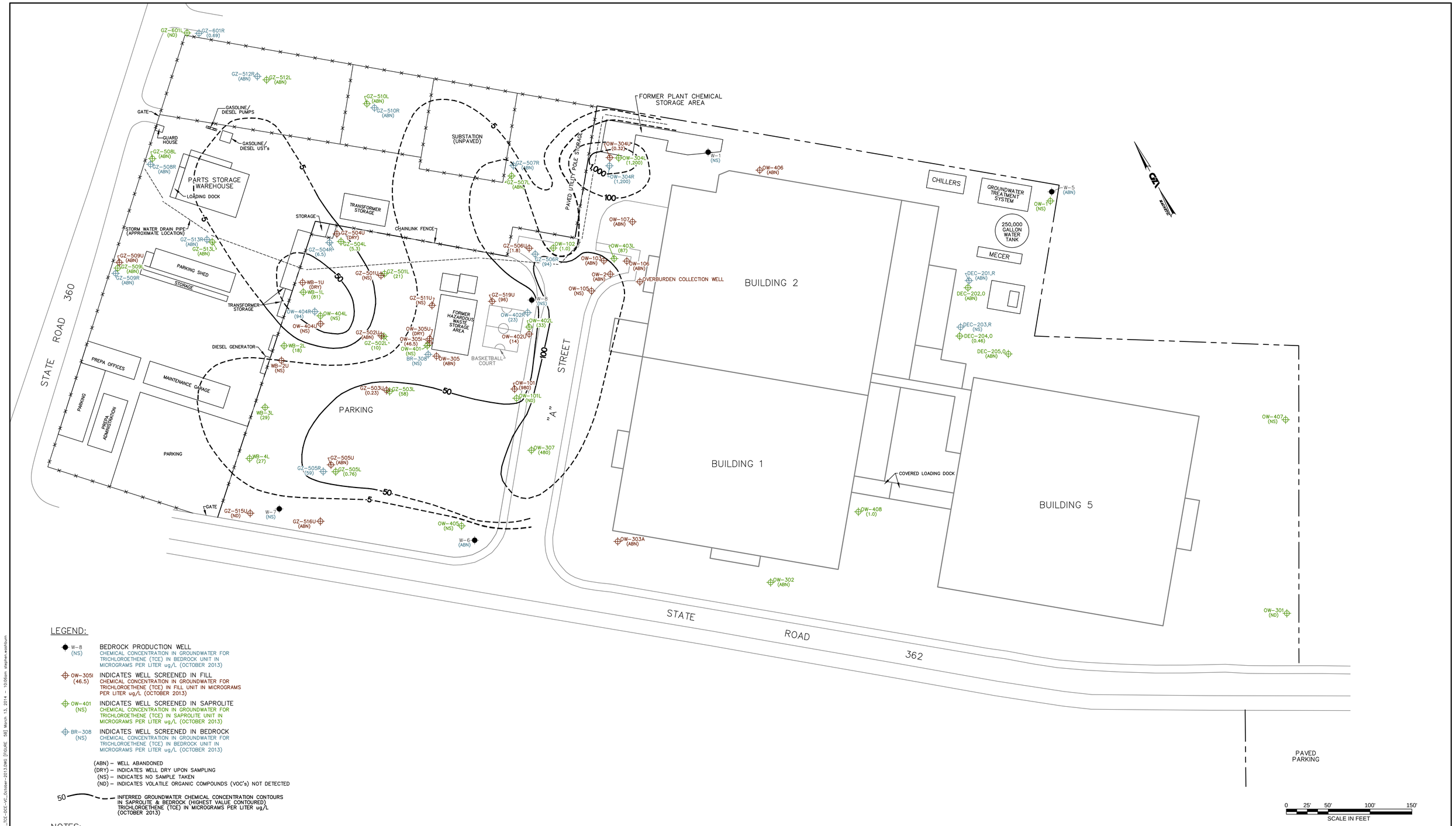
PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
249 VANDERBILT AVENUE
NORWOOD, MASSACHUSETTS 02062
(PH) 781-278-3700

PREPARED FOR: HEWLETT-PACKARD COMPANY

PROJ MGR: JAC	REVIEWED BY: CAL	CHECKED BY: CAL	FIGURE 5A
DESIGNED BY: JY	DRAWN BY: EMD/SMW	SCALE: 1" = 50 FEET	
DATE 03-13-2014	PROJECT NO. 24065.14	REVISION NO.	

GZA-J:\23,000-24,999\24065\24065-14.JAC\Figures\CAD\24065-14_TCE-DCE-VC_October-2013.DWG [FIGURE 5A] March 13, 2014 - 10:06am stephen.washburn



LEGEND:

- W-8 (NS) — BEDROCK PRODUCTION WELL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-305I (46.5) — INDICATES WELL SCREENED IN FILL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN FILL UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-401 (NS) — INDICATES WELL SCREENED IN SAPROLITE
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN SAPROLITE UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- BR-308 (NS) — INDICATES WELL SCREENED IN BEDROCK
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR TRICHLOROETHENE (TCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

(ABN) – WELL ABANDONED
(DRY) – INDICATES WELL DRY UPON SAMPLING
(NS) – INDICATES NO SAMPLE TAKEN
(ND) – INDICATES VOLATILE ORGANIC COMPOUNDS (VOC's) NOT DETECTED

50 — INFERRED GROUNDWATER CHEMICAL CONCENTRATION CONTOURS IN SAPROLITE & BEDROCK (HIGHEST VALUE CONTOURED) TRICHLOROETHENE (TCE) IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

NOTES:

1. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
   (A) PLAN PROVIDED BY PEDRO PANZARDI & ASSOCIATES ENTITLED "SITE PLAN WITH ELEVATIONS OF SEWER SYSTEM," SHEET NO. 3 OF 7, PROJECT NO. 8811, DWG. NO. 10-1.1, DATED 3/11/88, ORIGINAL SCALE: 1:500 OR 1" = 41'.
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4. HISTORICAL DATA WAS UTILIZED TO HELP DEVELOP CONTOUR INTERPOLATIONS.

PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

OCTOBER 2013
TCE CONTOUR PLAN IN SAPROLITE/BEDROCK

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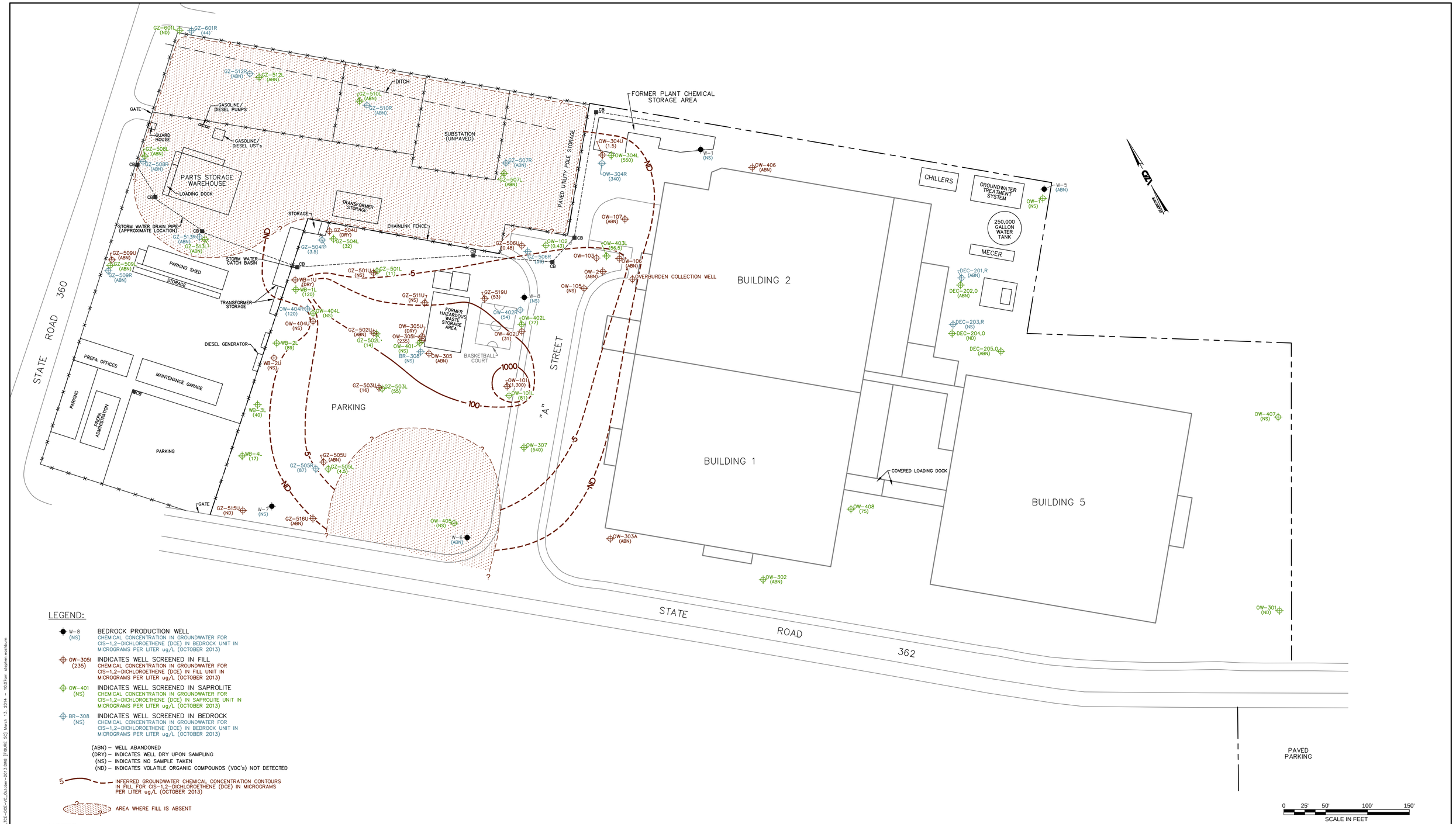
NORWOOD, MASSACHUSETTS 02062
(PH) 781-278-3700

PREPARED FOR: HEWLETT-PACKARD COMPANY

PROJ MGR: JAC	REVIEWED BY: CAL	CHECKED BY: CAL	FIGURE 5B
DESIGNED BY: JY	DRAWN BY: EMD/SMW	SCALE: 1" = 50 FEET	
DATE: 03-13-2014	PROJECT NO: 24065.14	REVISION NO.	

GZA-J:\23,000-24,999\24065\24065-14.JAC\Figures\CAD\24065-14_TCE-OCC-VC_October-2013.DWG [FIGURE 5B] March 13, 2014 - 10:06am stephen.washburn



LEGEND:

- W-8 (NS) — BEDROCK PRODUCTION WELL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-305I (235) — INDICATES WELL SCREENED IN FILL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN FILL UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-401 (NS) — INDICATES WELL SCREENED IN SAPROLITE
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN SAPROLITE UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- BR-308 (NS) — INDICATES WELL SCREENED IN BEDROCK
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

(ABN) – WELL ABANDONED
(DRY) – INDICATES WELL DRY UPON SAMPLING
(NS) – INDICATES NO SAMPLE TAKEN
(ND) – INDICATES VOLATILE ORGANIC COMPOUNDS (VOC's) NOT DETECTED

5 — INFERRED GROUNDWATER CHEMICAL CONCENTRATION CONTOURS IN FILL FOR CIS-1,2-DICHLOROETHENE (DCE) IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

AREA WHERE FILL IS ABSENT

NOTES:

1. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
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4. HISTORICAL DATA WAS UTILIZED TO HELP DEVELOP CONTOUR INTERPOLATIONS.

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PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

OCTOBER 2013
DCE CONTOUR PLAN IN FILL

PREPARED BY:
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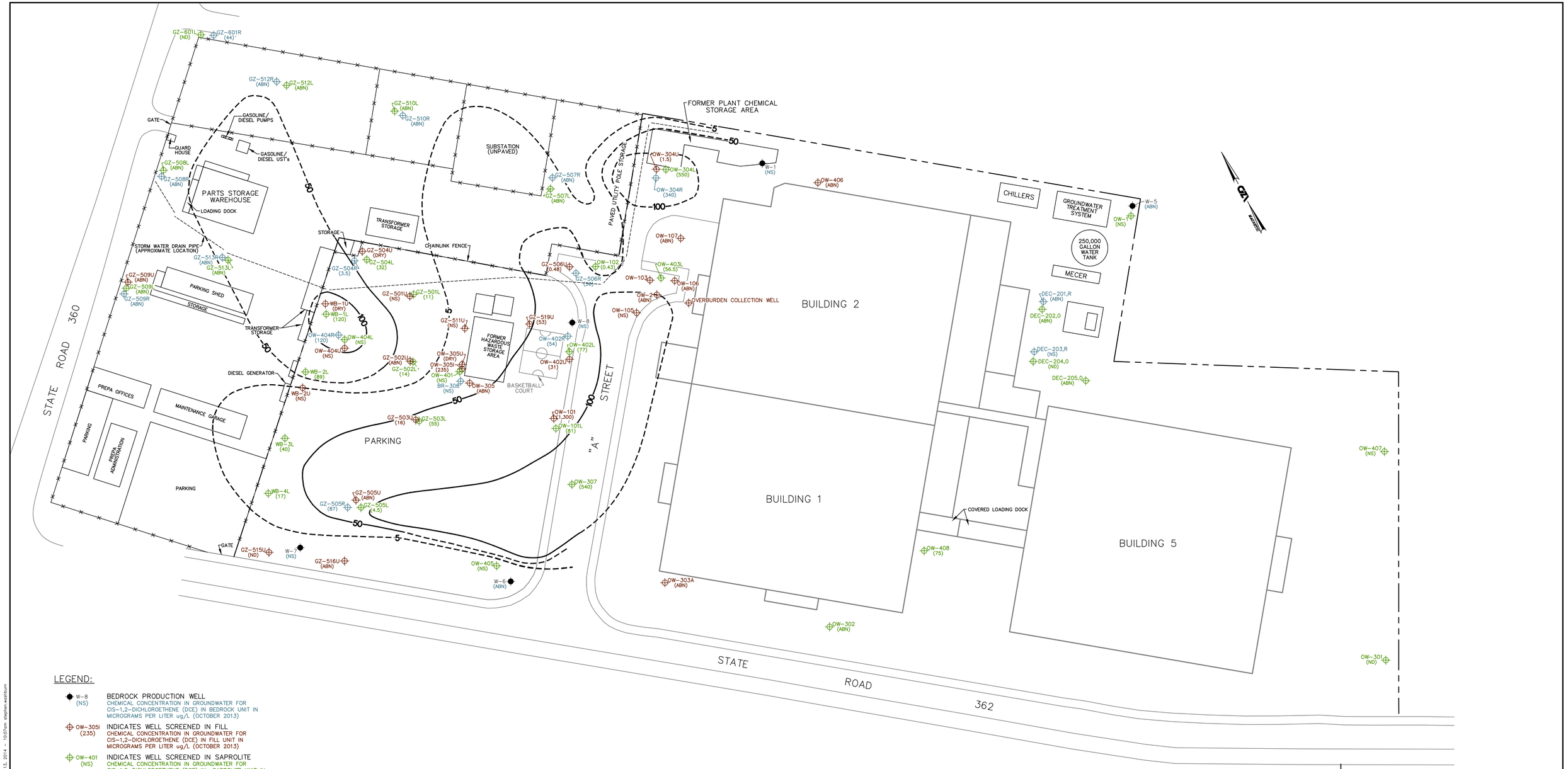
(PH) 781-278-3700

PREPARED FOR: HEWLETT-PACKARD COMPANY

PROJ MGR: JAC	REVIEWED BY: CAL	CHECKED BY: CAL	FIGURE 5C
DESIGNED BY: JY	DRAWN BY: EMD/SMW	SCALE: 1" = 50 FEET	
DATE 03-13-2014	PROJECT NO. 24065.14	REVISION NO.	

G:\Z\23,000-24,999\24065\24065-14_JAC\Figures\CAD\24065-14_TCE-DCE-VC_October-2013.DWG [FIGURE 5C] March 13, 2014 - 10:07am stephen.washburn



LEGEND:

- W-8 (NS) — BEDROCK PRODUCTION WELL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-305I (235) — INDICATES WELL SCREENED IN FILL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN FILL UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-401 (NS) — INDICATES WELL SCREENED IN SAPROLITE
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN SAPROLITE UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- BR-308 (NS) — INDICATES WELL SCREENED IN BEDROCK
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR CIS-1,2-DICHLOROETHENE (DCE) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

(ABN) – WELL ABANDONED
(DRY) – INDICATES WELL DRY UPON SAMPLING
(NS) – INDICATES NO SAMPLE TAKEN
(ND) – INDICATES VOLATILE ORGANIC COMPOUNDS (VOC's) NOT DETECTED

50 — INFERRED GROUNDWATER CHEMICAL CONCENTRATION CONTOURS IN SAPROLITE & BEDROCK (HIGHEST VALUE CONTOURED) CIS-1,2-DICHLOROETHENE (DCE) IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

NOTES:

1. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
   (A) PLAN PROVIDED BY PEDRO PANZARDI & ASSOCIATES ENTITLED "SITE PLAN WITH ELEVATIONS OF SEWER SYSTEM," SHEET NO. 3 OF 7, PROJECT NO. 8811, DWG. NO. 10-1.1, DATED 3/11/88, ORIGINAL SCALE: 1:500 OR 1" = 41'.
   (B) PLAN PROVIDED BY DIGITAL EQUIPMENT CORPORATION (DEC), SAN GERMAN, PUERTO RICO, ENTITLED "PLAN& PROFILE" DRAWN BY YELAZQUES, DATED 1/23/87, ORIGINAL SCALE: 1:500 OR 1" = 41'.
2. THE LOCATIONS OF TEST BORINGS/WELLS WERE DETERMINED BY TAPE MEASURES AND "LINE-OF-SIGHT" OBSERVATIONS FROM EXISTING SITE FEATURES. THESE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
3. ANALYTICAL DATA PRESENTED ARE FROM GROUNDWATER SAMPLES COLLECTED OCTOBER 2013.
4. HISTORICAL DATA WAS UTILIZED TO HELP DEVELOP CONTOUR INTERPOLATIONS.

PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

OCTOBER 2013
DCE CONTOUR PLAN IN SAPROLITE/BEDROCK

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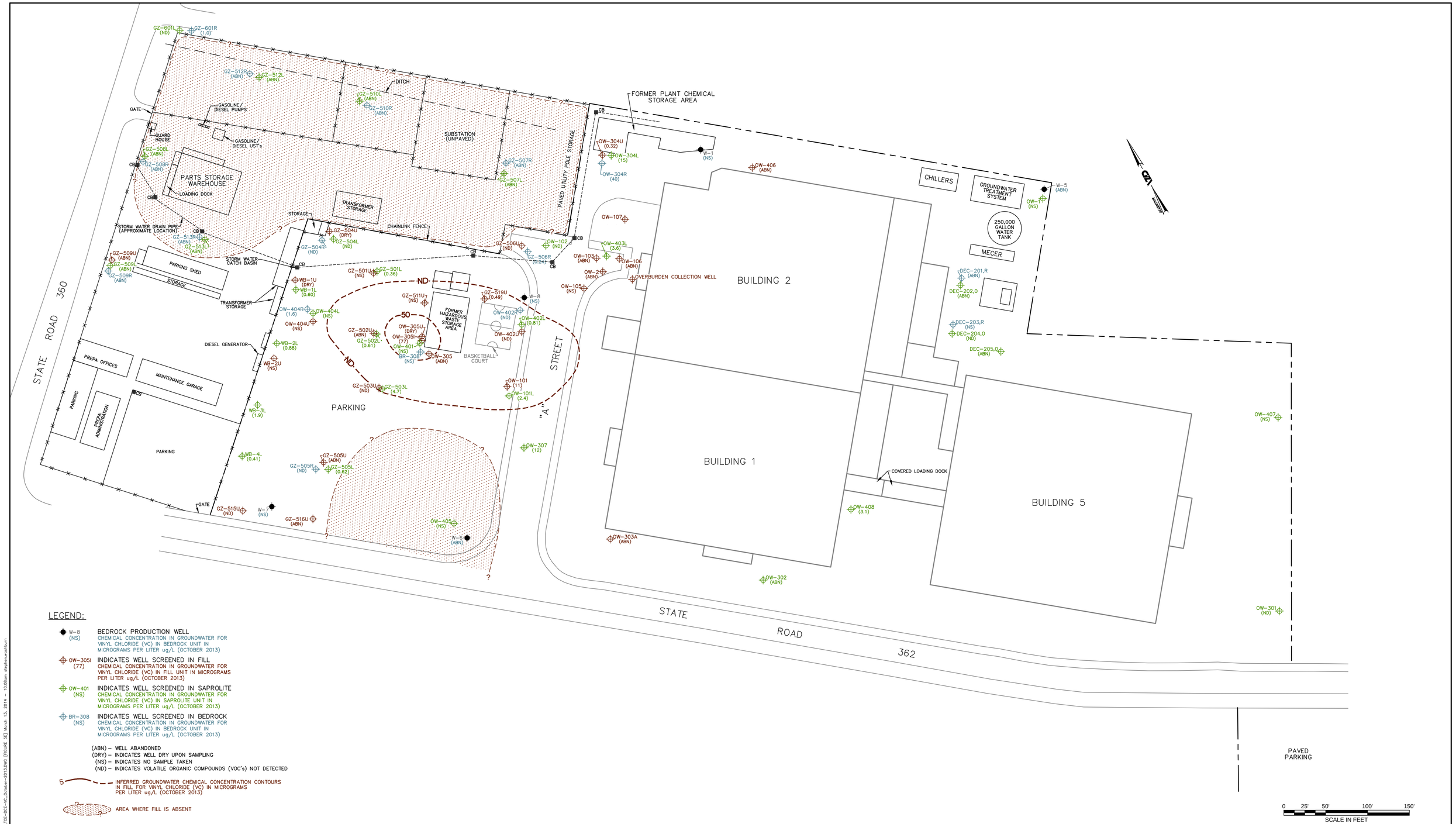
GZA GeoEnvironmental, Inc.
Engineers and Scientists
249 VANDERBILT AVENUE
NORWOOD, MASSACHUSETTS 02062
(PH) 781-278-3700

PREPARED BY: GZA GeoEnvironmental, Inc.		PREPARED FOR: HEWLETT-PACKARD COMPANY	
PROJ MGR: JAC	REVIEWED BY: CAL	CHECKED BY: CAL	FIGURE 5D
DESIGNED BY: JY	DRAWN BY: EMD/SMW	SCALE: 1" = 50 FEET	
DATE: 03-13-2014	PROJECT NO. 24065.14	REVISION NO.	

GZA-J:\23,000-24,999\24065\24065-14.JAC\Figures\CAD\24065-14_TCE-DCE-VC_October-2013.DWG [FIGURE 5D] March 13, 2014 - 10:07am stephen.washburn



LEGEND:

- W-8 (NS) — BEDROCK PRODUCTION WELL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-305I (77) — INDICATES WELL SCREENED IN FILL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN FILL UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-401 (NS) — INDICATES WELL SCREENED IN SAPROLITE
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN SAPROLITE UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- BR-308 (NS) — INDICATES WELL SCREENED IN BEDROCK
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

(ABN) – WELL ABANDONED
(DRY) – INDICATES WELL DRY UPON SAMPLING
(NS) – INDICATES NO SAMPLE TAKEN
(ND) – INDICATES VOLATILE ORGANIC COMPOUNDS (VOC's) NOT DETECTED

5 — INFERRED GROUNDWATER CHEMICAL CONCENTRATION CONTOURS IN FILL FOR VINYL CHLORIDE (VC) IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

AREA WHERE FILL IS ABSENT

NOTES:

1. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
   (A) PLAN PROVIDED BY PEDRO PANZARDI & ASSOCIATES ENTITLED "SITE PLAN WITH ELEVATIONS OF SEWER SYSTEM," SHEET NO. 3 OF 7, PROJECT NO. 8811, DWG. NO. 10-1.1, DATED 3/11/88, ORIGINAL SCALE: 1:500 OR 1" = 41'.
   (B) PLAN PROVIDED BY DIGITAL EQUIPMENT CORPORATION (DEC), SAN GERMAN, PUERTO RICO, ENTITLED "PLAN& PROFILE" DRAWN BY YELAZQUES, DATED 1/23/87, ORIGINAL SCALE: 1:500 OR 1" = 41'.
2. THE LOCATIONS OF TEST BORINGS/WELLS WERE DETERMINED BY TAPE MEASURES AND "LINE-OF-SIGHT" OBSERVATIONS FROM EXISTING SITE FEATURES. THESE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
3. ANALYTICAL DATA PRESENTED ARE FROM GROUNDWATER SAMPLES COLLECTED OCTOBER 2013.
4. HISTORICAL DATA WAS UTILIZED TO HELP DEVELOP CONTOUR INTERPOLATIONS.

0 25' 50' 100' 150'
SCALE IN FEET

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR MODIFIED IN WHOLE OR IN PART FOR ANY OTHER PURPOSE OR PROJECT. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING SHALL BE AT THE USER'S OR OTHER SUCH PARTIES' SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

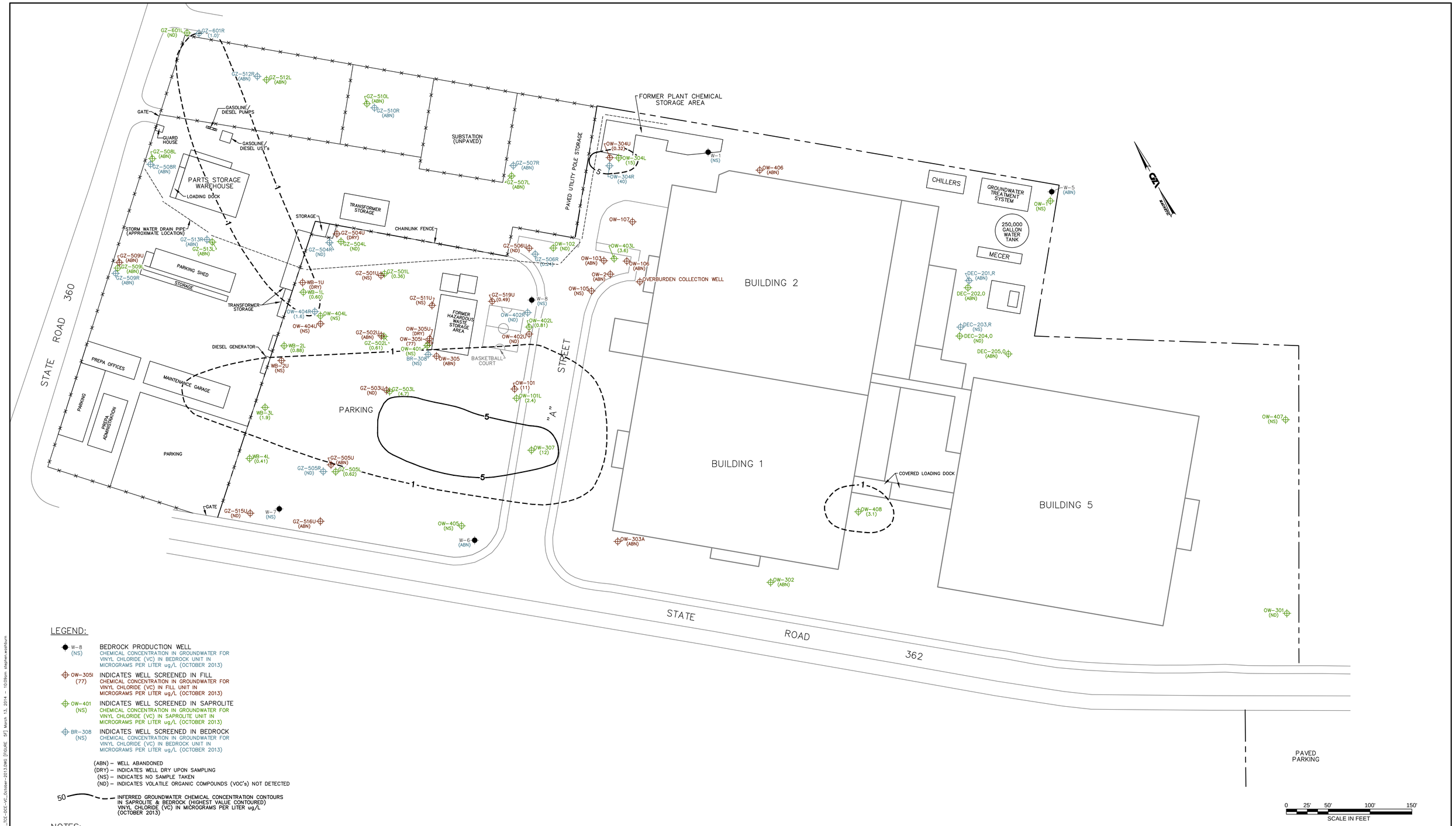
OCTOBER 2013
VC CONTOUR PLAN IN FILL

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
249 VANDERBILT AVENUE
NORWOOD, MASSACHUSETTS 02062
(PH) 781-278-3700

PREPARED FOR: HEWLETT-PACKARD COMPANY

PROJ MGR: JAC	REVIEWED BY: CAL	CHECKED BY: CAL	FIGURE
DESIGNED BY: JY	DRAWN BY: EMD/SMW	SCALE: 1" = 50 FEET	5E
DATE 03-13-2014	PROJECT NO. 24065.14	REVISION NO.	

G:\Z\23,000-24,999\24065\24065-14.JAC\Figures\CAD\24065-14_TCE-DCE-VC_October-2013.DWG [FIGURE 5E] March 13, 2014 - 10:08am stephen.washburn



LEGEND:

- W-8 (NS) — BEDROCK PRODUCTION WELL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-305I (77) — INDICATES WELL SCREENED IN FILL
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN FILL UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- OW-401 (NS) — INDICATES WELL SCREENED IN SAPROLITE
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN SAPROLITE UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)
- BR-308 (NS) — INDICATES WELL SCREENED IN BEDROCK
  CHEMICAL CONCENTRATION IN GROUNDWATER FOR VINYL CHLORIDE (VC) IN BEDROCK UNIT IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

(ABN) – WELL ABANDONED
(DRY) – INDICATES WELL DRY UPON SAMPLING
(NS) – INDICATES NO SAMPLE TAKEN
(ND) – INDICATES VOLATILE ORGANIC COMPOUNDS (VOC's) NOT DETECTED

50 — INFERRED GROUNDWATER CHEMICAL CONCENTRATION CONTOURS IN SAPROLITE & BEDROCK (HIGHEST VALUE CONTOURED) VINYL CHLORIDE (VC) IN MICROGRAMS PER LITER ug/L (OCTOBER 2013)

NOTES:

1. BASE MAP WAS DEVELOPED FROM THE FOLLOWING TWO PLANS:
   (A) PLAN PROVIDED BY PEDRO PANZARDI & ASSOCIATES ENTITLED "SITE PLAN WITH ELEVATIONS OF SEWER SYSTEM," SHEET NO. 3 OF 7, PROJECT NO. 8811, DWG. NO. 10-1.1, DATED 3/11/88, ORIGINAL SCALE: 1:500 OR 1" = 41'.
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PROJECT PROGRESS REPORT
JULY 2013 (Q3) THROUGH DECEMBER 2013 (Q4)
HEWLETT-PACKARD VOLUNTARY REMEDIATION PROJECT
SAN GERMAN, PUERTO RICO

OCTOBER 2013
VC CONTOUR PLAN IN SAPROLITE/BEDROCK

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists
240 VANDERBILT AVENUE
NORWOOD, MASSACHUSETTS 02062
(PH) 781-278-3700

PREPARED FOR: HEWLETT-PACKARD COMPANY

PROJ MGR: JAC	REVIEWED BY: CAL	CHECKED BY: CAL	FIGURE
DESIGNED BY: JY	DRAWN BY: EMD/SMW	SCALE: 1" = 50 FEET	5F
DATE: 03-13-2014	PROJECT NO.: 24065.14	REVISION NO.	

GZA-J:\23,000-24,999\24065\24065-14.JAC\Figures\2013\24065-14_TCE-DCE-VC_October-2013.DWG [FIGURE 5F] March 13, 2014 - 10:09am stephen.washburn

APPENDIX A

LIMITATIONS

LIMITATIONS

1. The reported findings submitted in this report are based in part upon previous and recent data obtained from a limited number of samples from widely spaced subsurface explorations and monitoring wells. The nature and extent of variations between these explorations may not become evident until further investigation is performed. If variations or other latent conditions then appear evident, it will be necessary to re-evaluate the conclusions of this Report.

2. Water level readings have been made in the observation wells periodically and under conditions stated in the text. These data have been reviewed and interpretations have been made in the text of this Report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

3. Quantitative laboratory testing was performed as part of the site investigation and remediation work. Where such analyses have been conducted by an outside laboratory, GZA GeoEnvironmental, Inc. (GZA) has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

4. The findings contained in this Report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the Report. Some of these data were preliminary "screening" level data, and may have not been confirmed with quantitative analyses. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA, and the findings presented herein modified accordingly.

5. Chemical analyses have been performed for specific parameters during the course of this study, as detailed in the text. It must be noted that additional constituents not searched for during the current study may be present in soil and groundwater at the site.

APPENDIX B

VOC CONCENTRATION TREND ANALYSIS

Index of VOC Concentration Trend Analysis Charts
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

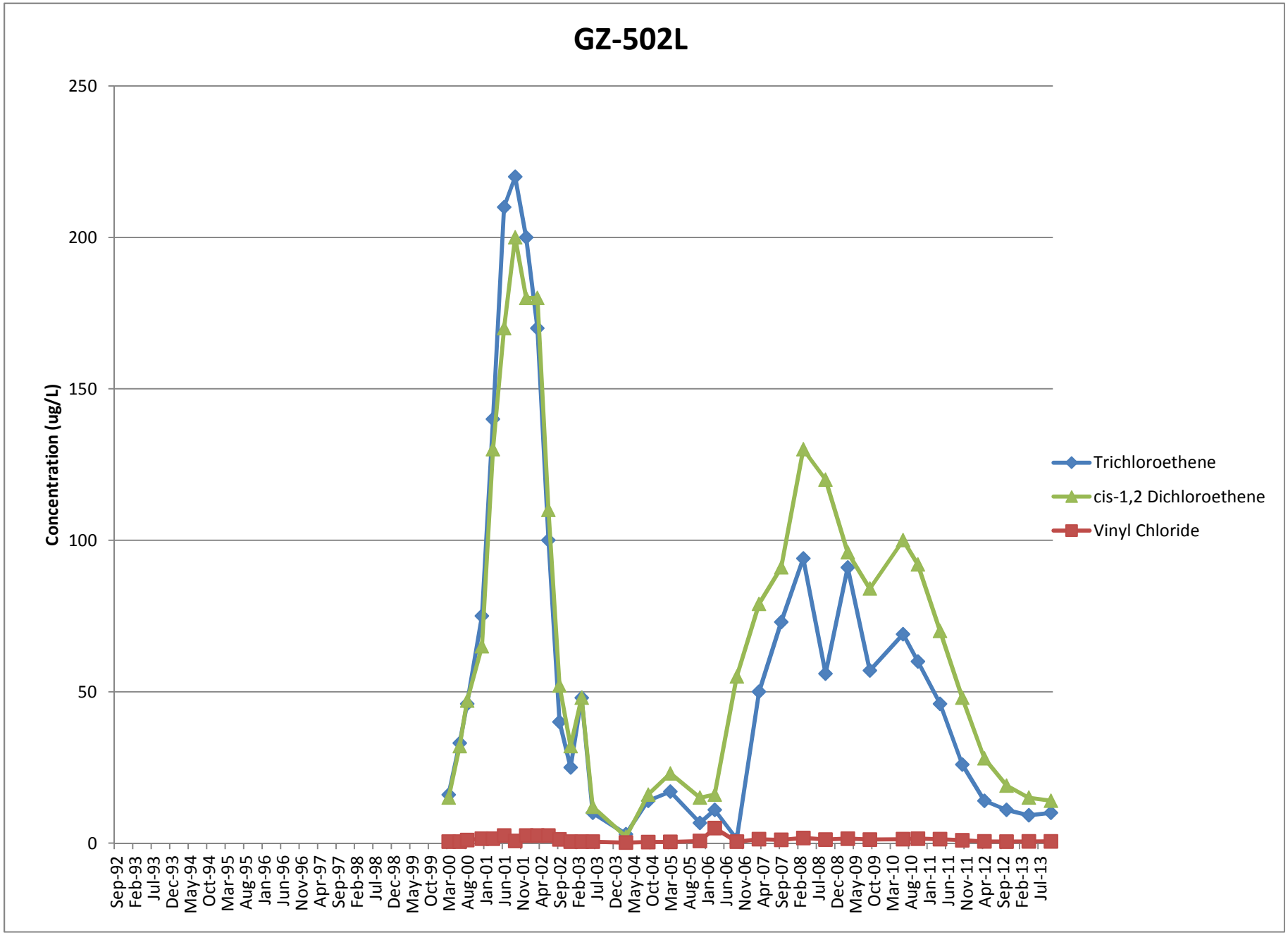
File No. 01.0024065.14

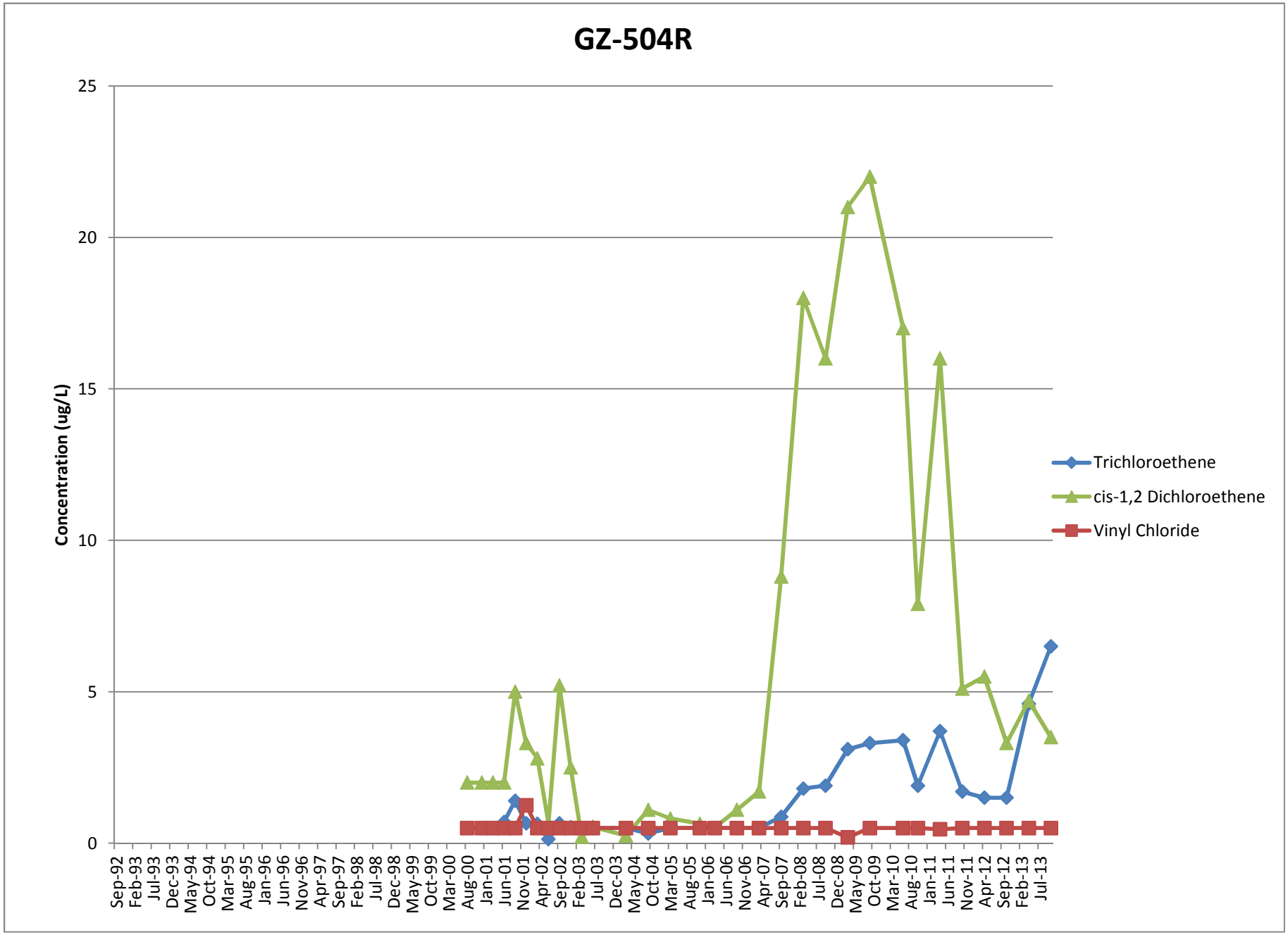
GZ-502L: Screened in the Saprolite Unit	Page 1
GZ-504R: Screened in the Bedrock Unit	Page 2
GZ-505L: Screened in the Saprolite Unit	Page 3
GZ-505R: Screened in the Bedrock Unit	Page 4
GZ-506R: Screened in the Bedrock Unit	Page 5
GZ-515U: Screened in the Alluvium Unit	Page 6
OW-101: Screened in the Fill Unit	Page 7
OW-301: Screened in the Saprolite Unit	Page 8
OW-304L: Screened in the Saprolite Unit	Page 9
OW-304R: Screened in the Bedrock Unit	Page 10
OW-305I: Screened in the Alluvium Unit	Page 11
OW-307: Screened in the Saprolite Unit	Page 12
OW-401: Screened in the Saprolite Unit	Page 13
OW-402U: Screened in the Fill Unit	Page 14
OW-402L: Screened in the Saprolite Unit	Page 15
OW-402R: Screened in the Bedrock Unit	Page 16
OW-403L: Screened in the Saprolite Unit	Page 17
OW-404L: Screened in the Saprolite Unit	Page 18
OW-404R: Screened in the Bedrock Unit	Page 19
OW-404U: Screened in the Fill Unit	Page 20
WB-1U: Screened in the Fill Unit	Page 21
WB-1L: Screened in the Saprolite Unit	Page 22
WB-2L: Screened in the Saprolite Unit	Page 23
WB-4L: Screened in the Saprolite Unit	Page 24

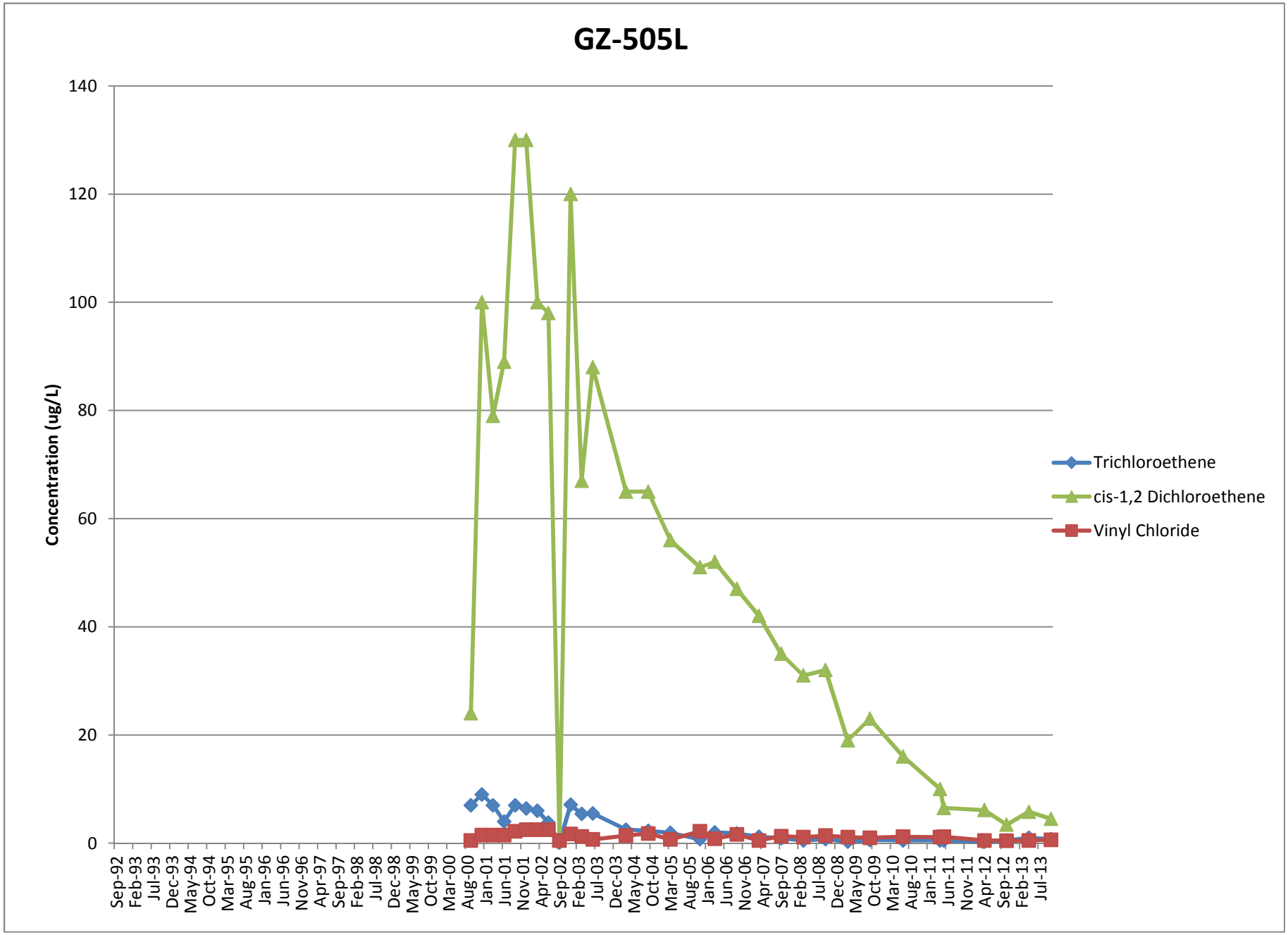
Notes:

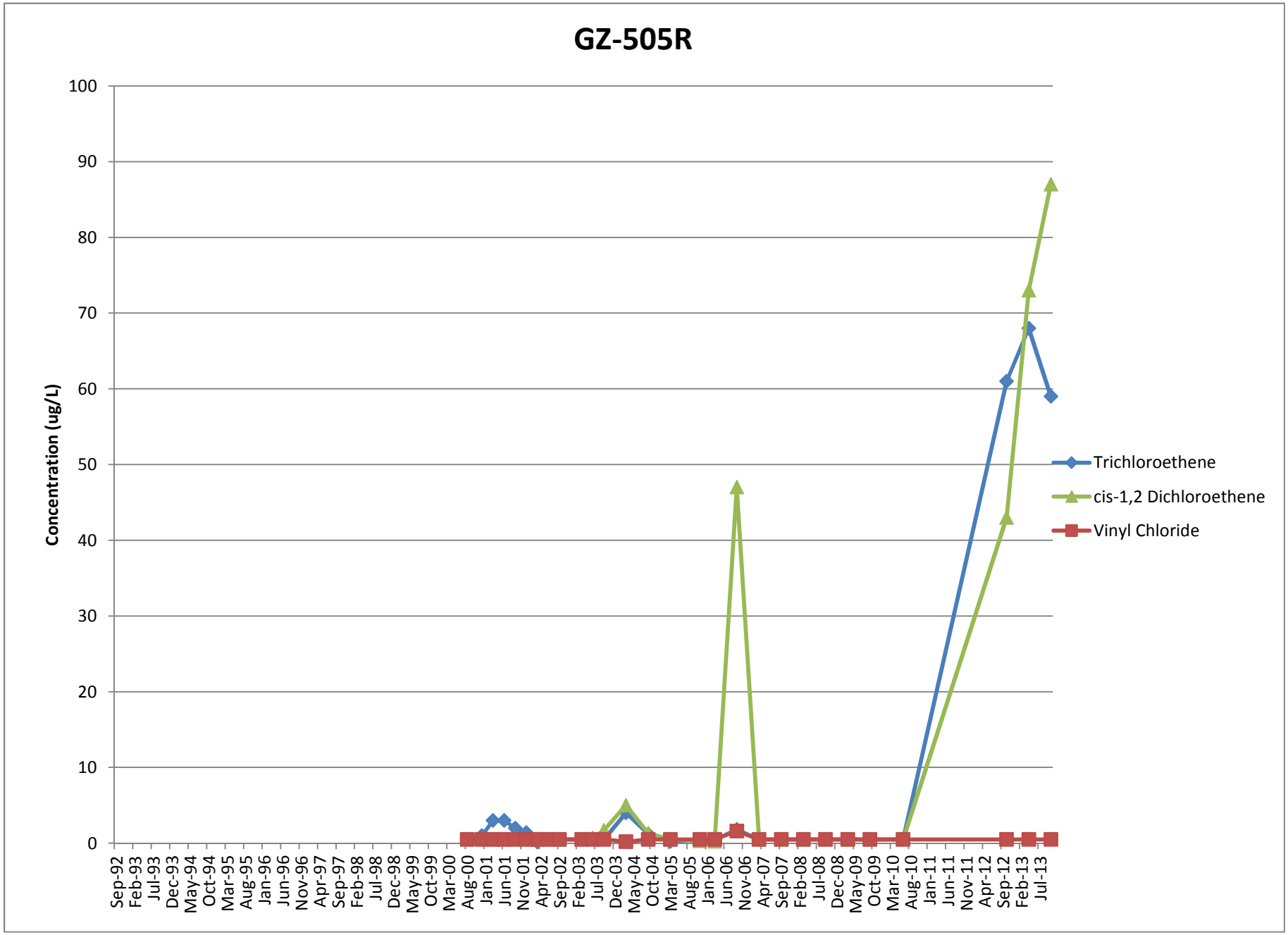
1. In instances where a constituent was not detected, half of the reporting limit was used as the concentration.
2. Data that were reported with qualifiers were treated as if they were not reported with qualifiers in this analysis. In general, this led to a more conservative analysis.

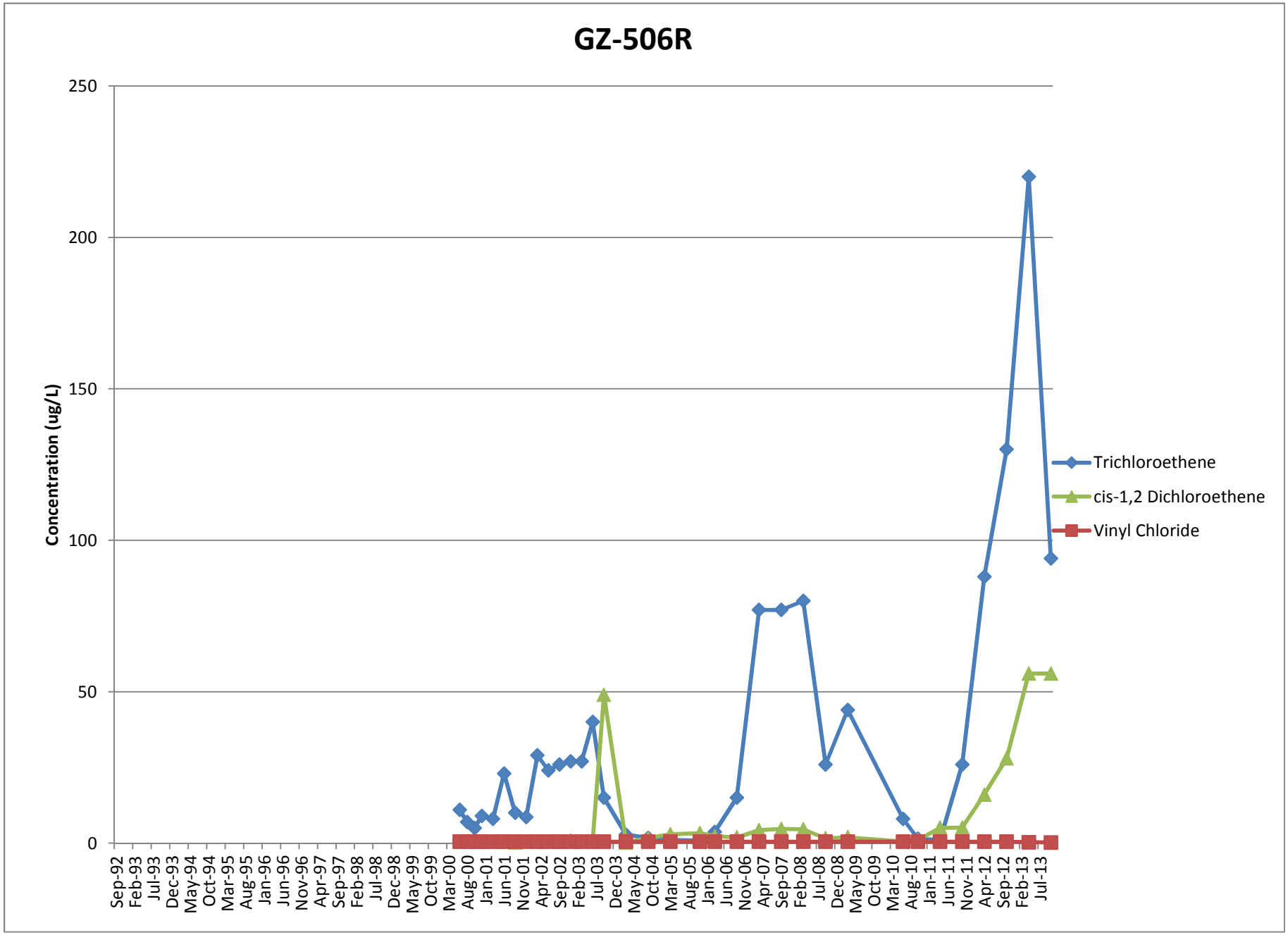
3. VOC = Volatile Organic Compounds.
4. For several wells (GZ-504R, WB-1L, OW-404L, OW-402U, OW-402R, WB-2L, WB-4L, GZ-515U, GZ-506R, and OW-301) the vinyl chloride analysis was based exclusively on non-detect and qualified results. For two wells (GZ-515U and OW-301) this is true for the trichloroethene and the cis-1,2-dichloroethene analyses as well. For some wells (OW-101, OW-304L, OW-403L, and OW-304R), many of the reporting limits were very high. For OW-101, any of the values for vinyl chloride that are greater than 15 ug/L are based on non-detects. For OW-304L, any of the values for vinyl chloride that are greater than 800 ug/L are based on non-detects. For OW-403L, any of the values for vinyl chloride that are greater than 100 ug/L are based on non-detects. For OW-304R, any of the values for vinyl chloride that are greater than 100 ug/L are based on non-detects.

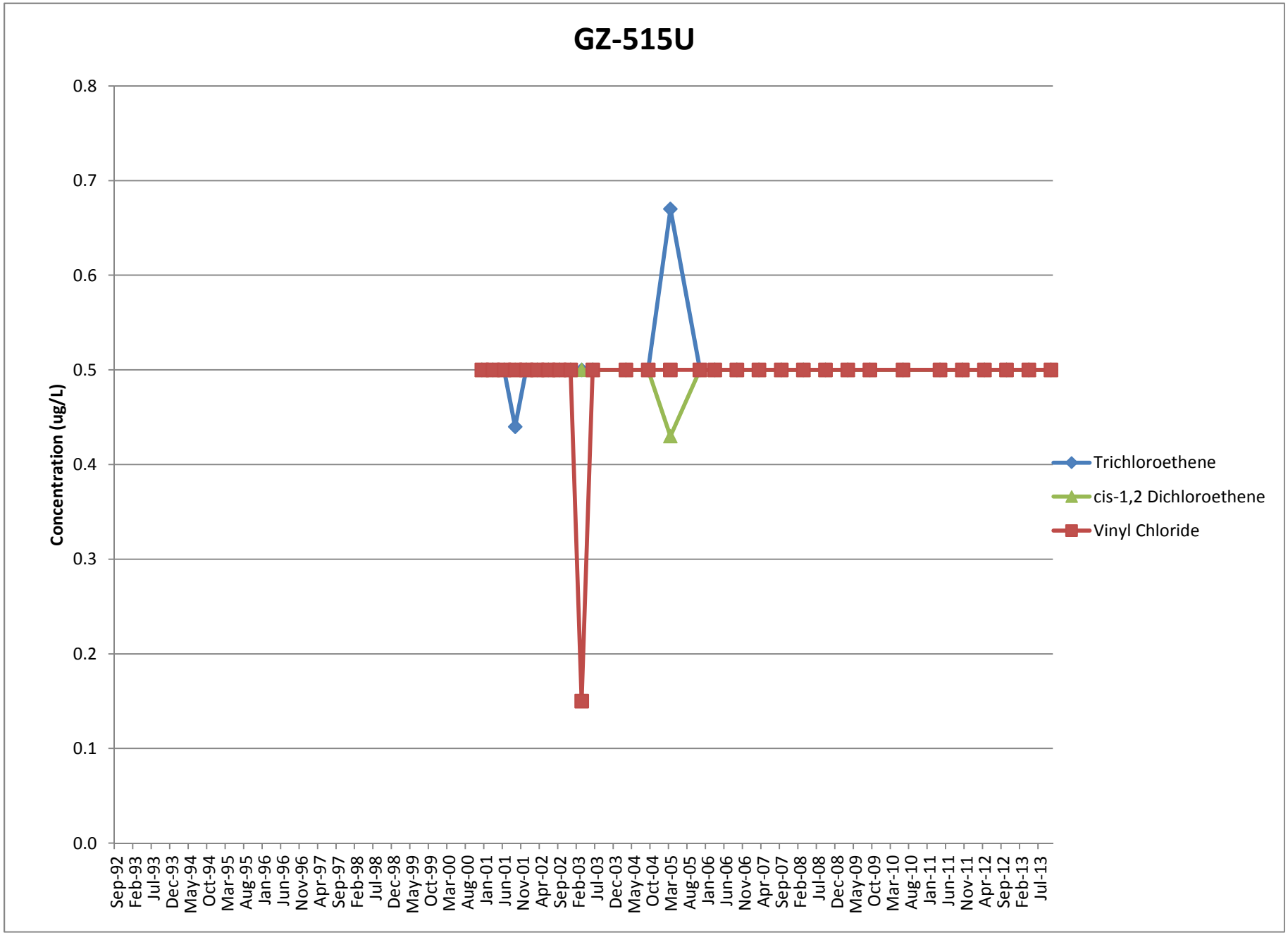

GZ-502L
Concentration (ug/L)
250
200
150
100
50
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-504R
Concentration (ug/L)
25
20
15
10
5
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-505L
Concentration (ug/L)
140
120
100
80
60
40
20
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-505R
Concentration (ug/L)
100
90
80
70
60
50
40
30
20
10
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-506R
Concentration (ug/L)
250
200
150
100
50
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-515U
Concentration (ug/L)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
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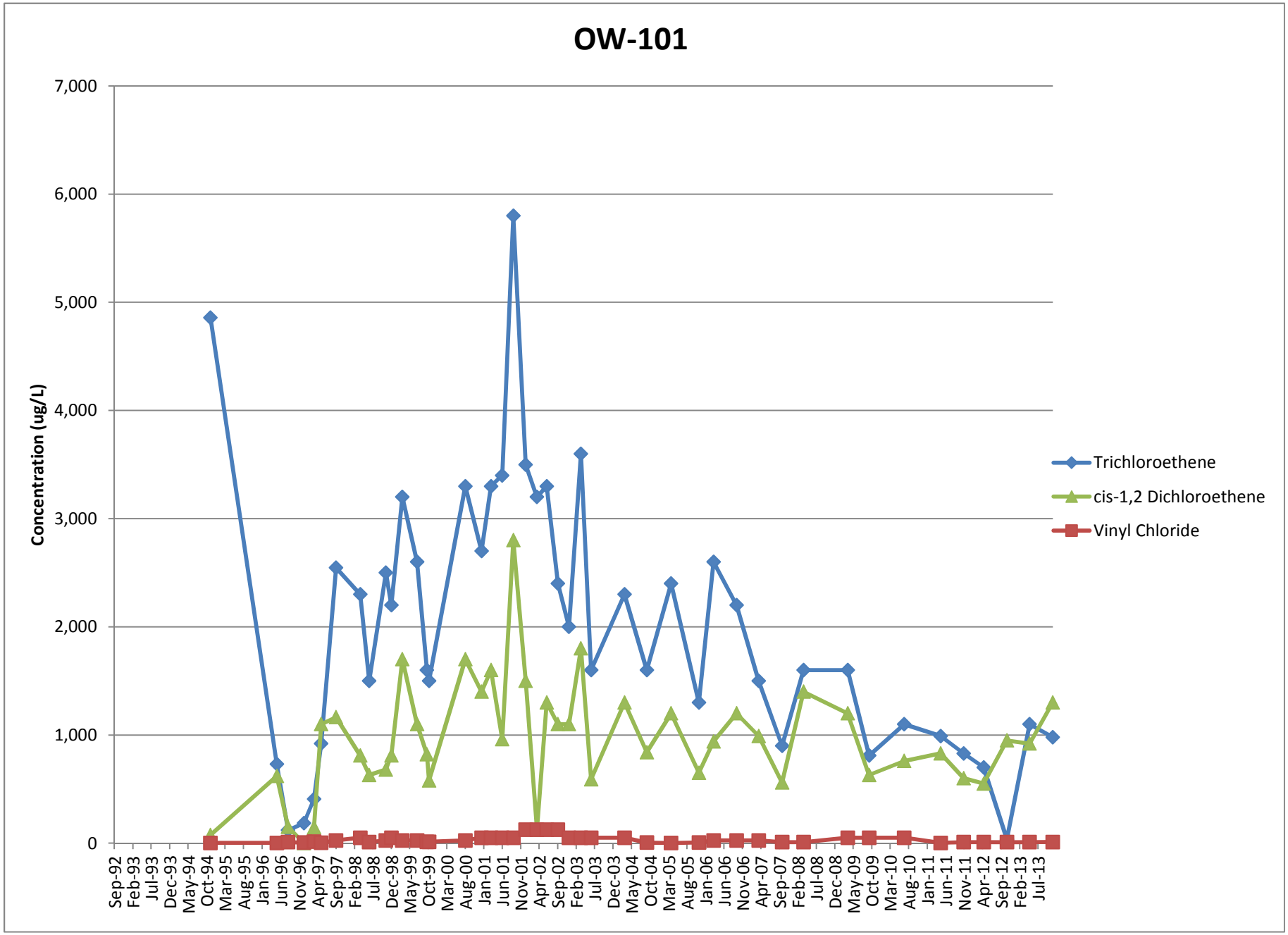
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-101
Concentration (ug/L)
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
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Jun-01
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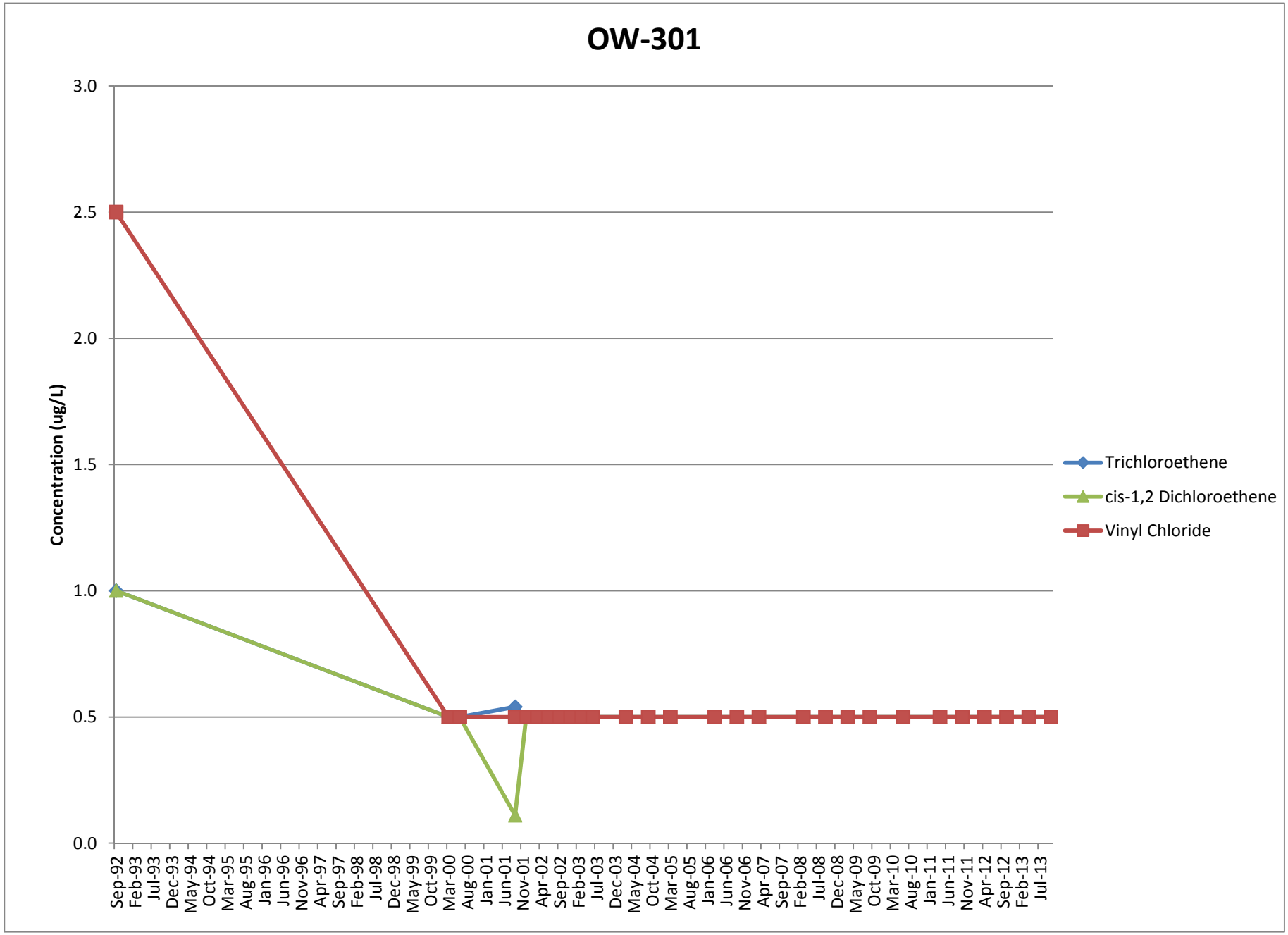
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-301
Concentration (ug/L)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
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Mar-05
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Jan-06
Jun-06
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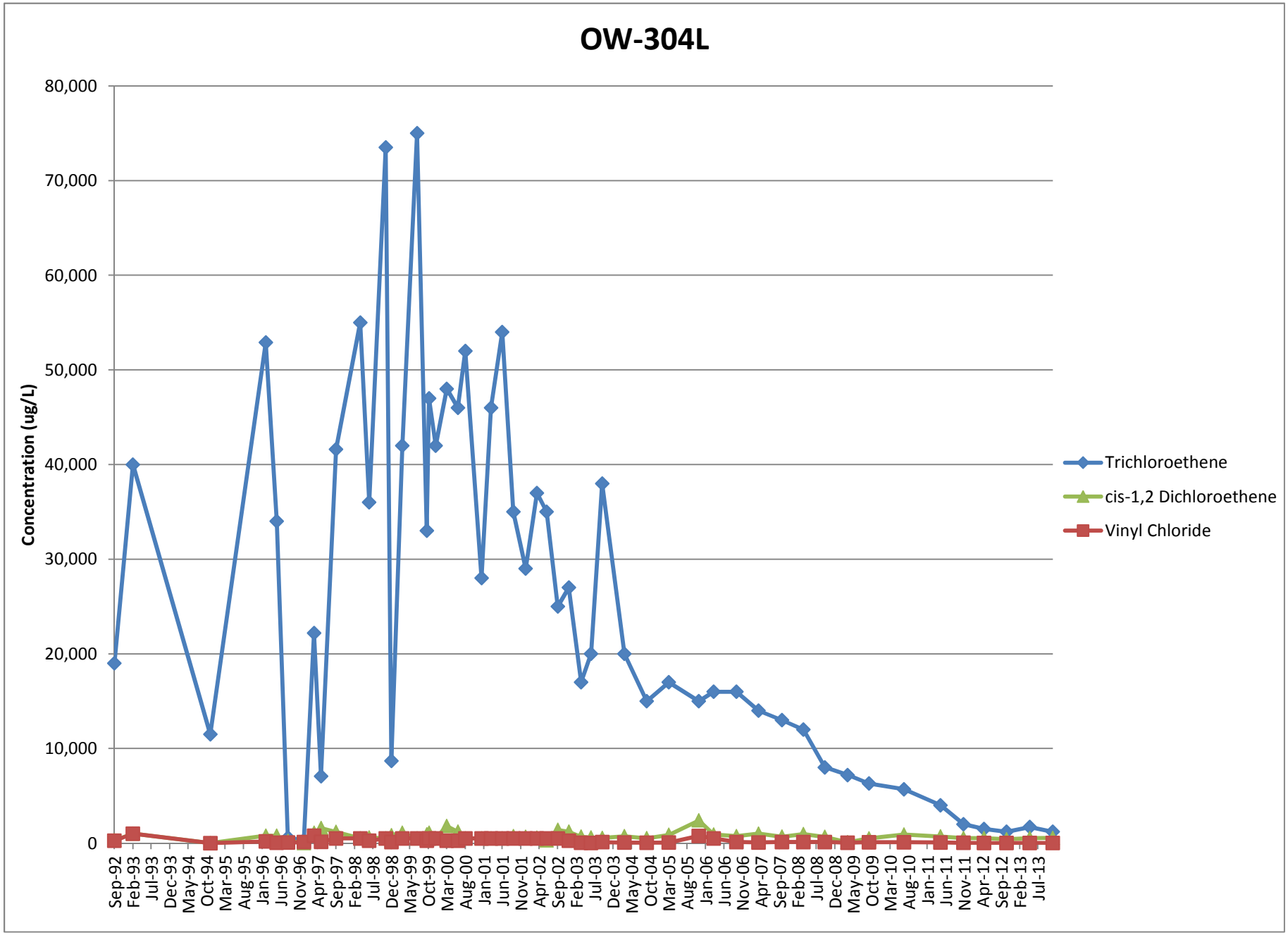
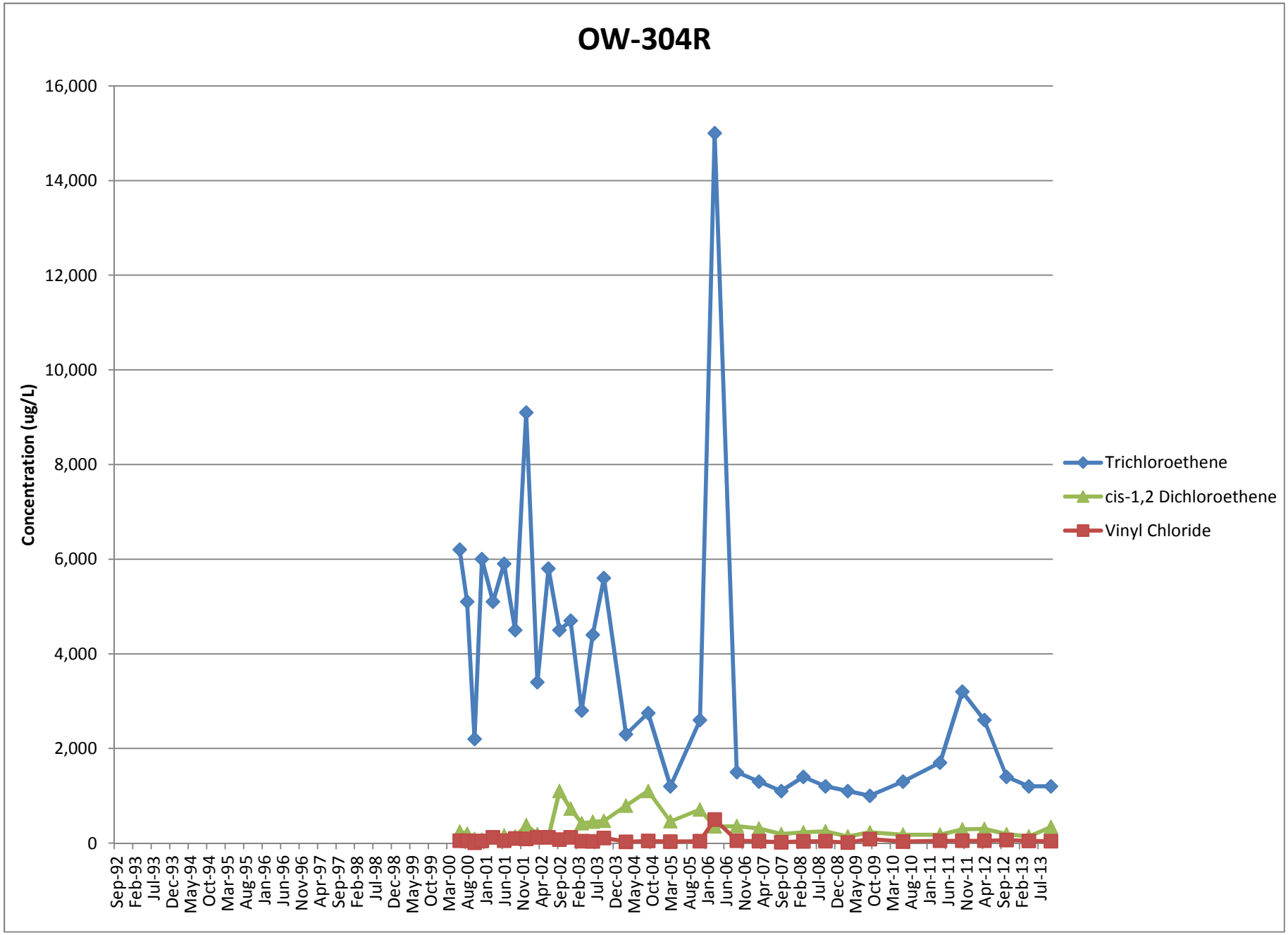
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-304L
Concentration (ug/L)
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-304R
Concentration (ug/L)
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
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Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
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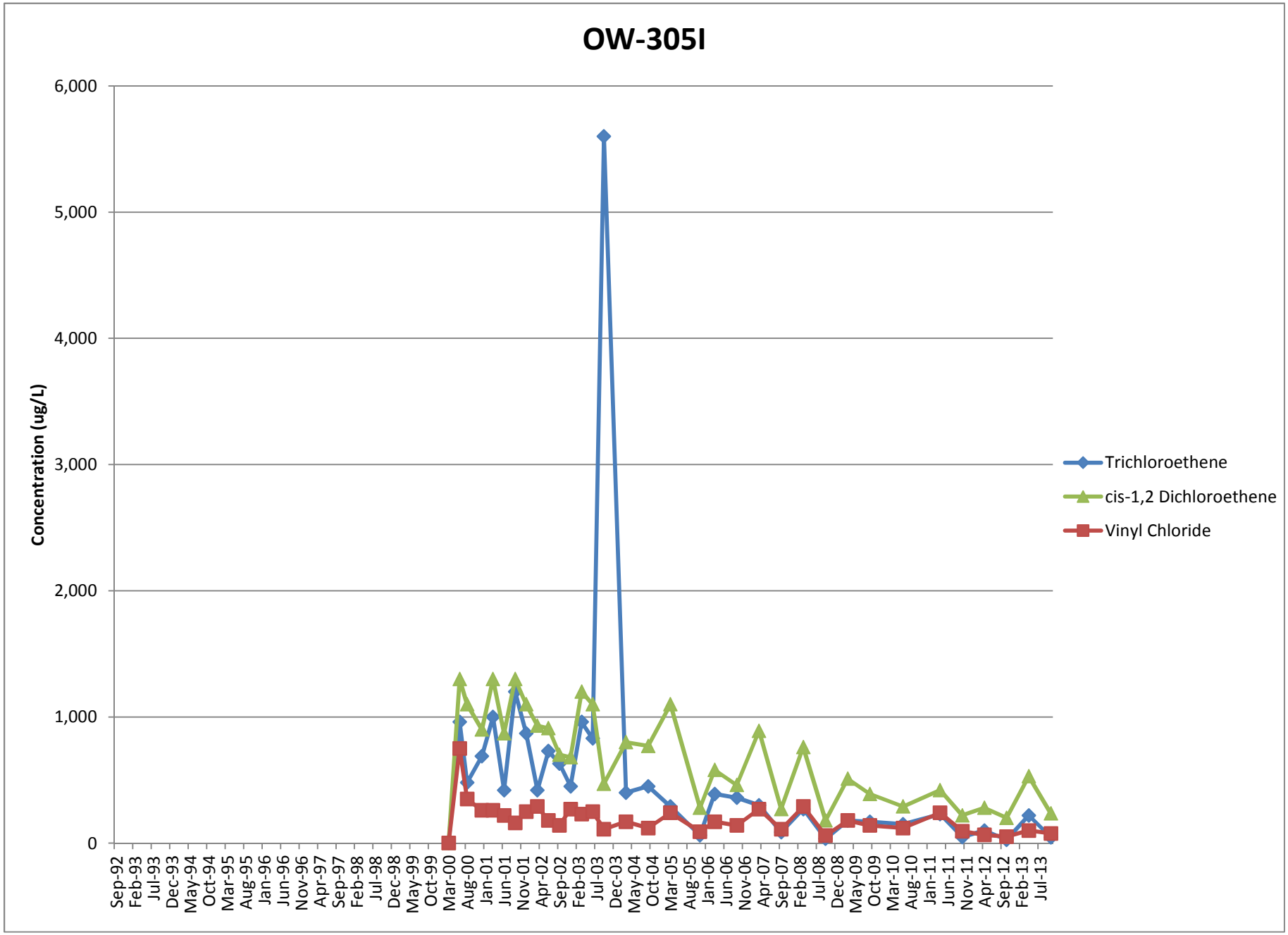
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-305I
Concentration (ug/L)
6,000
5,000
4,000
3,000
2,000
1,000
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
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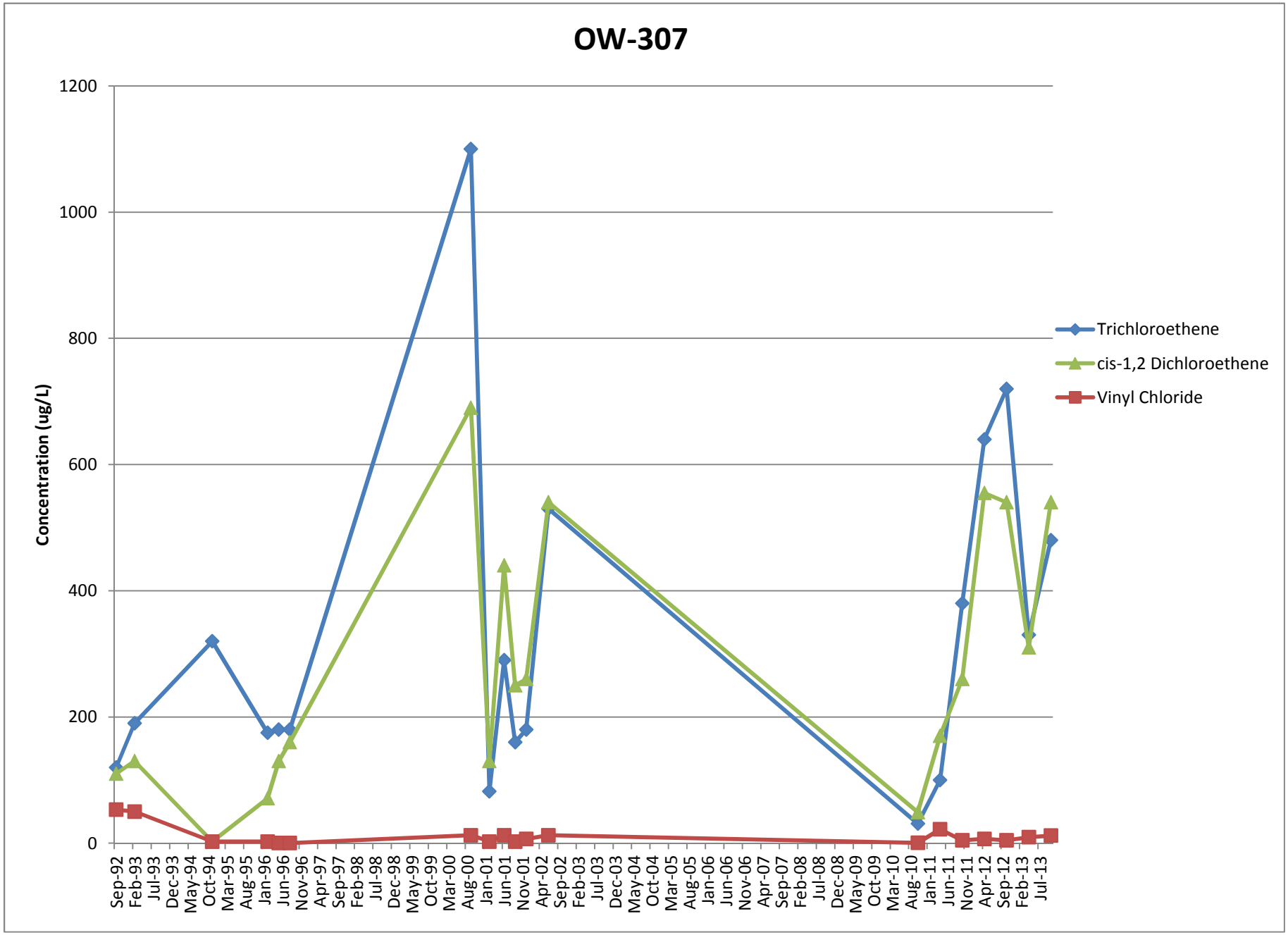
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-307
Concentration (ug/L)
1200
1000
800
600
400
200
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
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May-99
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Mar-00
Aug-00
Jan-01
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Feb-03
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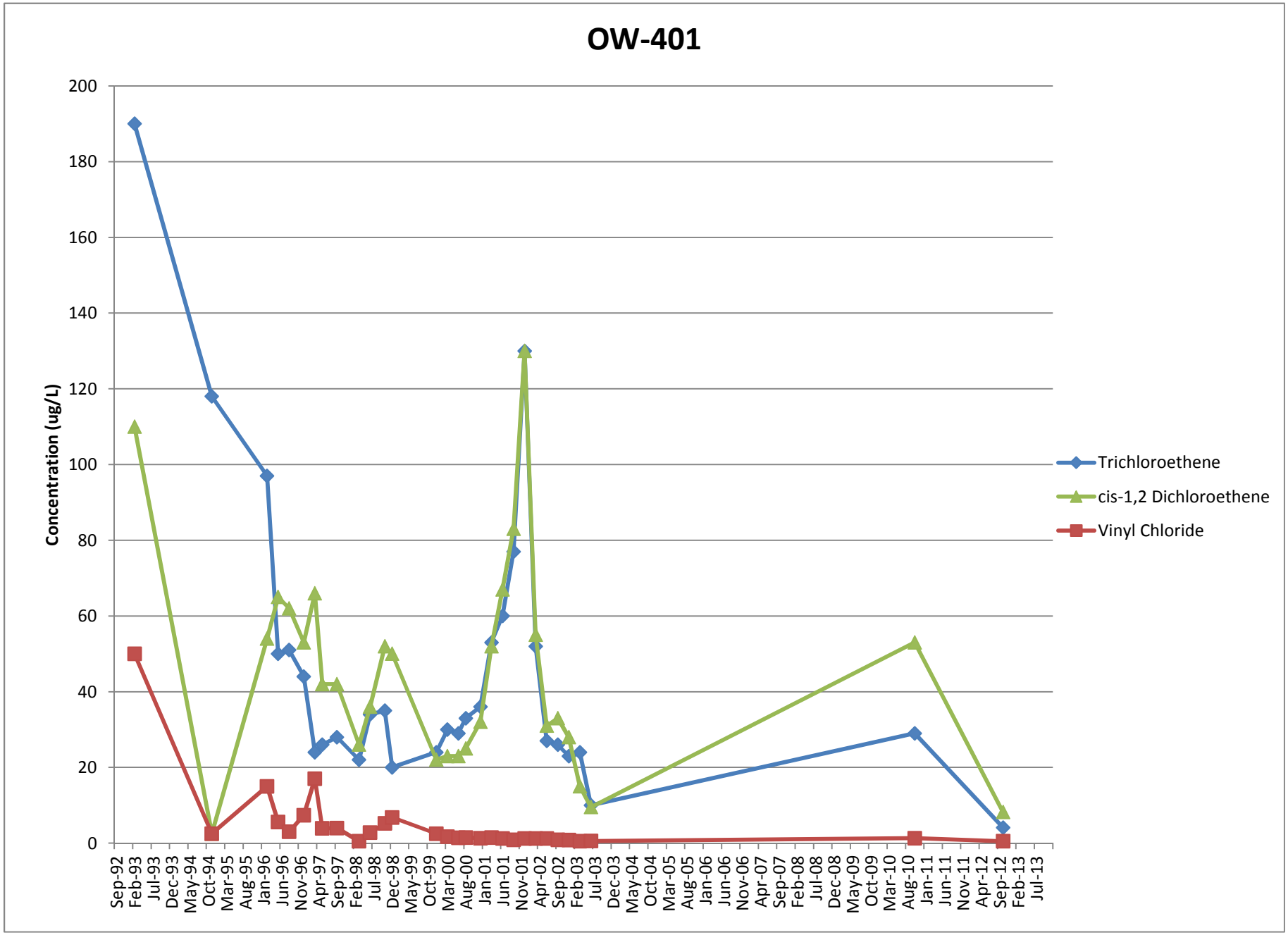
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-401
Concentration (ug/L)
200
180
160
140
120
100
80
60
40
20
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
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Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
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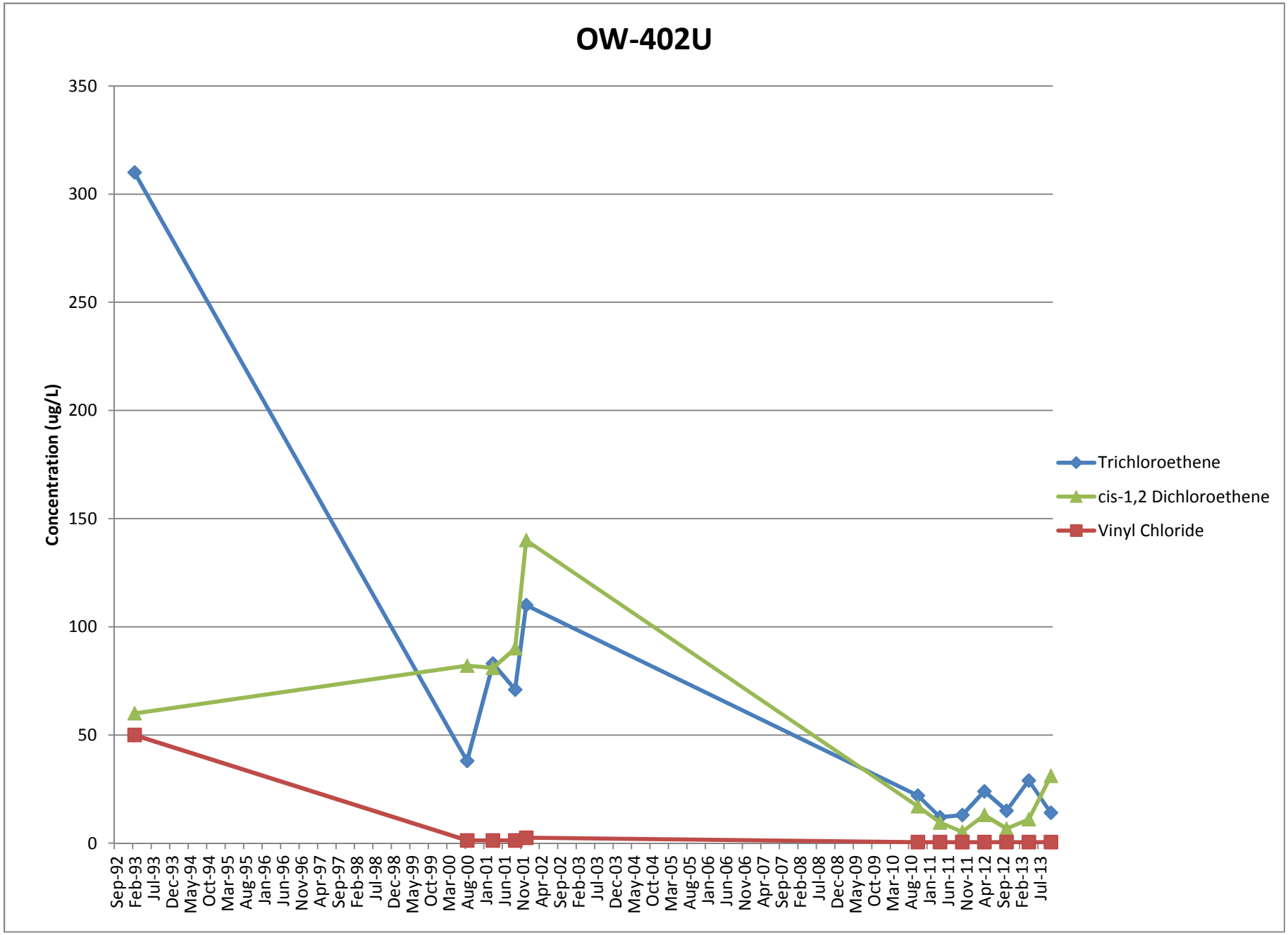
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-402U
Concentration (ug/L)
350
300
250
200
150
100
50
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
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Jan-06
Jun-06
Nov-06
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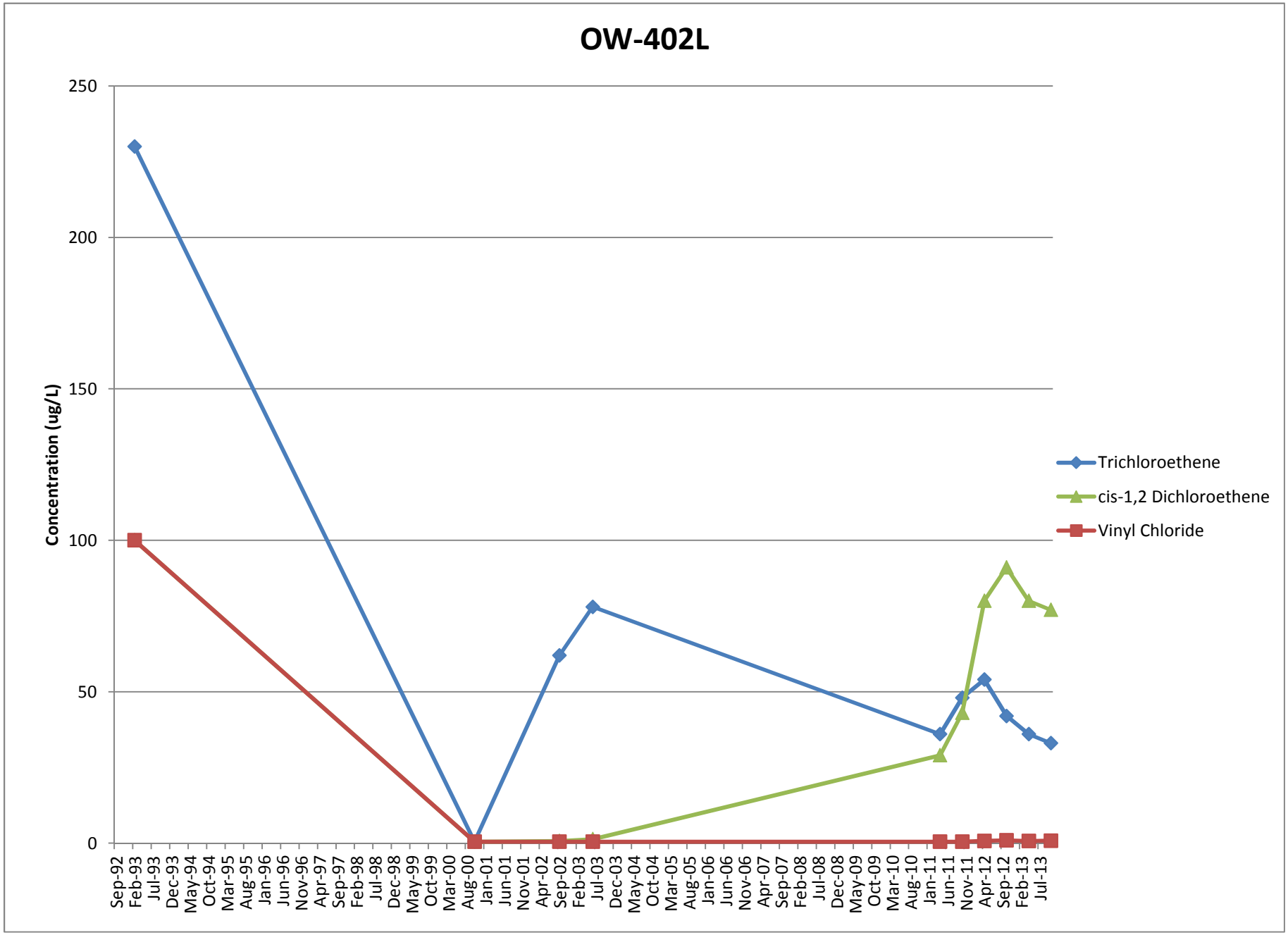
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-402L
Concentration (ug/L)
250
200
150
100
50
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
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Mar-00
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Jun-01
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Apr-02
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Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
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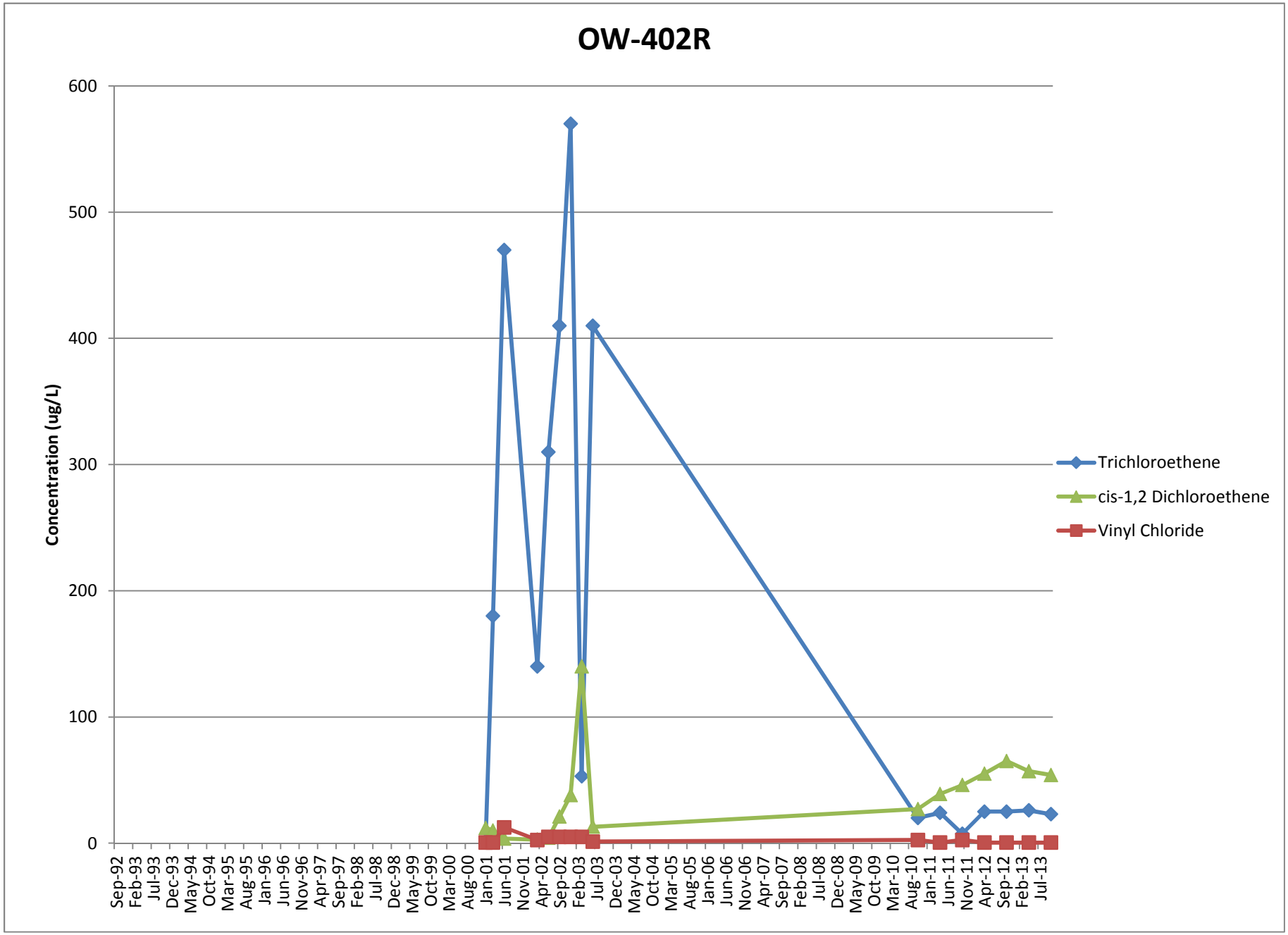
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-402R
Concentration (ug/L)
600
500
400
300
200
100
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
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Mar-00
Aug-00
Jan-01
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Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
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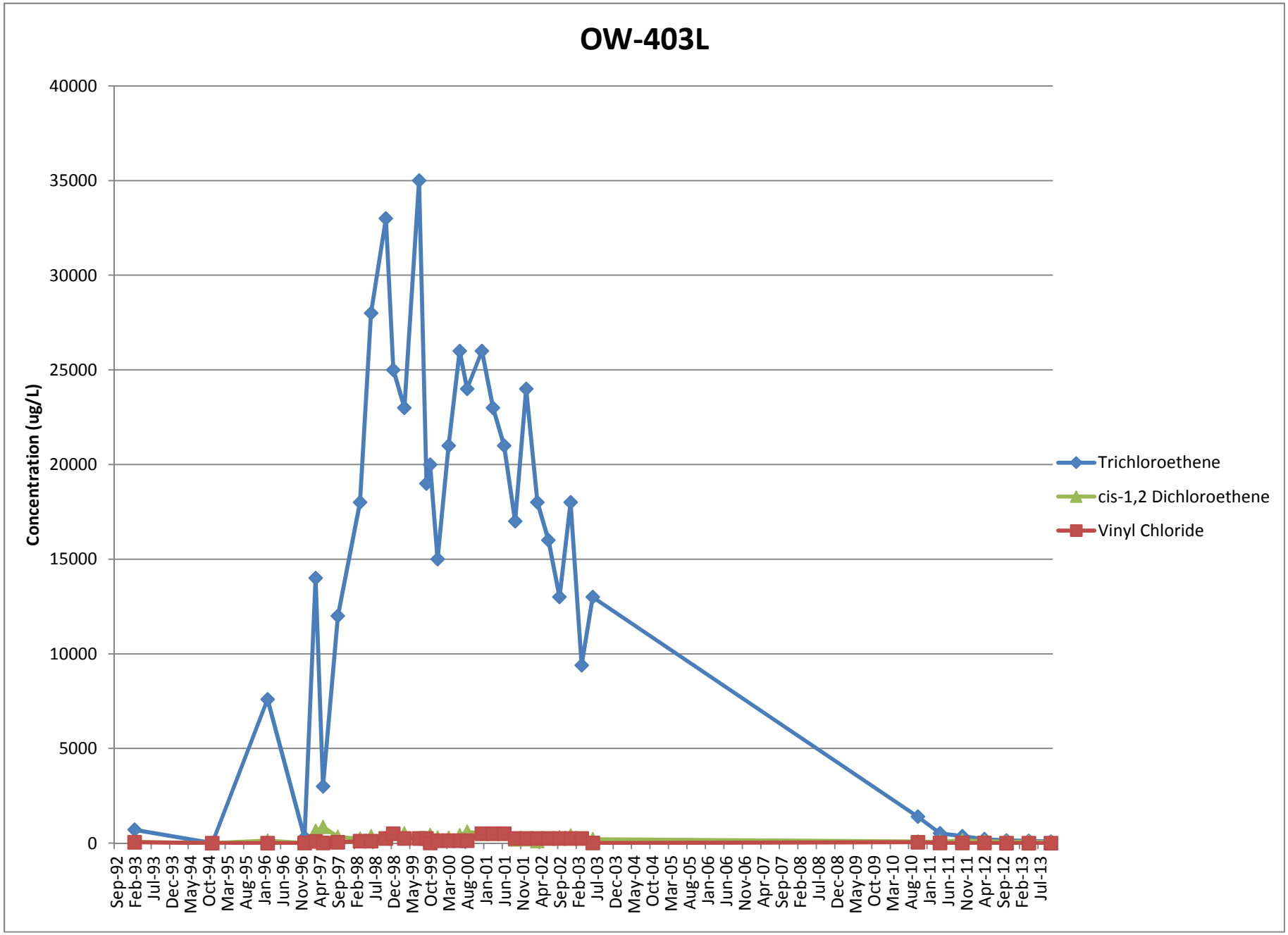
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-403L
Concentration (ug/L)
40000
35000
30000
25000
20000
15000
10000
5000
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
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Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
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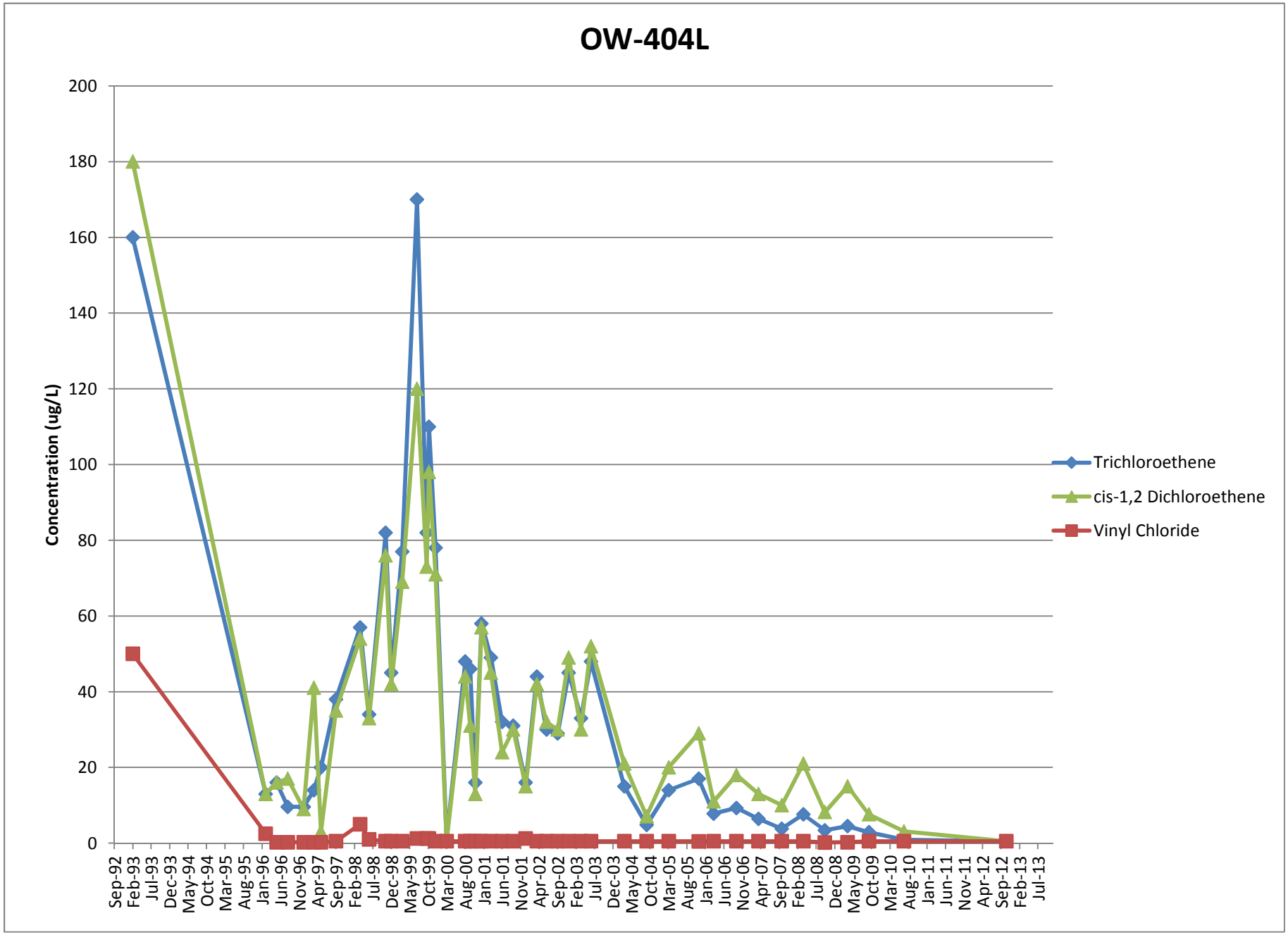
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-404L
Concentration (ug/L)
200
180
160
140
120
100
80
60
40
20
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
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Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
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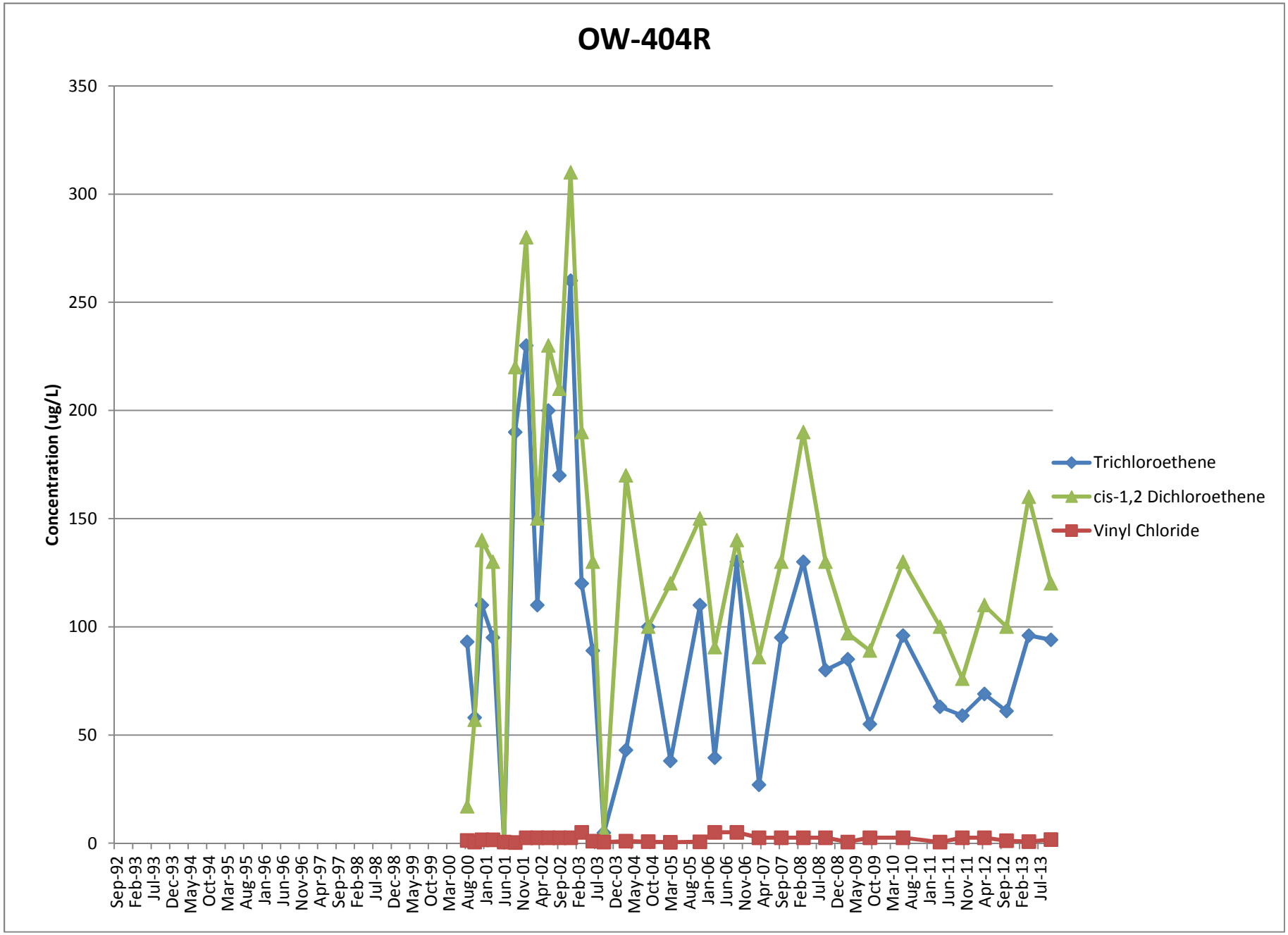
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-404R
Concentration (ug/L)
350
300
250
200
150
100
50
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
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May-99
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Mar-00
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Jul-08
Dec-08
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Oct-09
Mar-10
Aug-10
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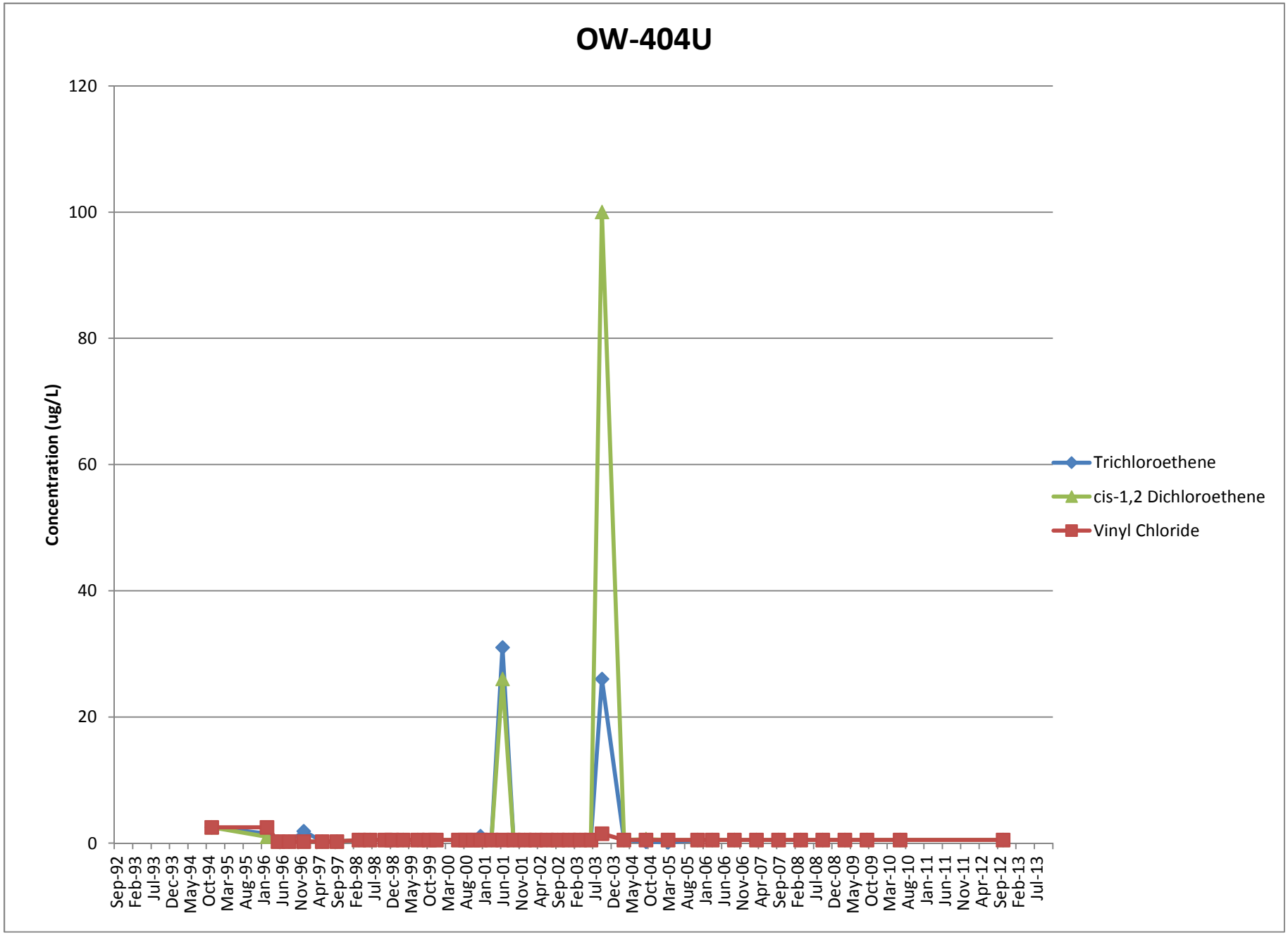
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-404U
Concentration (ug/L)
120
100
80
60
40
20
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
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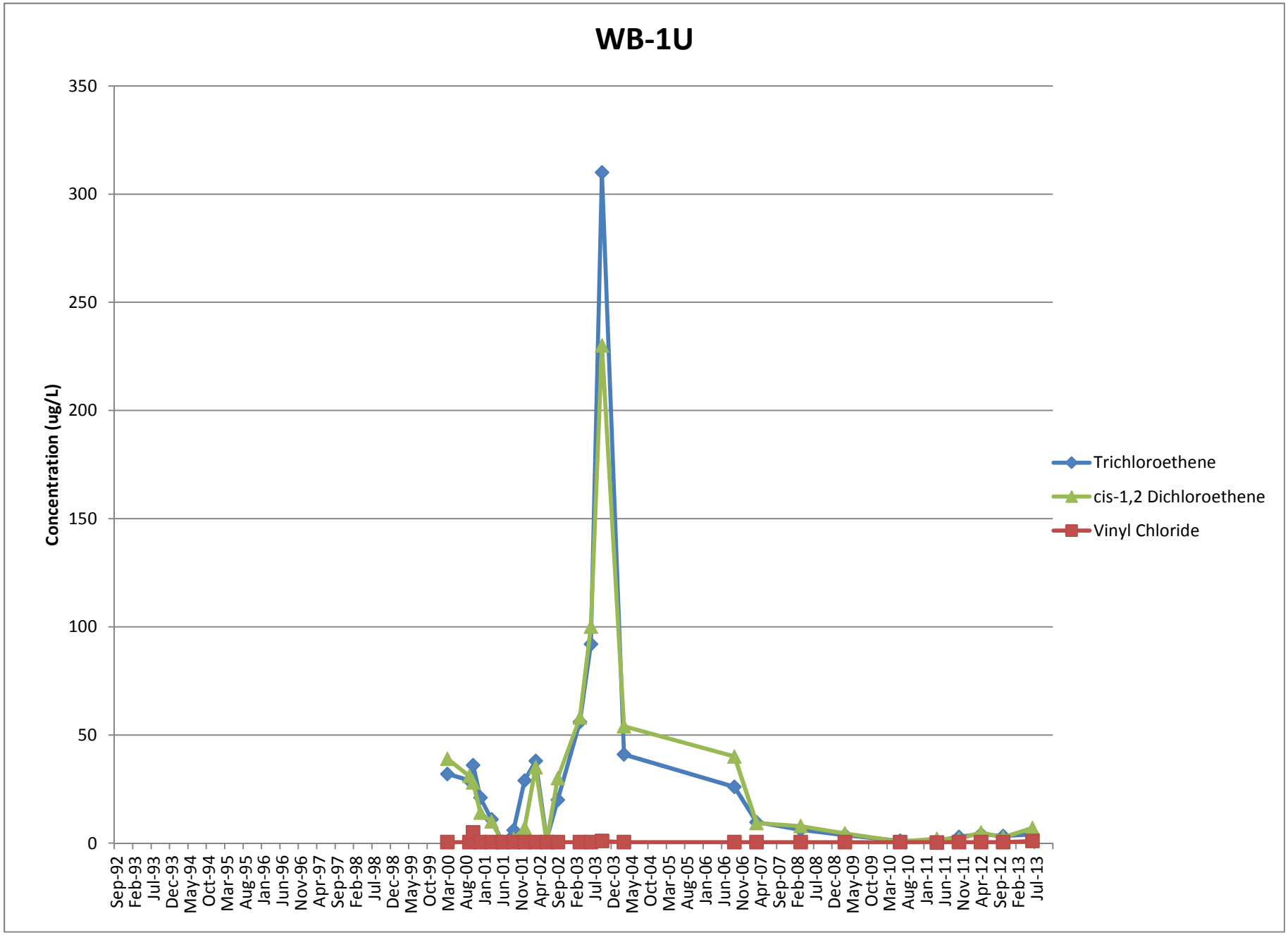
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-1U
Concentration (ug/L)
350
300
250
200
150
100
50
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
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Mar-00
Aug-00
Jan-01
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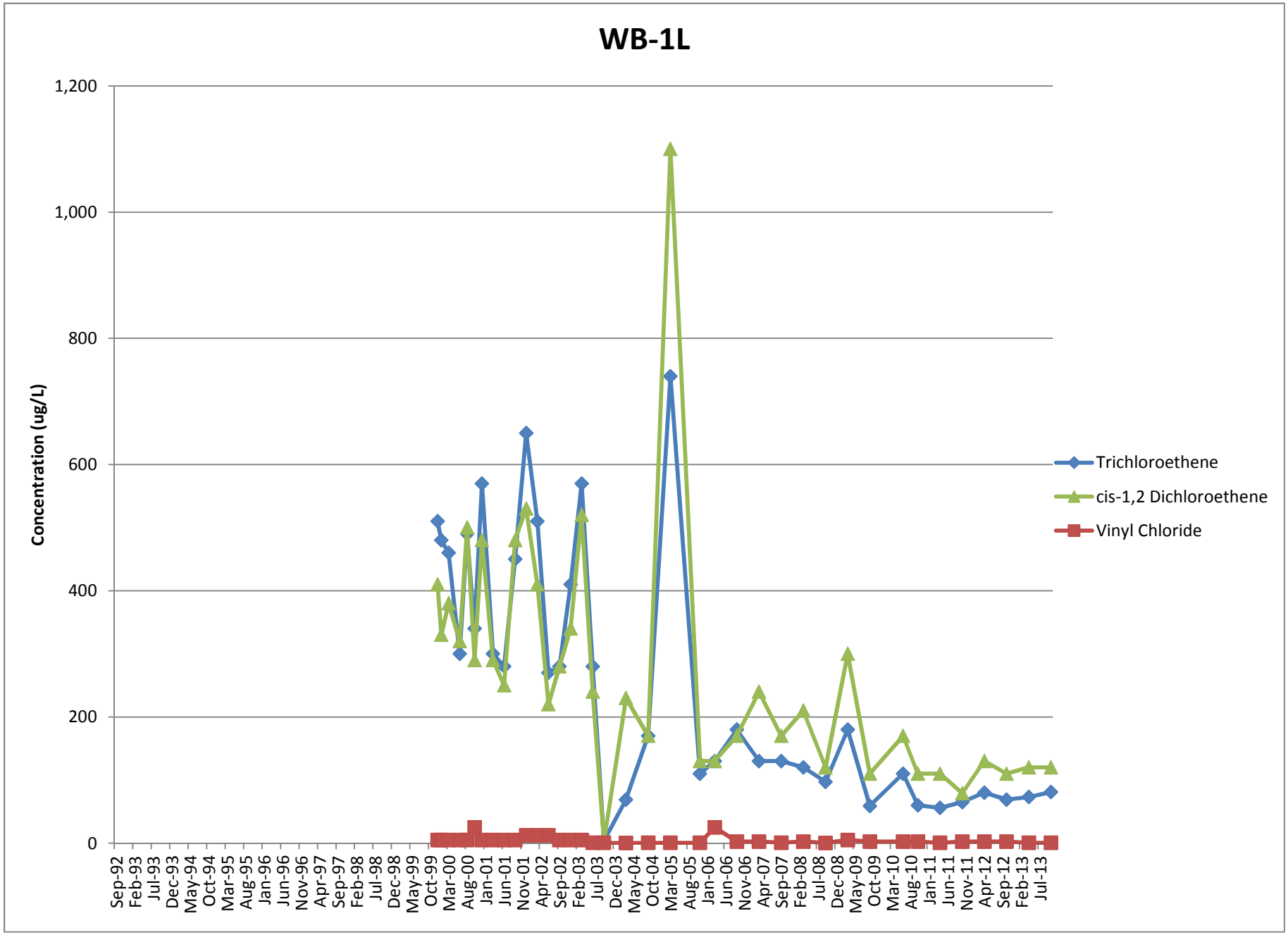
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-1L
Concentration (ug/L)
1,200
1,000
800
600
400
200
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
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Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
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Feb-03
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Jan-06
Jun-06
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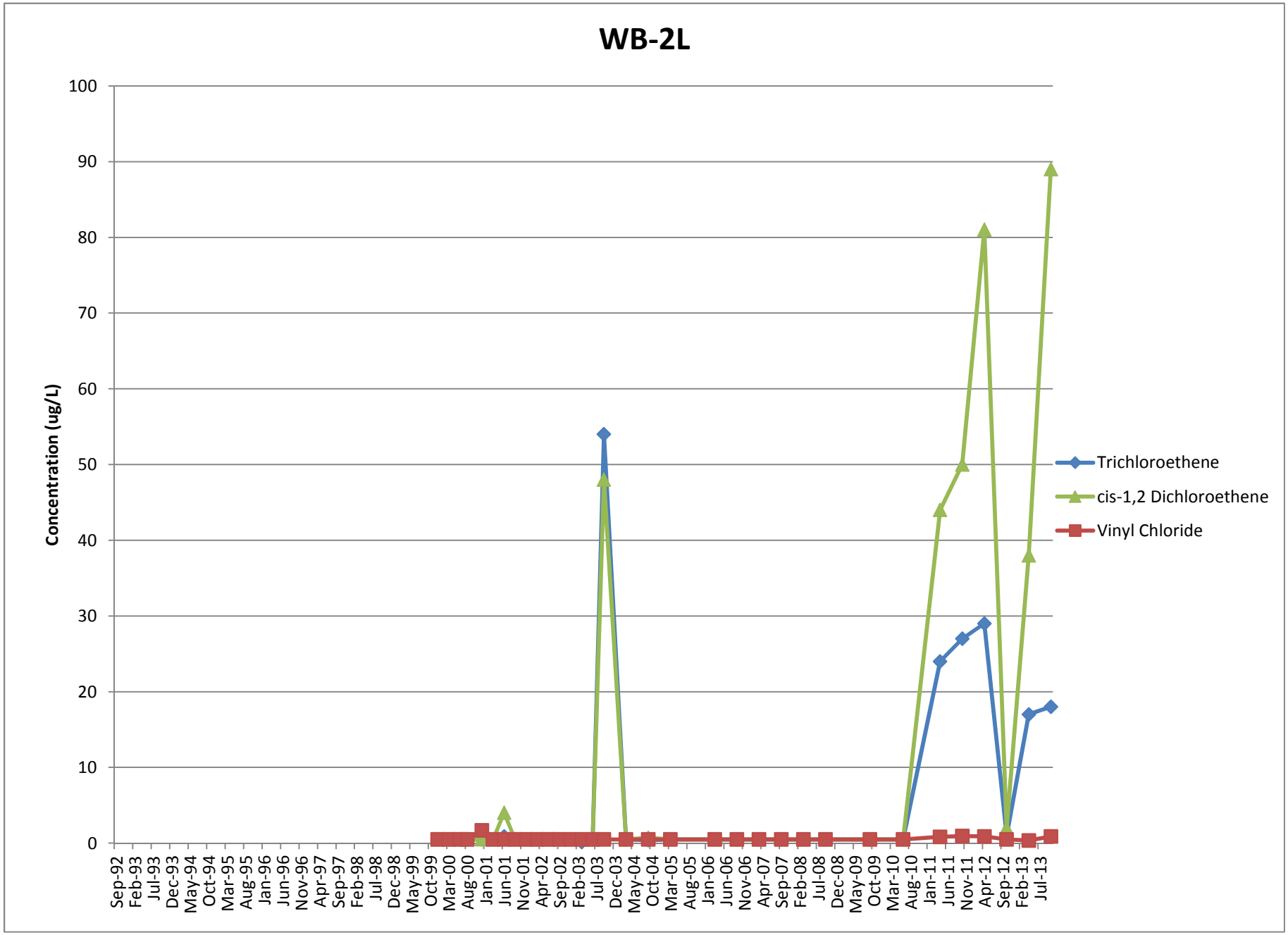
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-2L
Concentration (ug/L)
100
90
80
70
60
50
40
30
20
10
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
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May-99
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Mar-00
Aug-00
Jan-01
Jun-01
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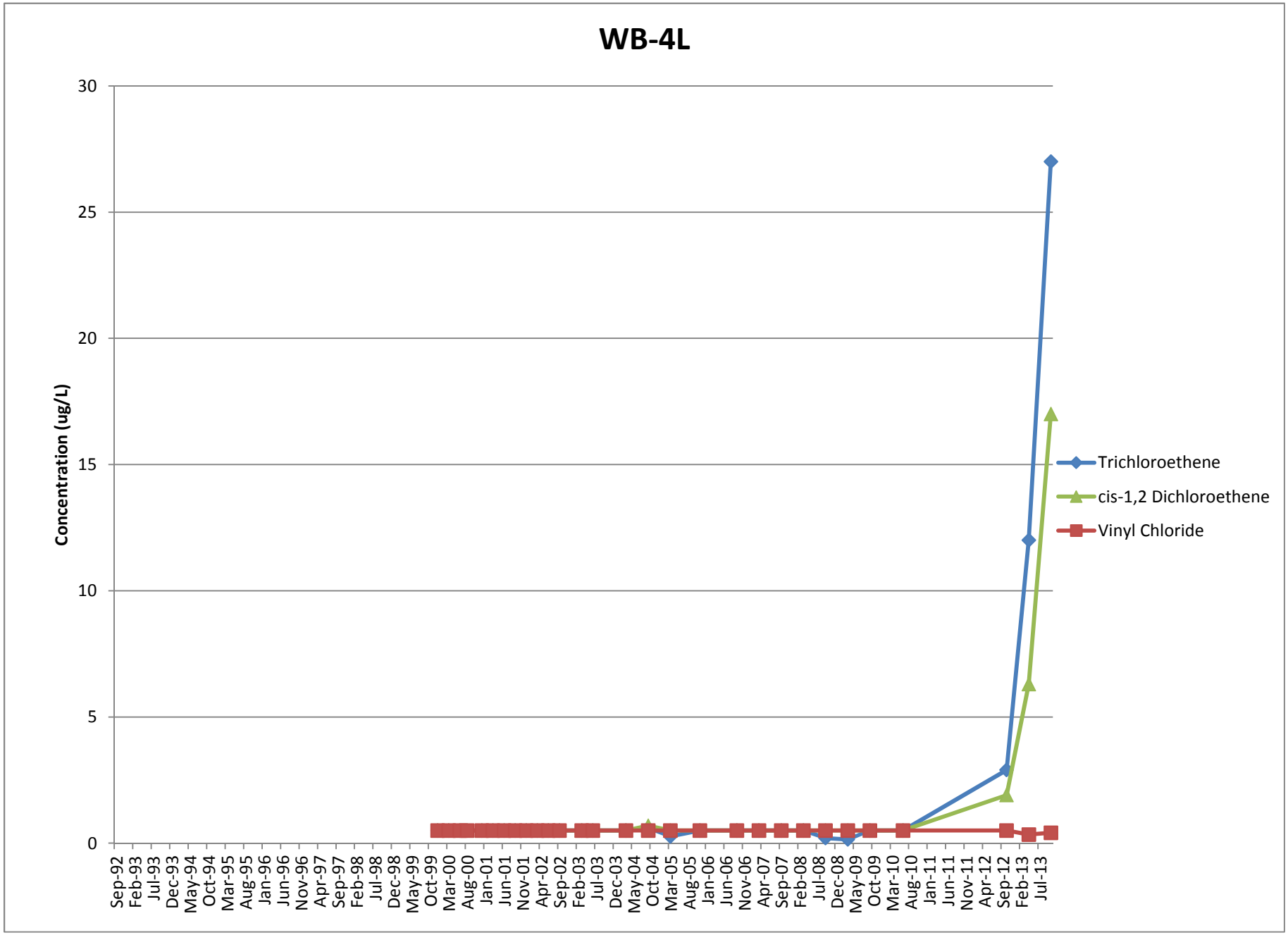
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-4L
Concentration (ug/L)
30
25
20
15
10
5
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
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Oct-04
Mar-05
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Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride

APPENDIX C

VOC MOLARITY TREND ANALYSIS

Index of VOC Molarity Trend Analysis Charts
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

File No. 01.0024065.14

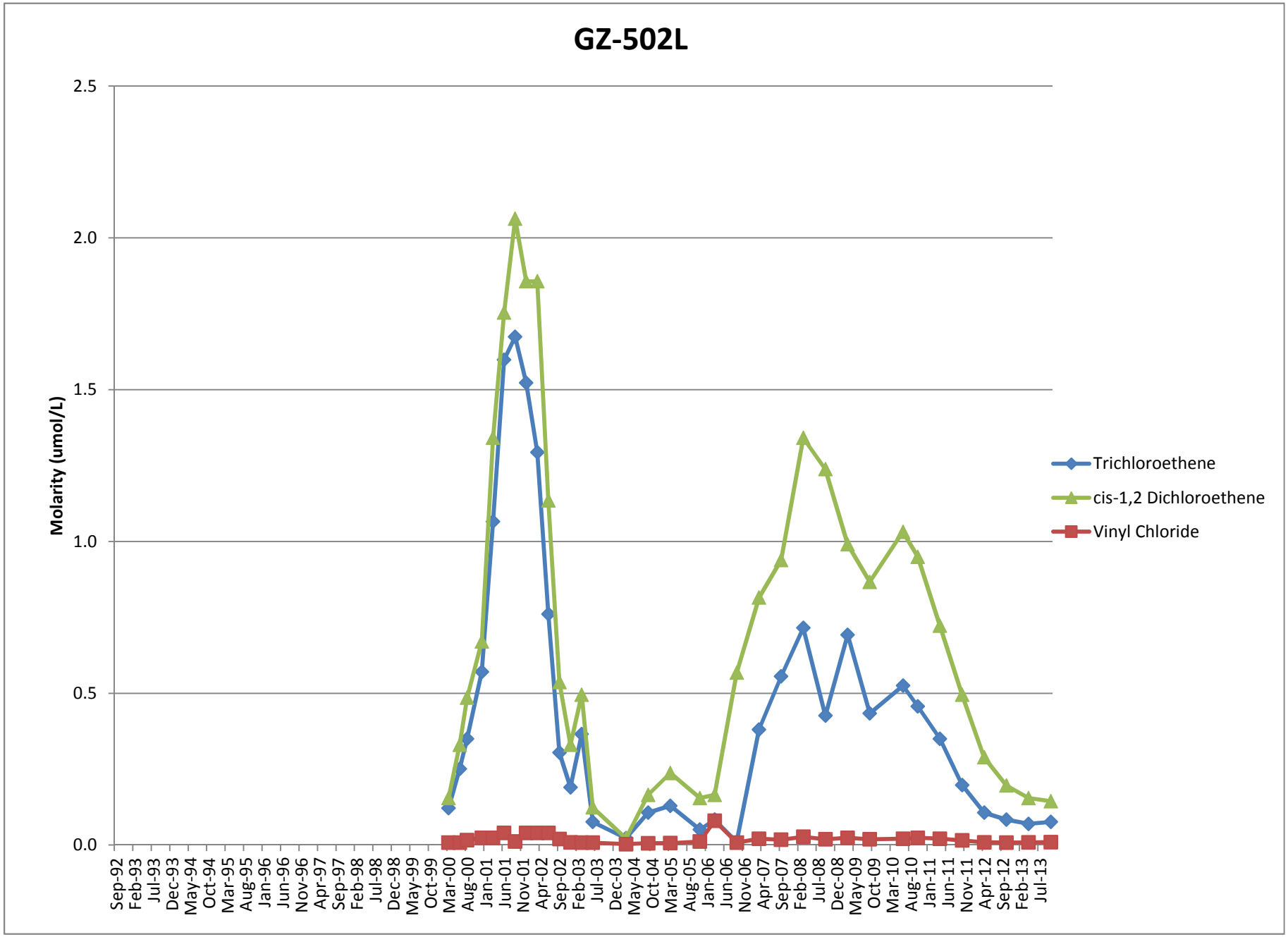
GZ-502L: Screened in the Saprolite Unit	Page 1
GZ-504R: Screened in the Bedrock Unit	Page 2
GZ-505L: Screened in the Saprolite Unit	Page 3
GZ-505R: Screened in the Bedrock Unit	Page 4
GZ-506R: Screened in the Bedrock Unit	Page 5
GZ-515U: Screened in the Alluvium Unit	Page 6
OW-101: Screened in the Fill Unit	Page 7
OW-301: Screened in the Saprolite Unit	Page 8
OW-304L: Screened in the Saprolite Unit	Page 9
OW-304R: Screened in the Bedrock Unit	Page 10
OW-305I: Screened in the Alluvium Unit	Page 11
OW-307: Screened in the Saprolite Unit	Page 12
OW-401: Screened in the Saprolite Unit	Page 13
OW-402U: Screened in the Fill Unit	Page 14
OW-402L: Screened in the Saprolite Unit	Page 15
OW-402R: Screened in the Bedrock Unit	Page 16
OW-403L: Screened in the Saprolite Unit	Page 17
OW-404L: Screened in the Saprolite Unit	Page 18
OW-404R: Screened in the Bedrock Unit	Page 19
OW-404U: Screened in the Fill Unit	Page 20
WB-1U: Screened in the Fill Unit	Page 21
WB-1L: Screened in the Saprolite Unit	Page 22
WB-2L: Screened in the Saprolite Unit	Page 23
WB-4L: Screened in the Saprolite Unit	Page 24

Notes:

1. In instances where a constituent was not detected, half of the reporting limit was used as the molarity.
2. Data that were reported with qualifiers were treated as if they were not reported with qualifiers in this analysis. In general, this led to a more conservative analysis.
3. VOC = Volatile Organic Compounds; TCE = Trichloroethene; DCE = cis-1,2-Dichloroethene; VC = Vinyl Chloride; ug/L = micrograms per liter; ug/umol = micrograms per micromole.

4. For several wells (GZ-504R, WB-1L, OW-404L, OW-402U, OW-402R, WB-2L, WB-4L, GZ-515U, GZ-506R, and OW-301) the VC analysis was based exclusively on non-detect and qualified results. For two wells (GZ-515U and OW-301) this is true for the TCE and the DCE analyses as well. For OW-101, OW-304L, OW-403L, and OW-304R for VC, many of the reporting limits are very high compared to the detected molarities.
5. Molecular weights for the carbon (C – 12.01 ug/umol), hydrogen (H – 1.01 ug/umol), and chloride (Cl – 35.45 ug/umol) atoms were used to calculate the molecular weights of TCE (C_2HCl_3 – 131.38 ug/umol), DCE ($C_2H_2Cl_2$ – 96.94 ug/umol), and VC (C_2H_3Cl – 62.50 ug/umol).
6. Molarity (in umol/L) was calculated by dividing the concentration (in ug/L) by the molecular weight (in ug/umol).

J:\23,000-24,999\24065\24065-14.JAC\Semi-Annual Reports\Q3-Q4 2014\Appendices\Appendix C - Molarity Trend Figures\Index for Molarity Charts.docx


GZ-502L
Molarity (umol/L)
2.5
2.0
1.5
1.0
0.5
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
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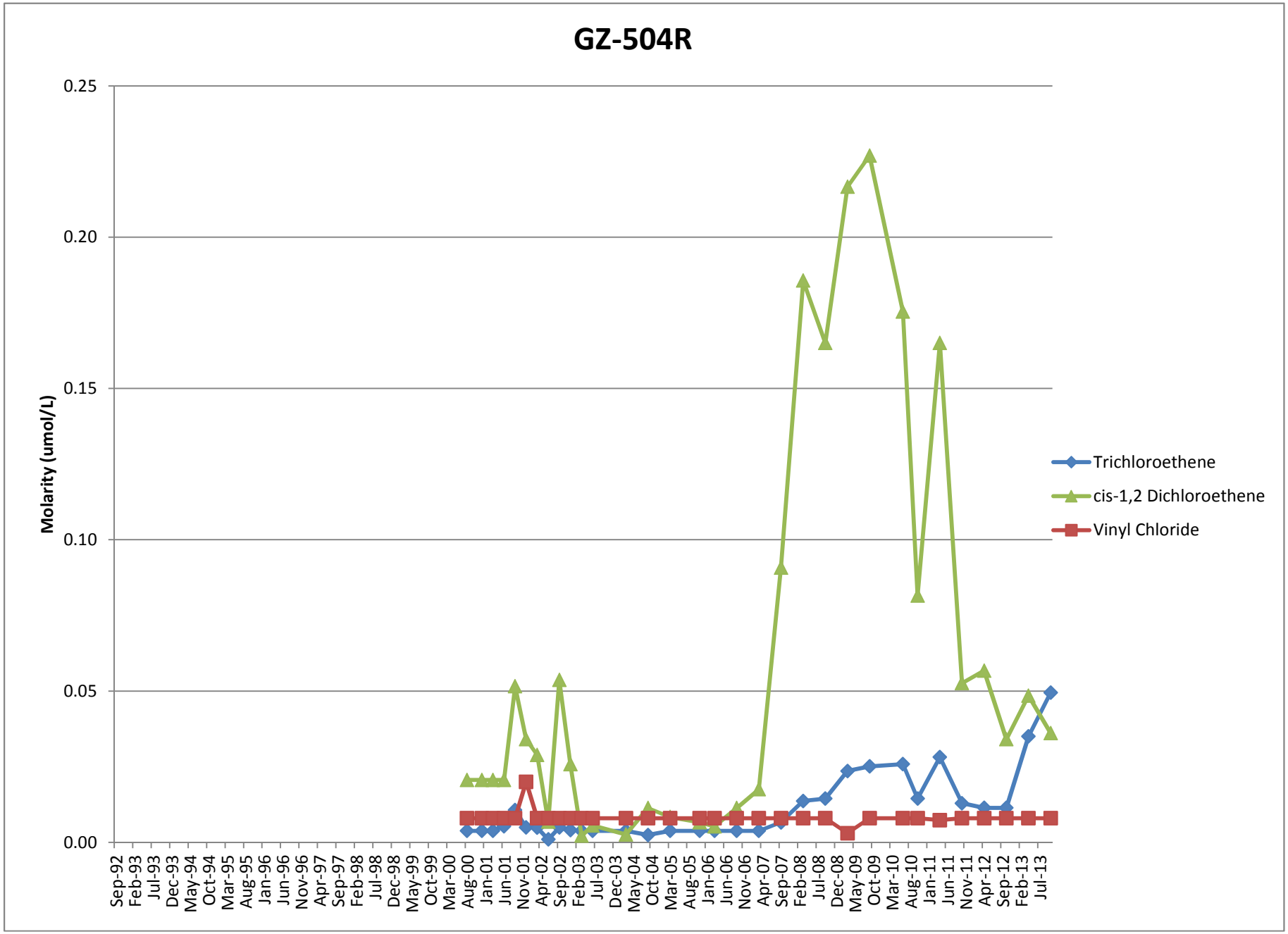
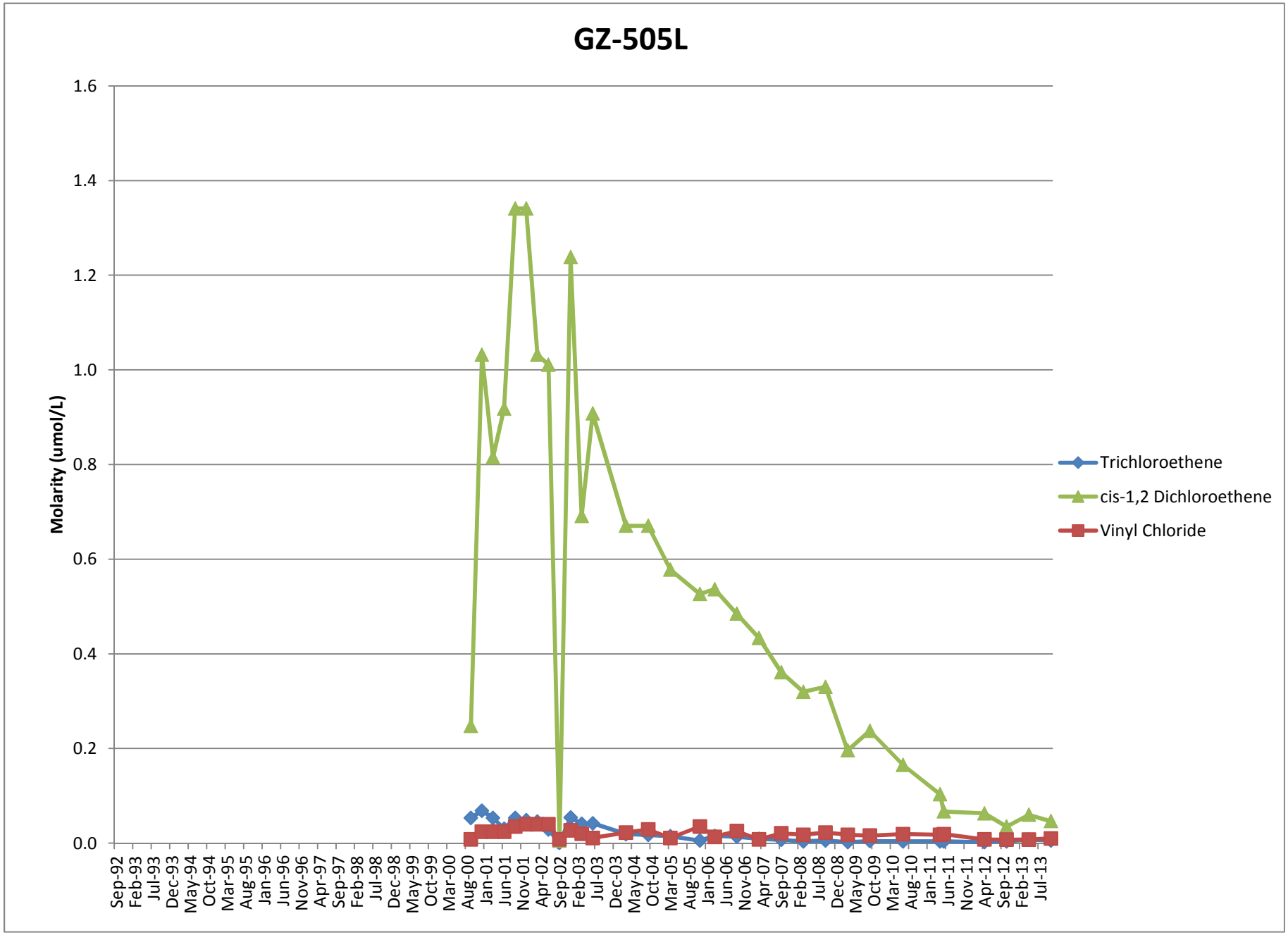
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-504R
Molarity (umol/L)
0.25
0.20
0.15
0.10
0.05
0.00
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-505L
Molarity (umol/L)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
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Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
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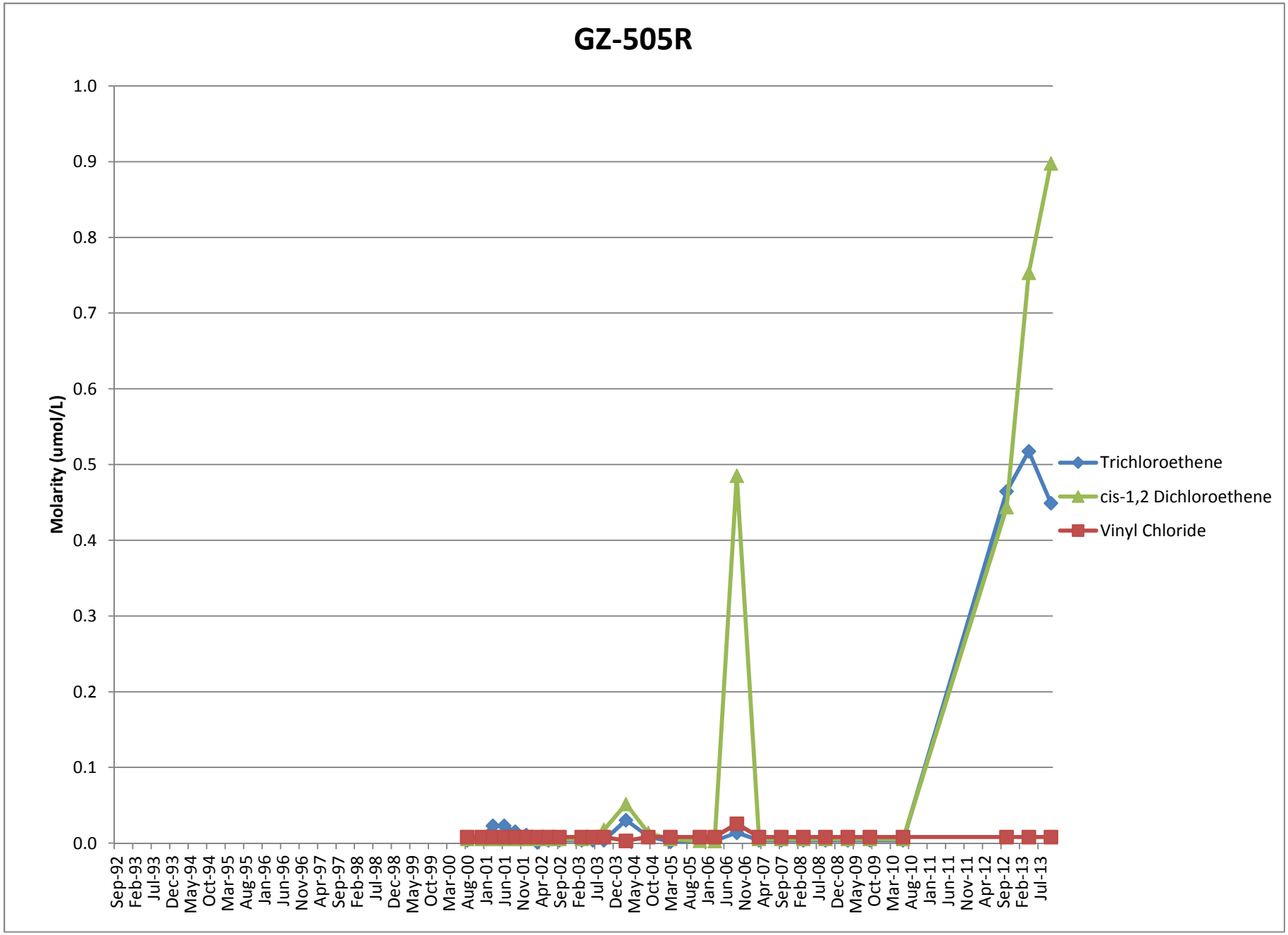
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-505R
Molarity (umol/L)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
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May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
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May-04
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Jan-06
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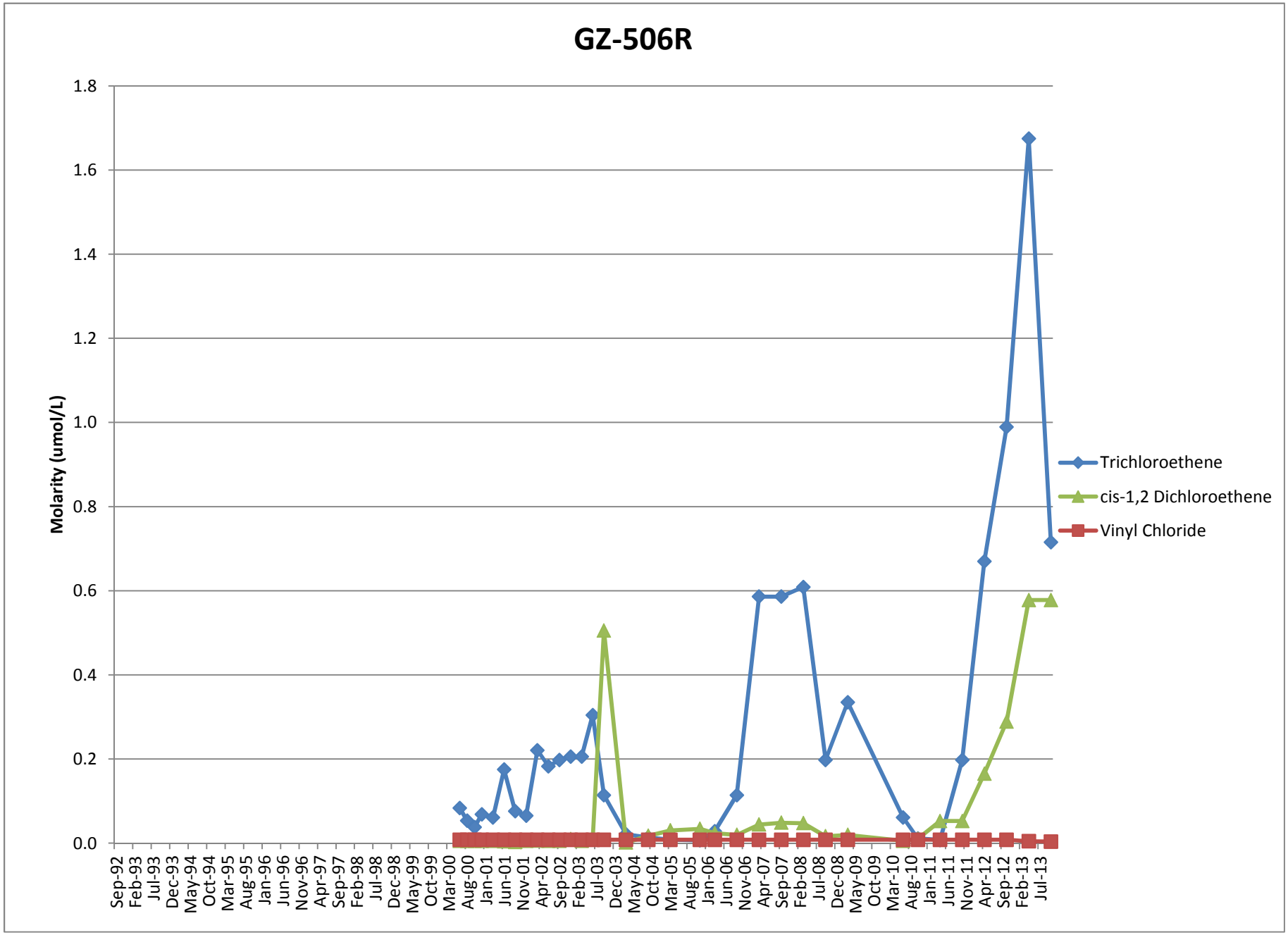
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-506R
Molarity (umol/L)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
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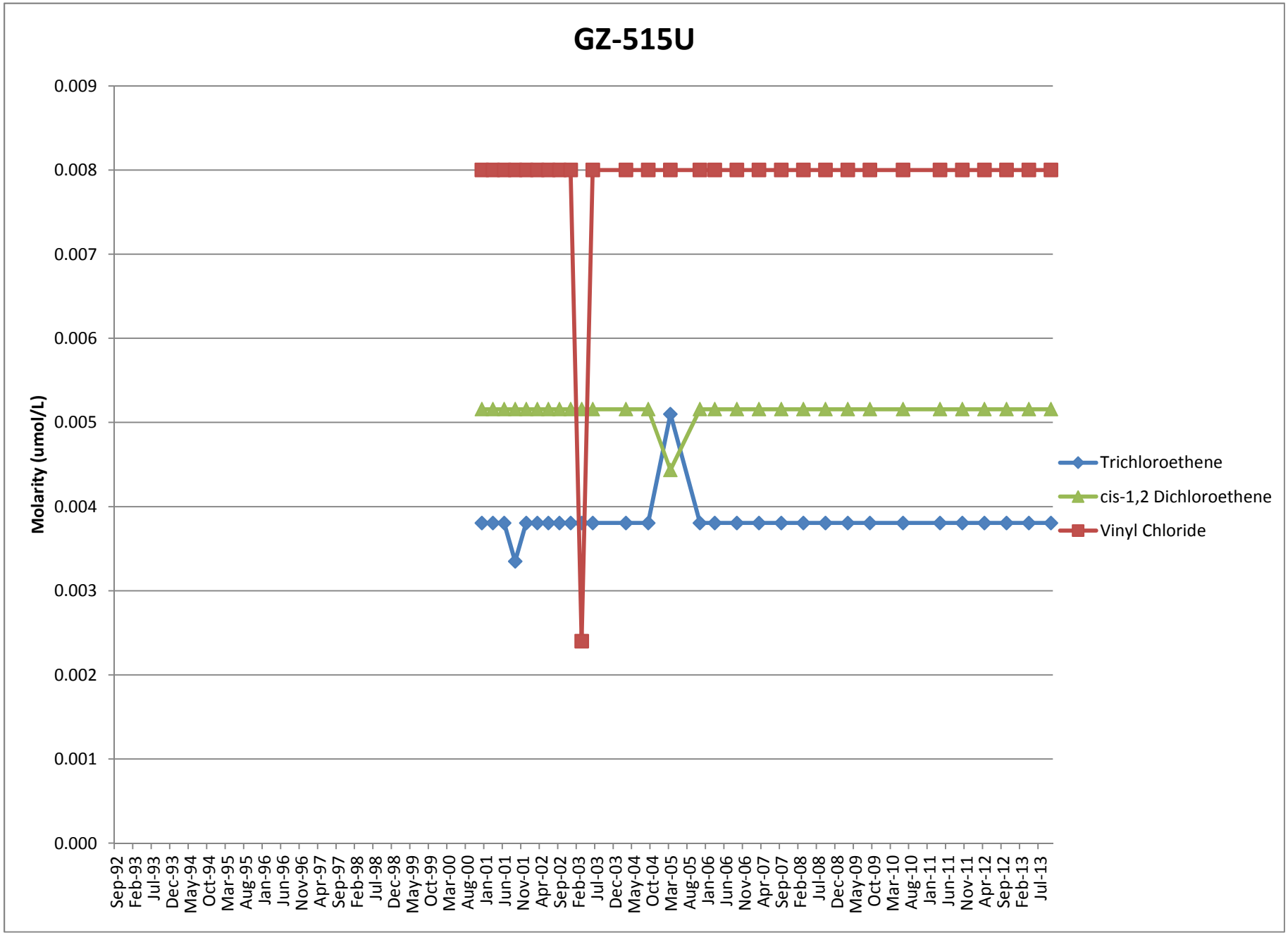
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


GZ-515U
Molarity (umol/L)
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
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Oct-09
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Aug-10
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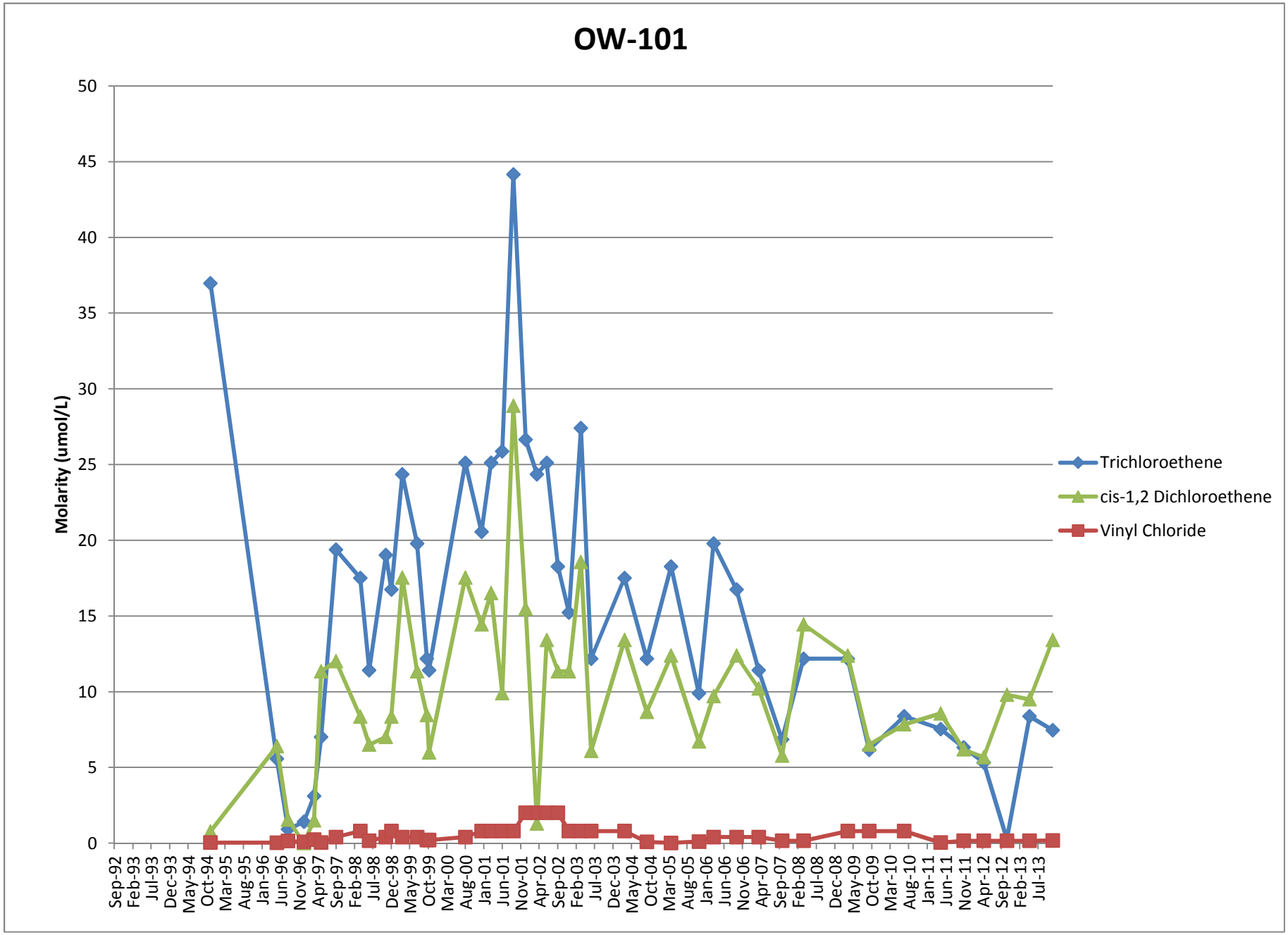
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-101
Molarity (umol/L)
50
45
40
35
30
25
20
15
10
5
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
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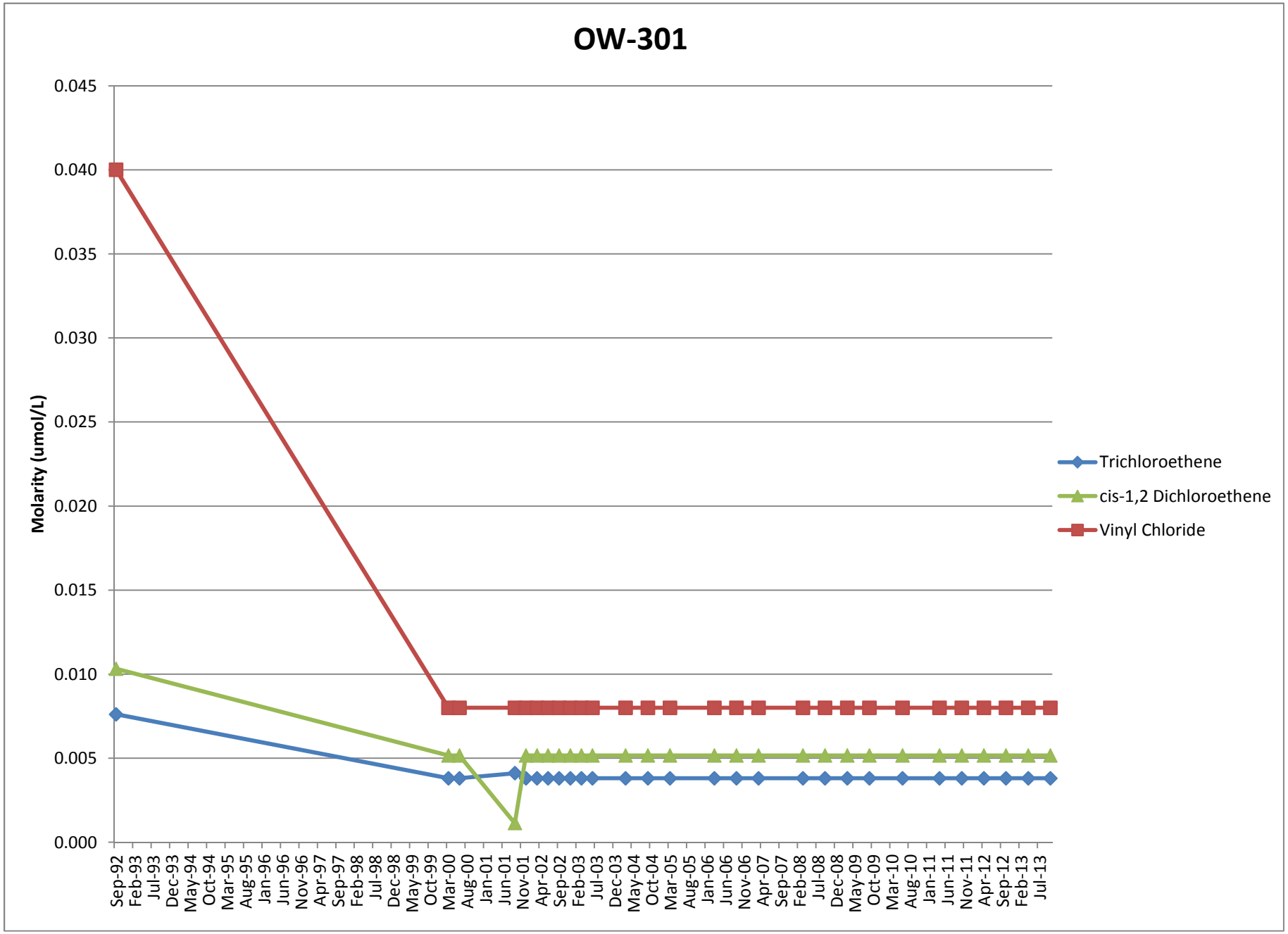
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-301
Molarity (umol/L)
0.045
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
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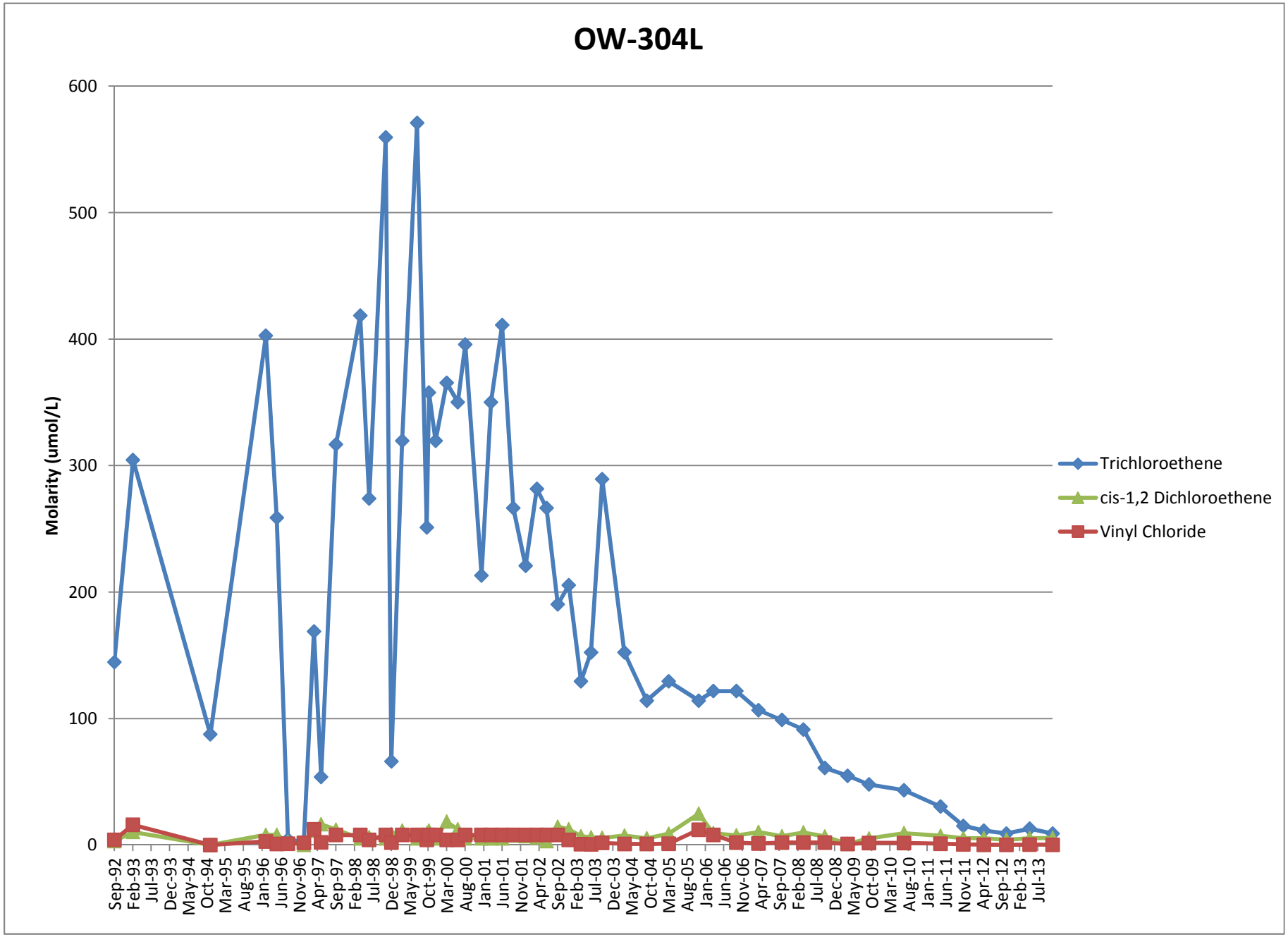
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-304L
Molarity (umol/L)
600
500
400
300
200
100
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
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May-99
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Mar-00
Aug-00
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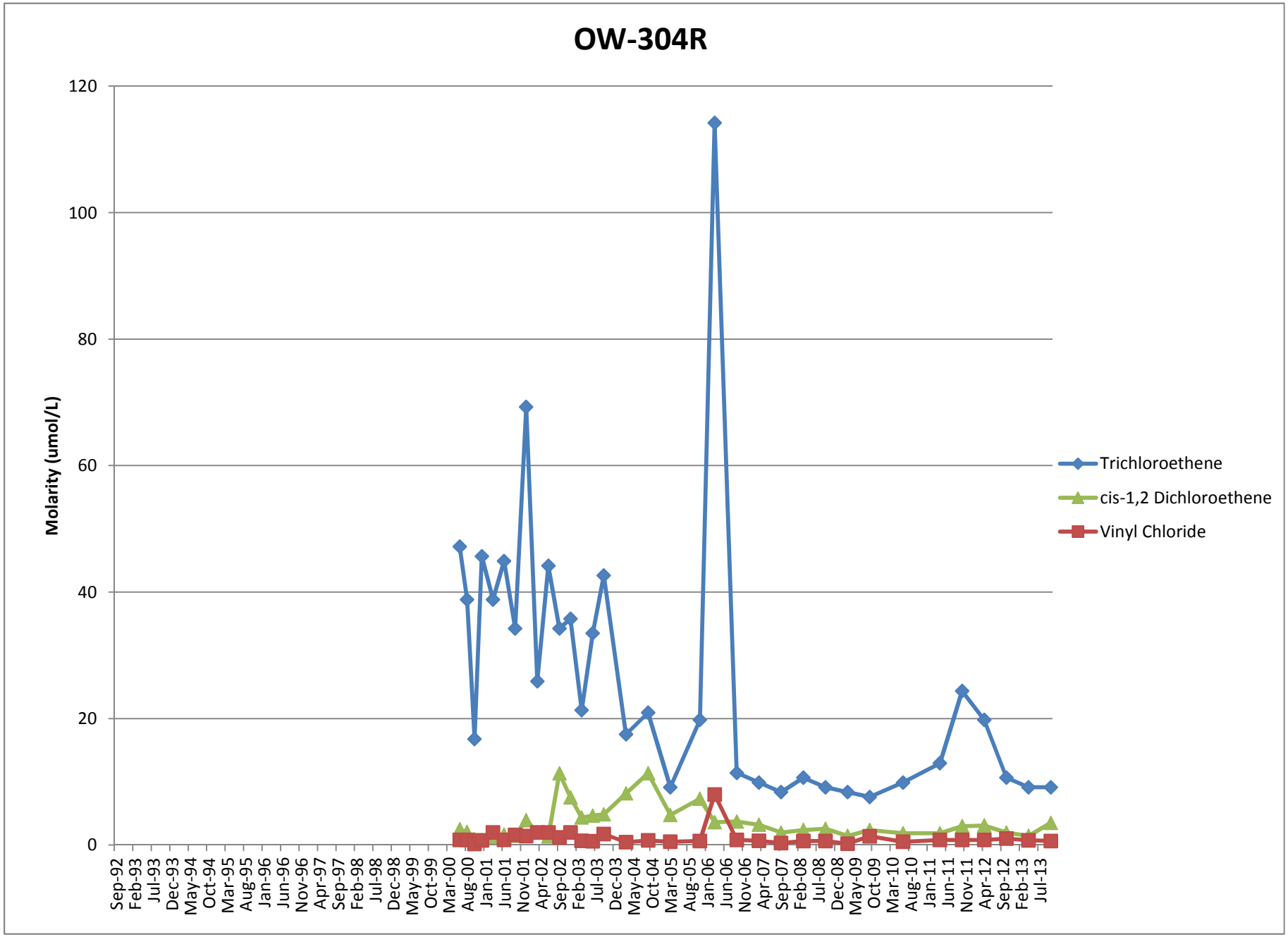
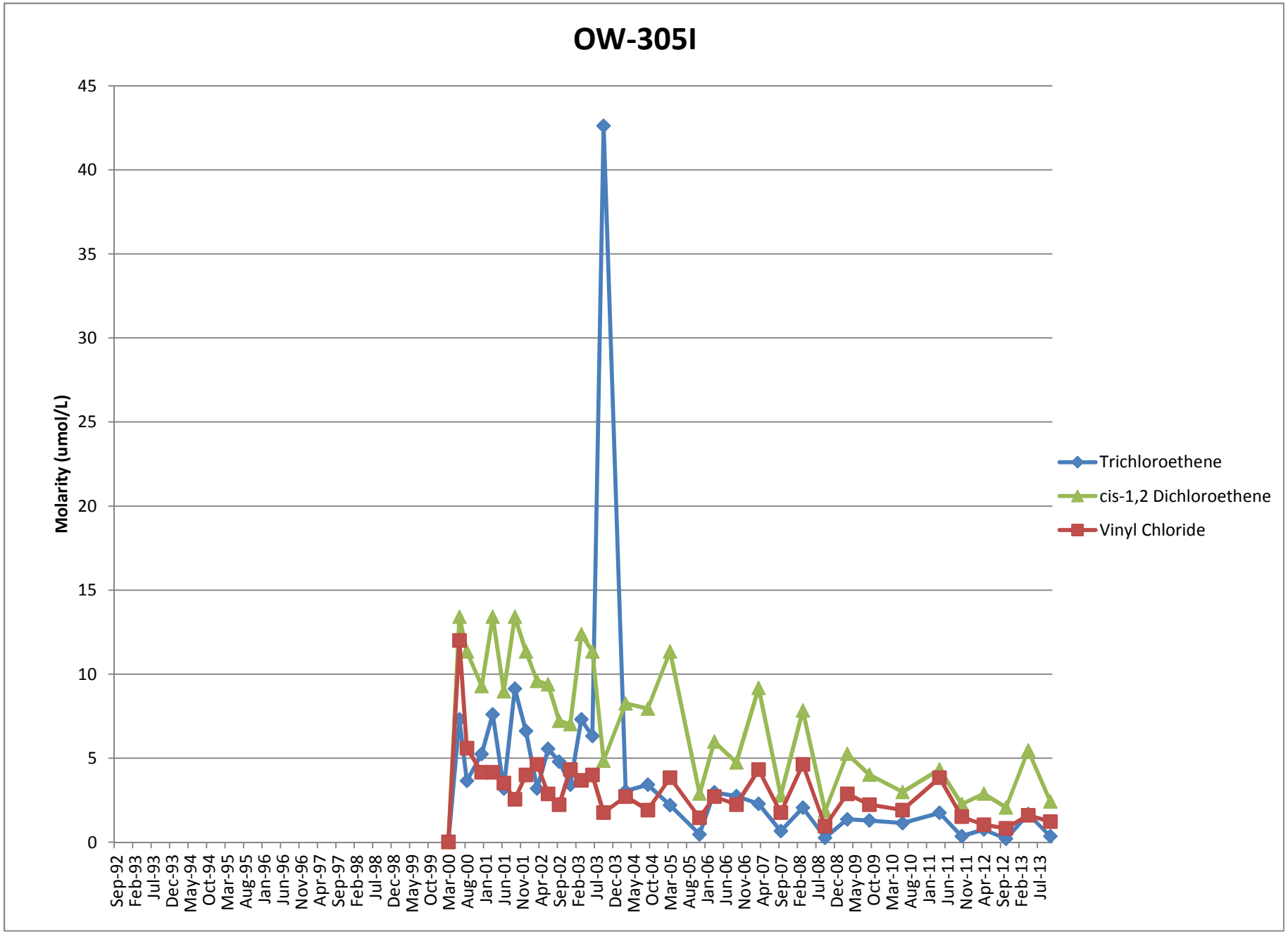
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-304R
Molarity (umol/L)
120
100
80
60
40
20
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-305I
Molarity (umol/L)
45
40
35
30
25
20
15
10
5
0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
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Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
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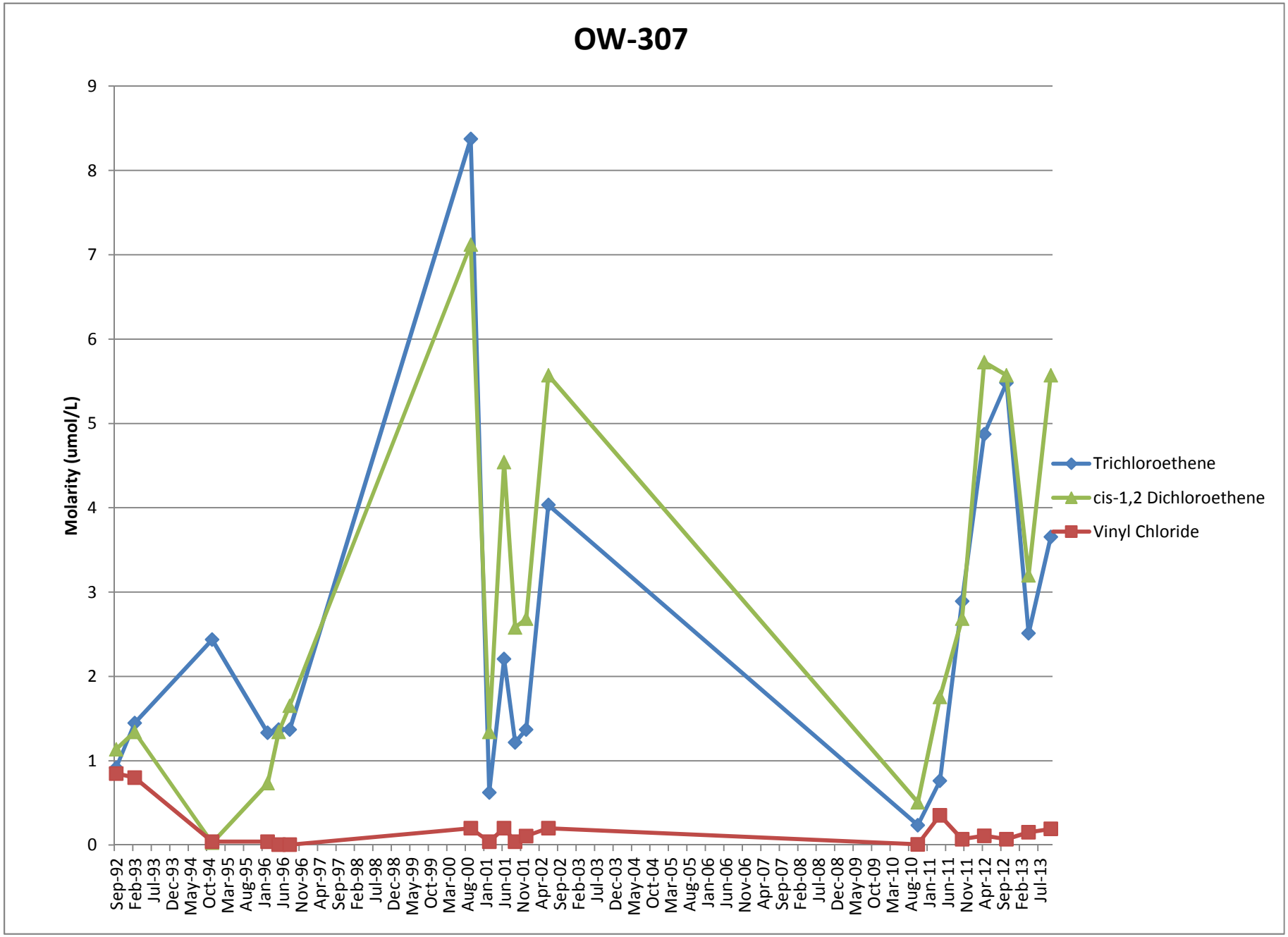
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-307
Molarity (umol/L)
0
1
2
3
4
5
6
7
8
9
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
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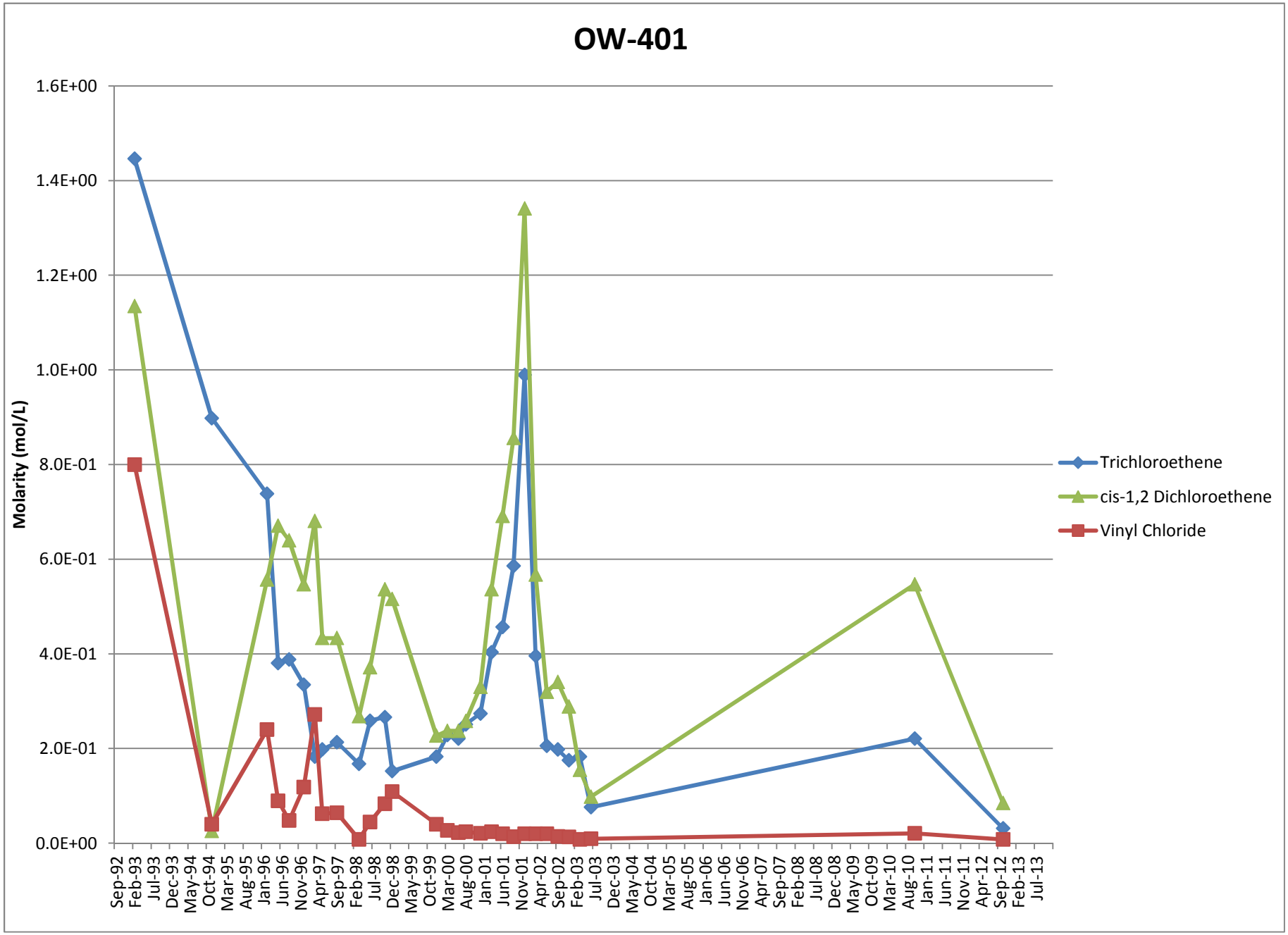
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-401
Molarity (mol/L)
1.6E+00
1.4E+00
1.2E+00
1.0E+00
8.0E-01
6.0E-01
4.0E-01
2.0E-01
0.0E+00
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
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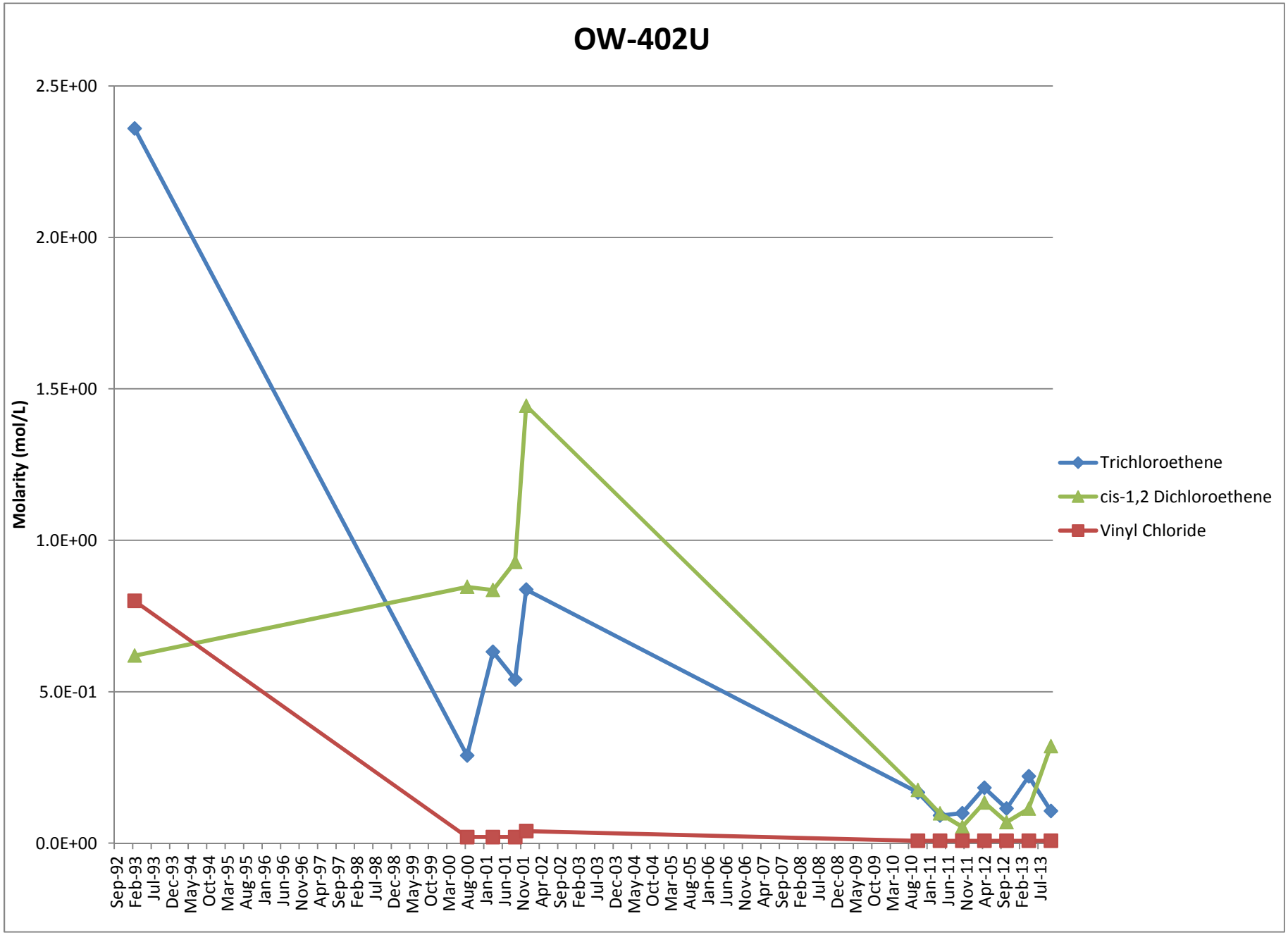
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-402U
Molarity (mol/L)
2.5E+00
2.0E+00
1.5E+00
1.0E+00
5.0E-01
0.0E+00
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
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Jan-01
Jun-01
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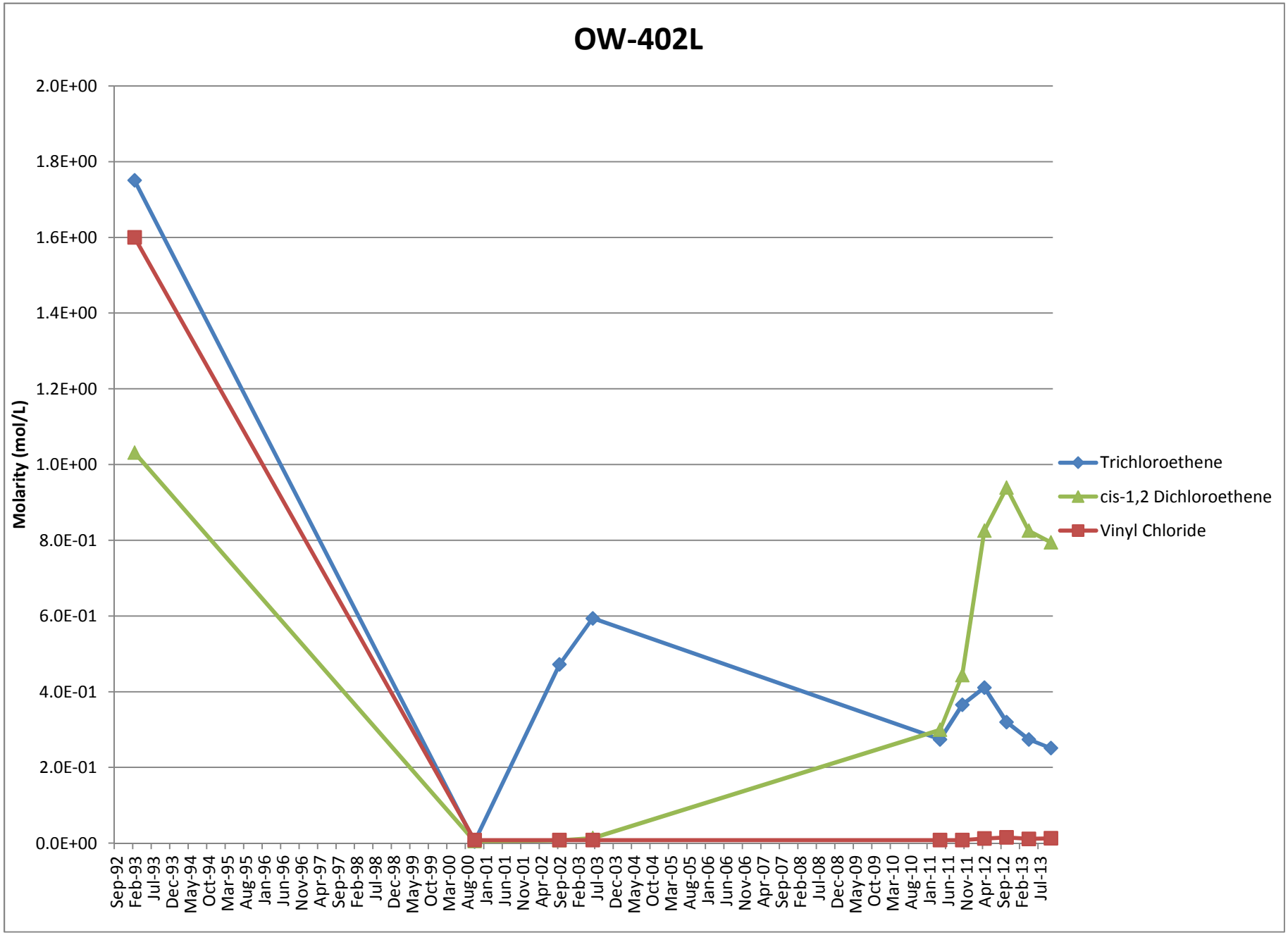
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-402L
Molarity (mol/L)
2.0E+00
1.8E+00
1.6E+00
1.4E+00
1.2E+00
1.0E+00
8.0E-01
6.0E-01
4.0E-01
2.0E-01
0.0E+00
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
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Feb-98
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Dec-98
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Jan-01
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Apr-02
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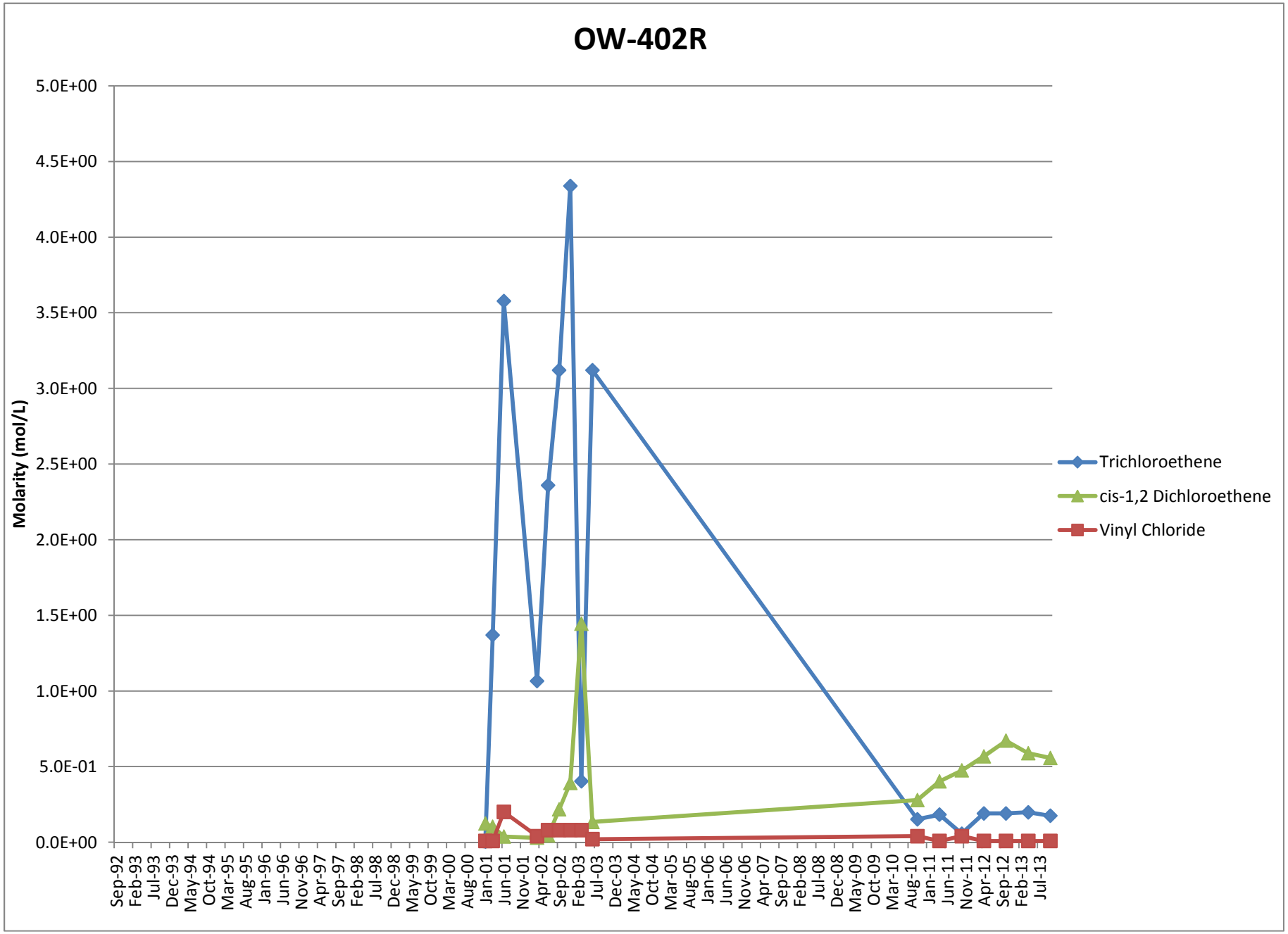
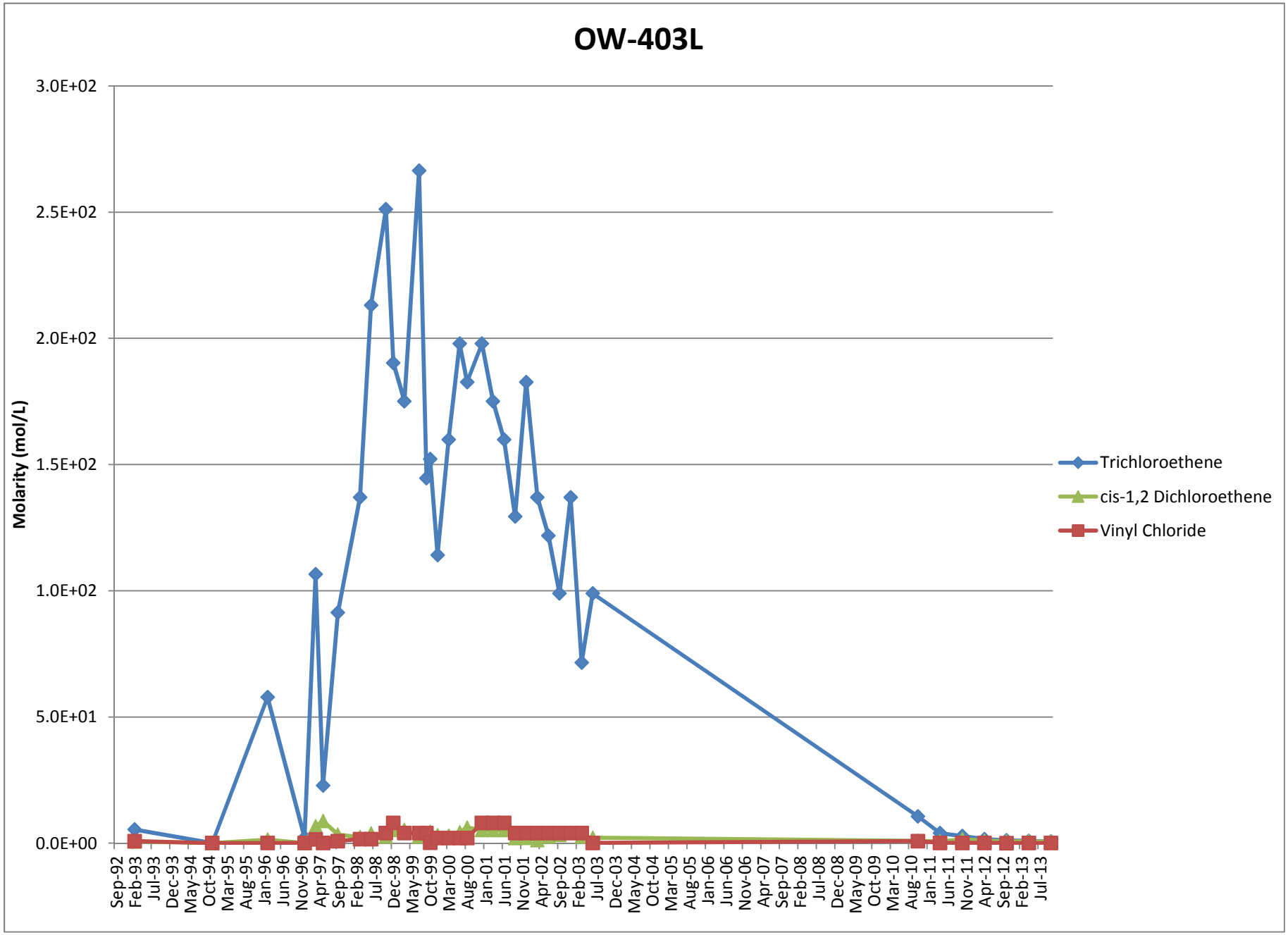
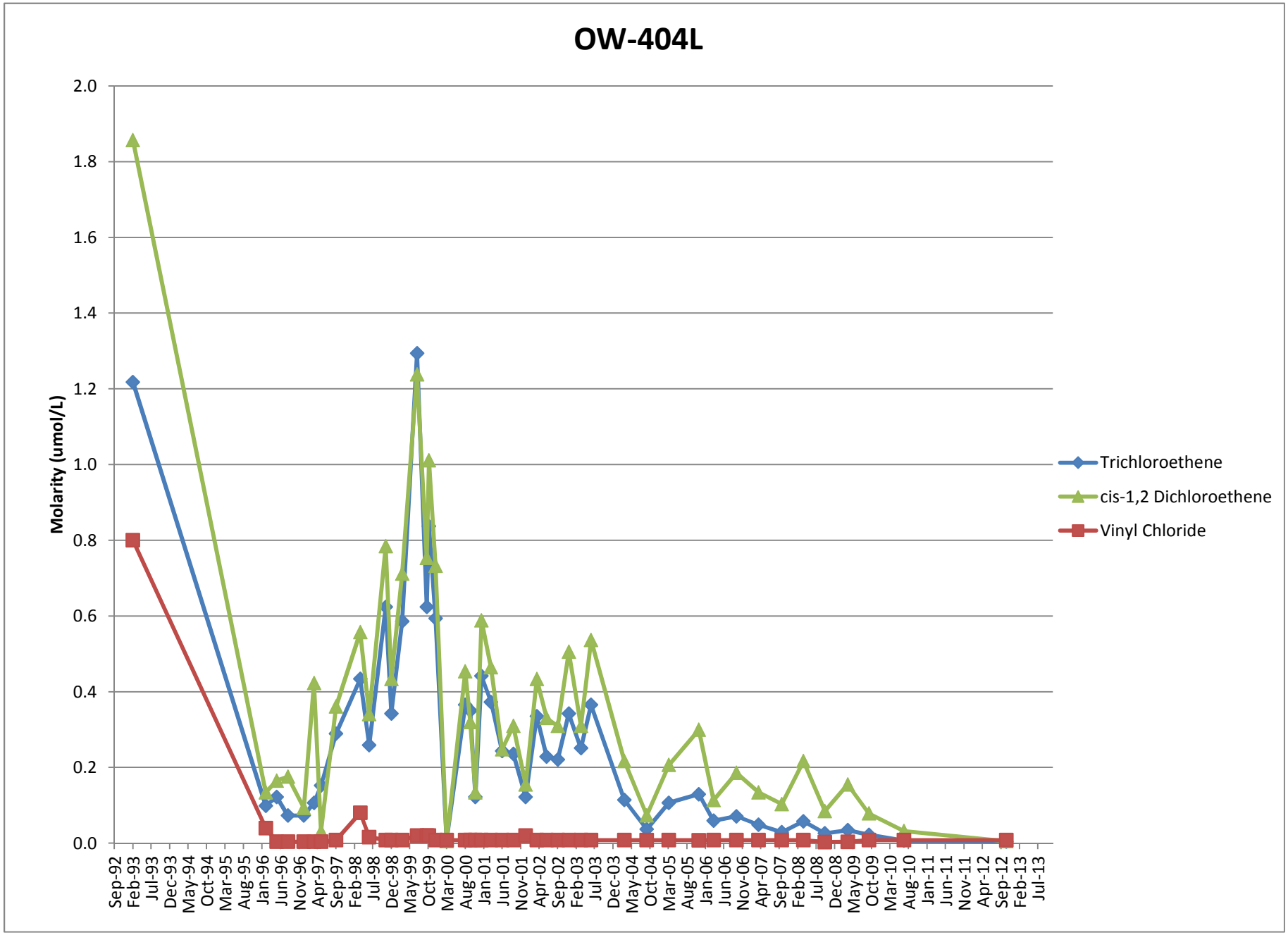
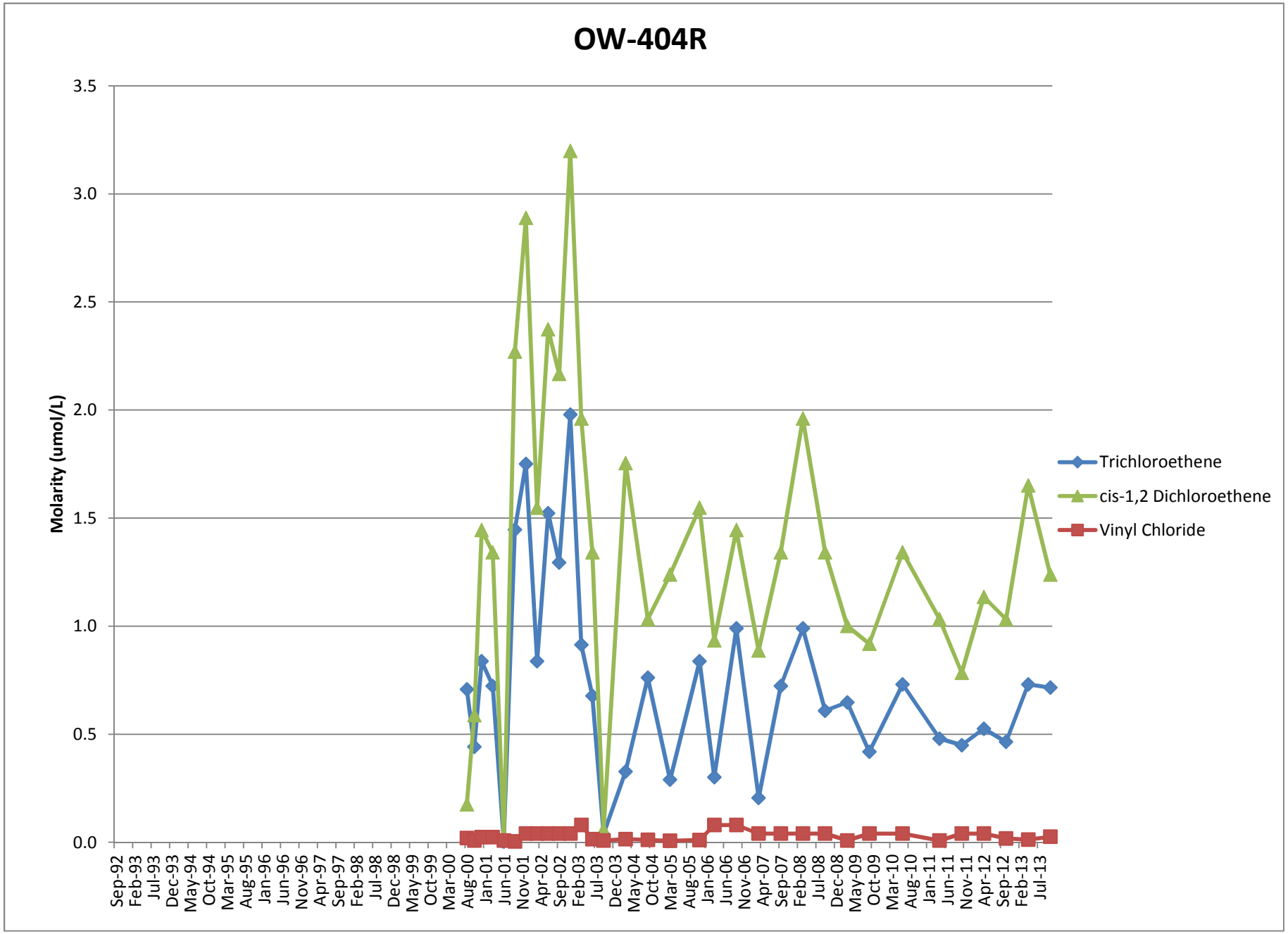
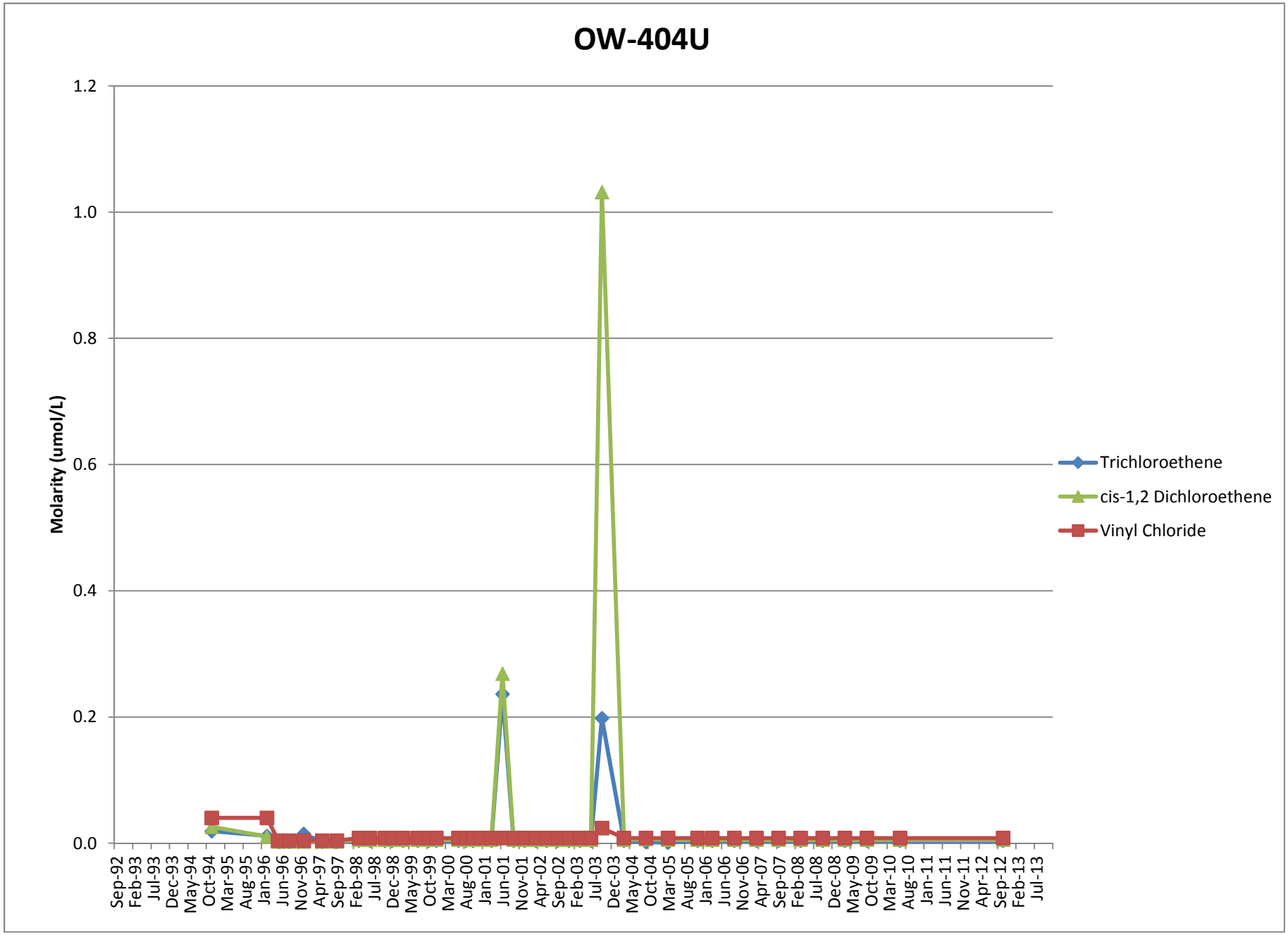
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride

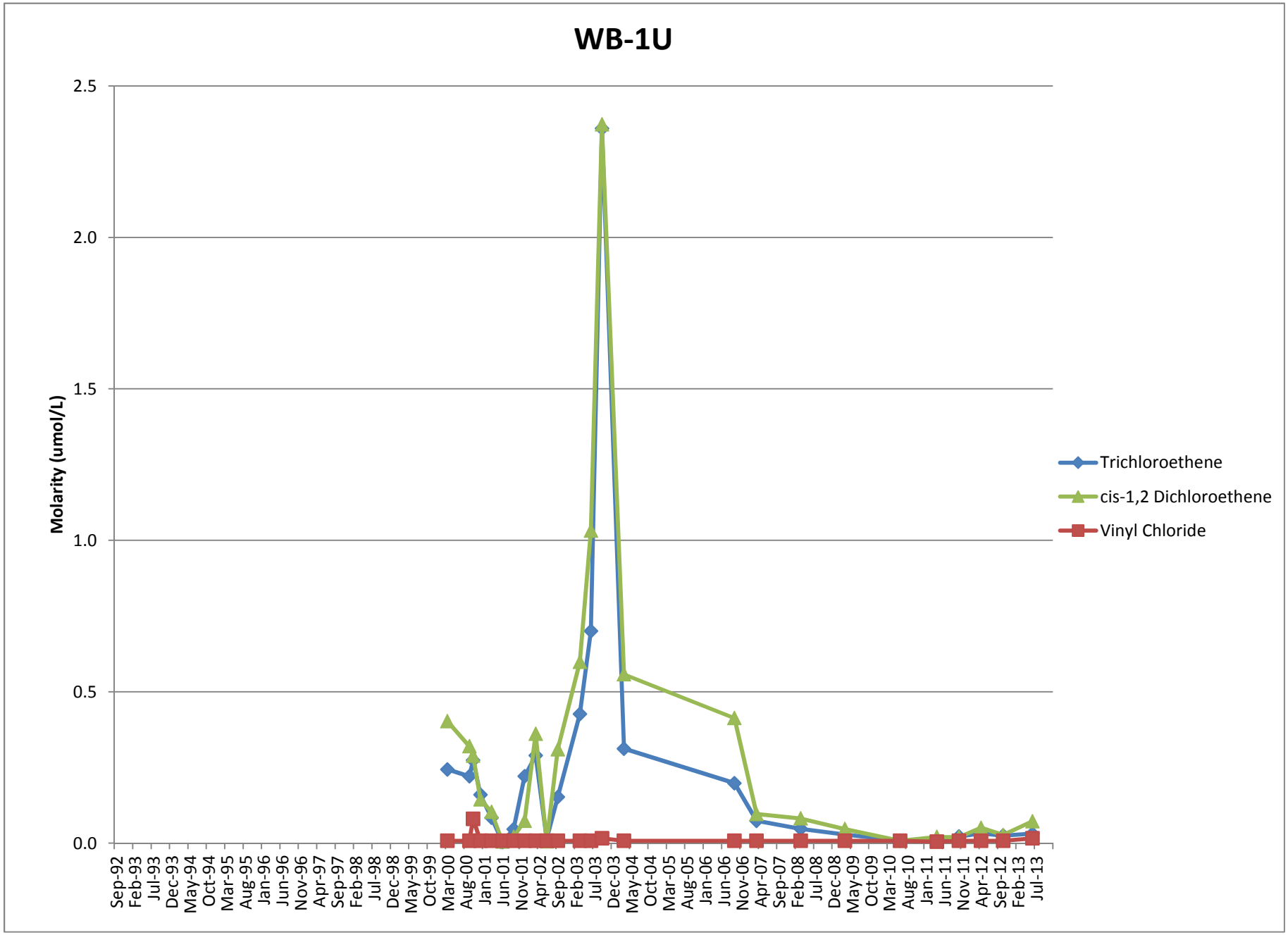

OW-402R
Molarity (mol/L)
5.0E+00
4.5E+00
4.0E+00
3.5E+00
3.0E+00
2.5E+00
2.0E+00
1.5E+00
1.0E+00
5.0E-01
0.0E+00
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-403L
Molarity (mol/L)
3.0E+02
2.5E+02
2.0E+02
1.5E+02
1.0E+02
5.0E+01
0.0E+00
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-404L
Molarity (umol/L)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-404R
Molarity (umol/L)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


OW-404U
Molarity (umol/L)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-1U
Molarity (umol/L)
2.5
2.0
1.5
1.0
0.5
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
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May-04
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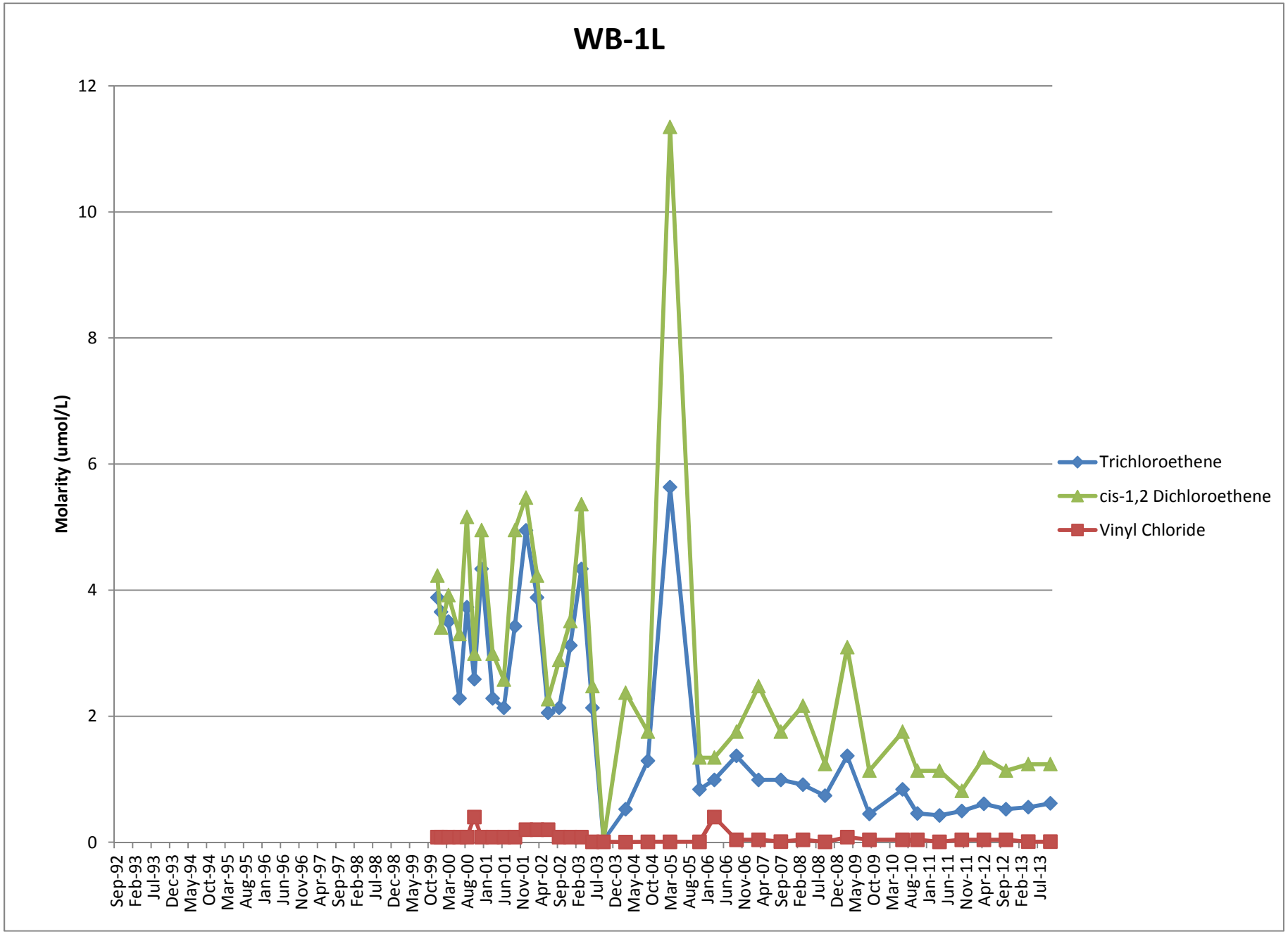
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-1L
Molarity (umol/L)
0
2
4
6
8
10
12
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
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Feb-03
Jul-03
Dec-03
May-04
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Mar-05
Aug-05
Jan-06
Jun-06
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Apr-07
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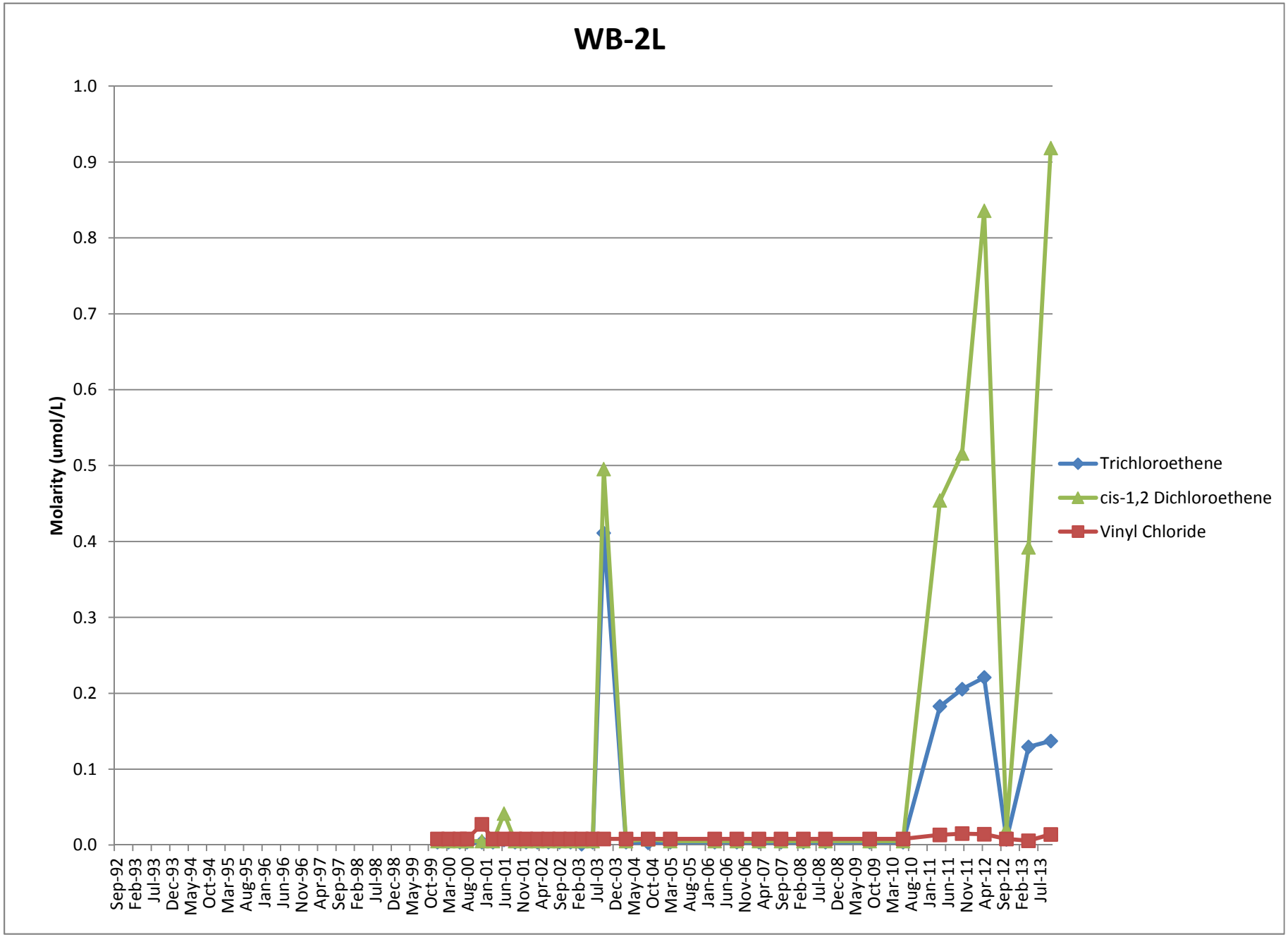
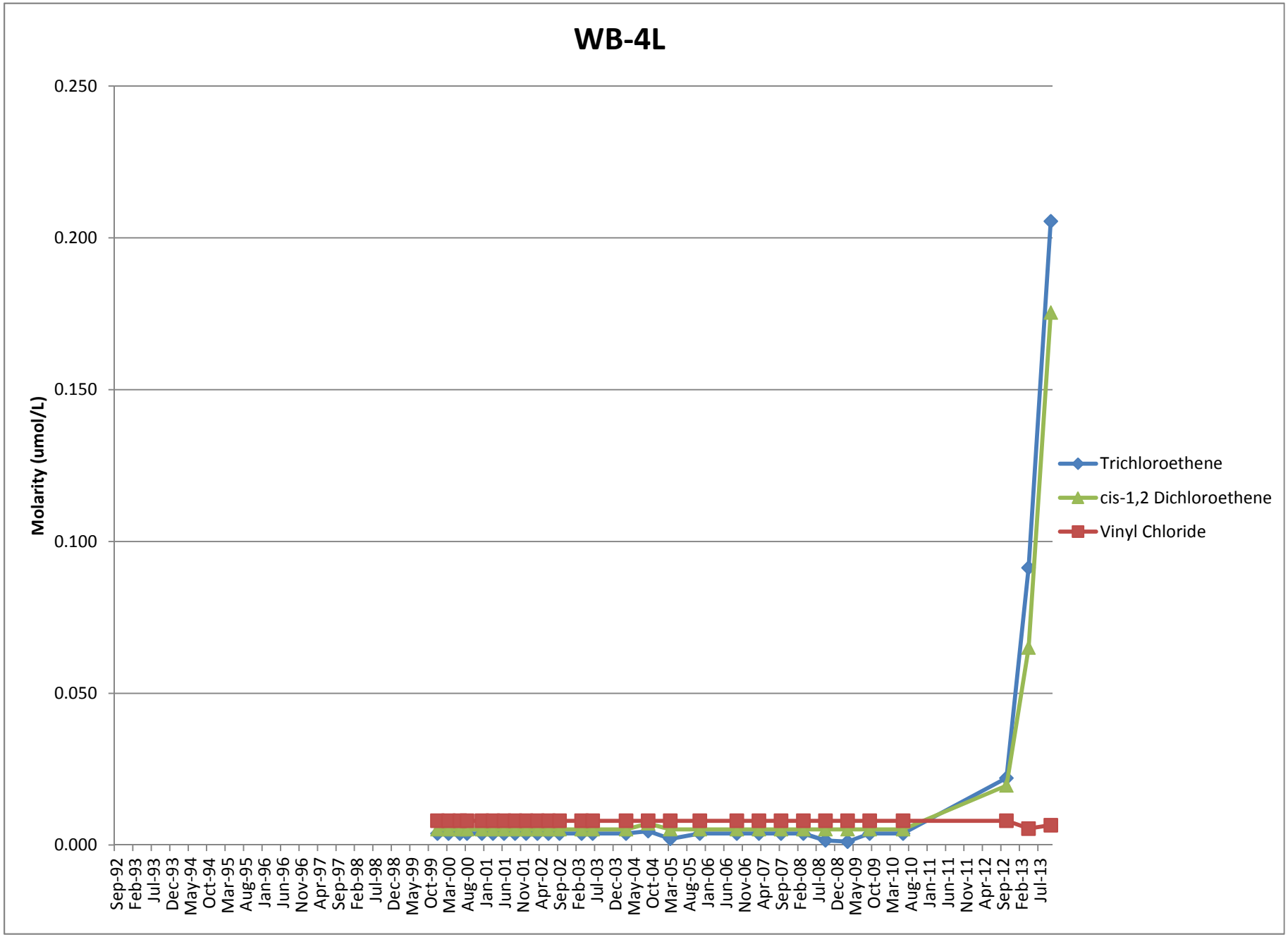
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-2L
Molarity (umol/L)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
Apr-02
Sep-02
Feb-03
Jul-03
Dec-03
May-04
Oct-04
Mar-05
Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride


WB-4L
Molarity (umol/L)
0.250
0.200
0.150
0.100
0.050
0.000
Sep-92
Feb-93
Jul-93
Dec-93
May-94
Oct-94
Mar-95
Aug-95
Jan-96
Jun-96
Nov-96
Apr-97
Sep-97
Feb-98
Jul-98
Dec-98
May-99
Oct-99
Mar-00
Aug-00
Jan-01
Jun-01
Nov-01
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May-04
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Aug-05
Jan-06
Jun-06
Nov-06
Apr-07
Sep-07
Feb-08
Jul-08
Dec-08
May-09
Oct-09
Mar-10
Aug-10
Jan-11
Jun-11
Nov-11
Apr-12
Sep-12
Feb-13
Jul-13
Trichloroethene
cis-1,2 Dichloroethene
Vinyl Chloride

APPENDIX D

IB PARAMETER TREND ANALYSIS

Index of Intrinsic Biodegradation Parameters Trend Analysis Charts File No. 01.0024065.14
Hewlett-Packard Voluntary Remediation Project
San German, Puerto Rico

Total Organic Carbon: Fill/Alluvium	Page 1
Total Organic Carbon: Saprolite	Page 2
Total Organic Carbon: Bedrock	Page 3
Dissolved Iron: Fill/Alluvium	Page 4
Dissolved Iron: Saprolite	Page 5
Dissolved Iron: Bedrock	Page 6
Sulfate: Fill/Alluvium	Page 7
Sulfate: Saprolite	Page 8
Sulfate: Bedrock	Page 9
Methane: Fill/Alluvium	Page 10
Methane: Saprolite	Page 11
Methane: Bedrock	Page 12
Ethane: Fill/Alluvium	Page 13
Ethane: Saprolite	Page 14
Ethane: Bedrock	Page 15
Ethene: Fill/Alluvium	Page 16
Ethene: Saprolite	Page 17
Ethene: Bedrock	Page 18
Chloride: Fill/Alluvium	Page 19
Chloride: Saprolite	Page 20
Chloride: Bedrock	Page 21
Nitrate: Fill/Alluvium	Page 22
Nitrate: Saprolite	Page 23
Nitrate: Bedrock	Page 24
Dissolved Oxygen: Fill/Alluvium	Page 25
Dissolved Oxygen: Saprolite	Page 26
Dissolved Oxygen: Bedrock	Page 27

Oxidation-Reduction Potential: Fill/Alluvium Page 28

Oxidation-Reduction Potential: Saprolite Page 29

Oxidation-Reduction Potential: Bedrock Page 30

pH: Fill/Alluvium Page 31

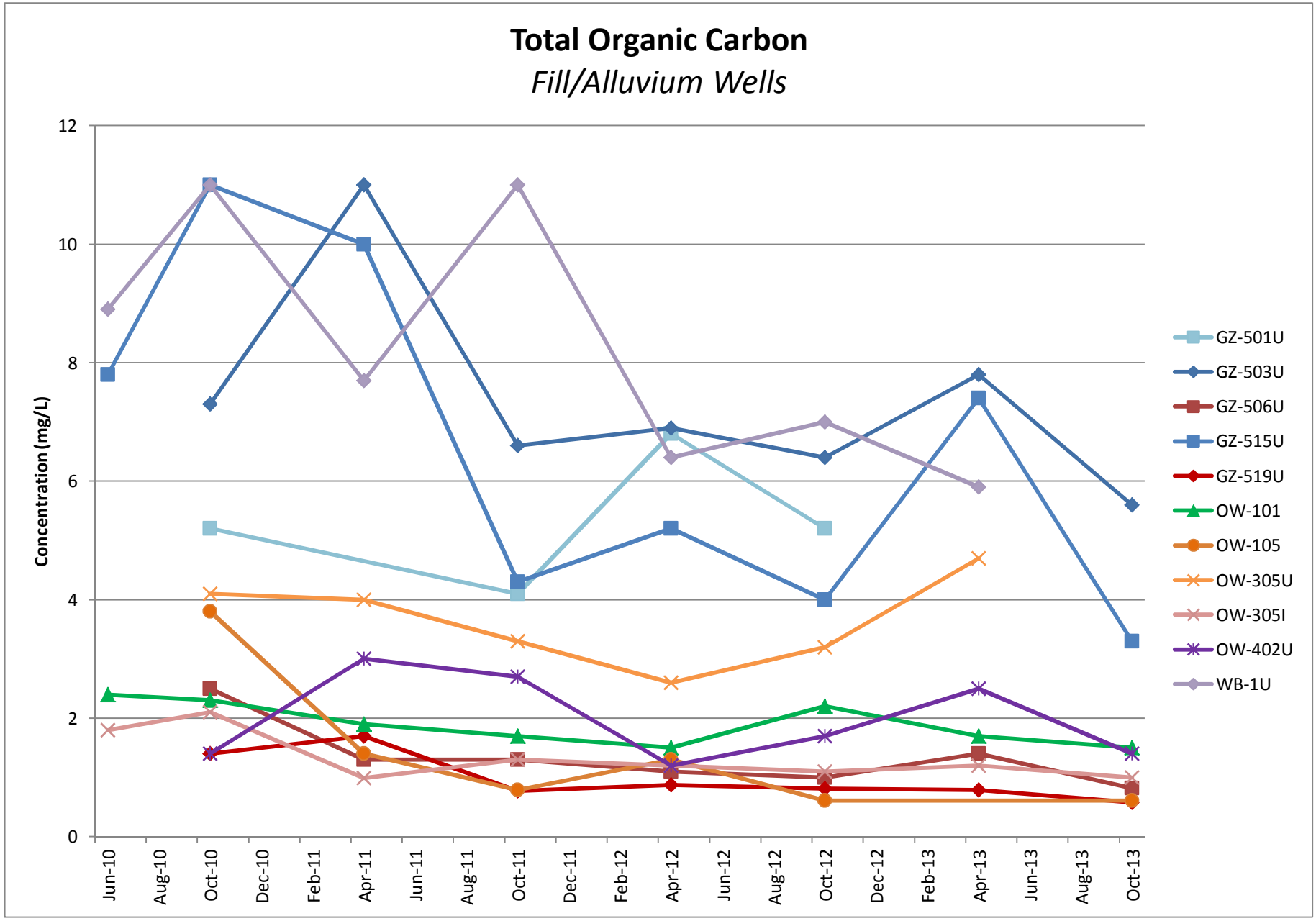
pH: Saprolite Page 32

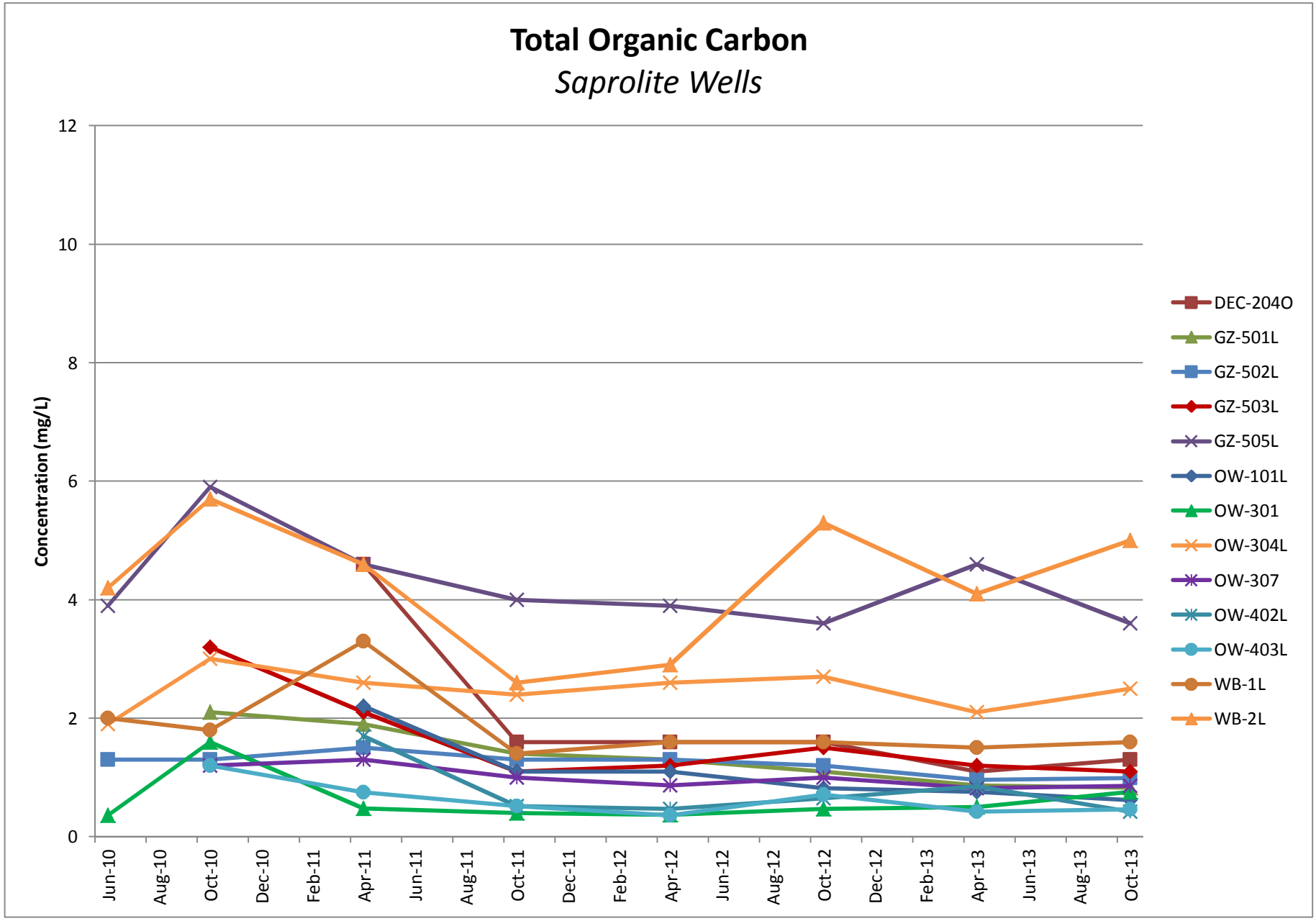
pH: Bedrock Page 33

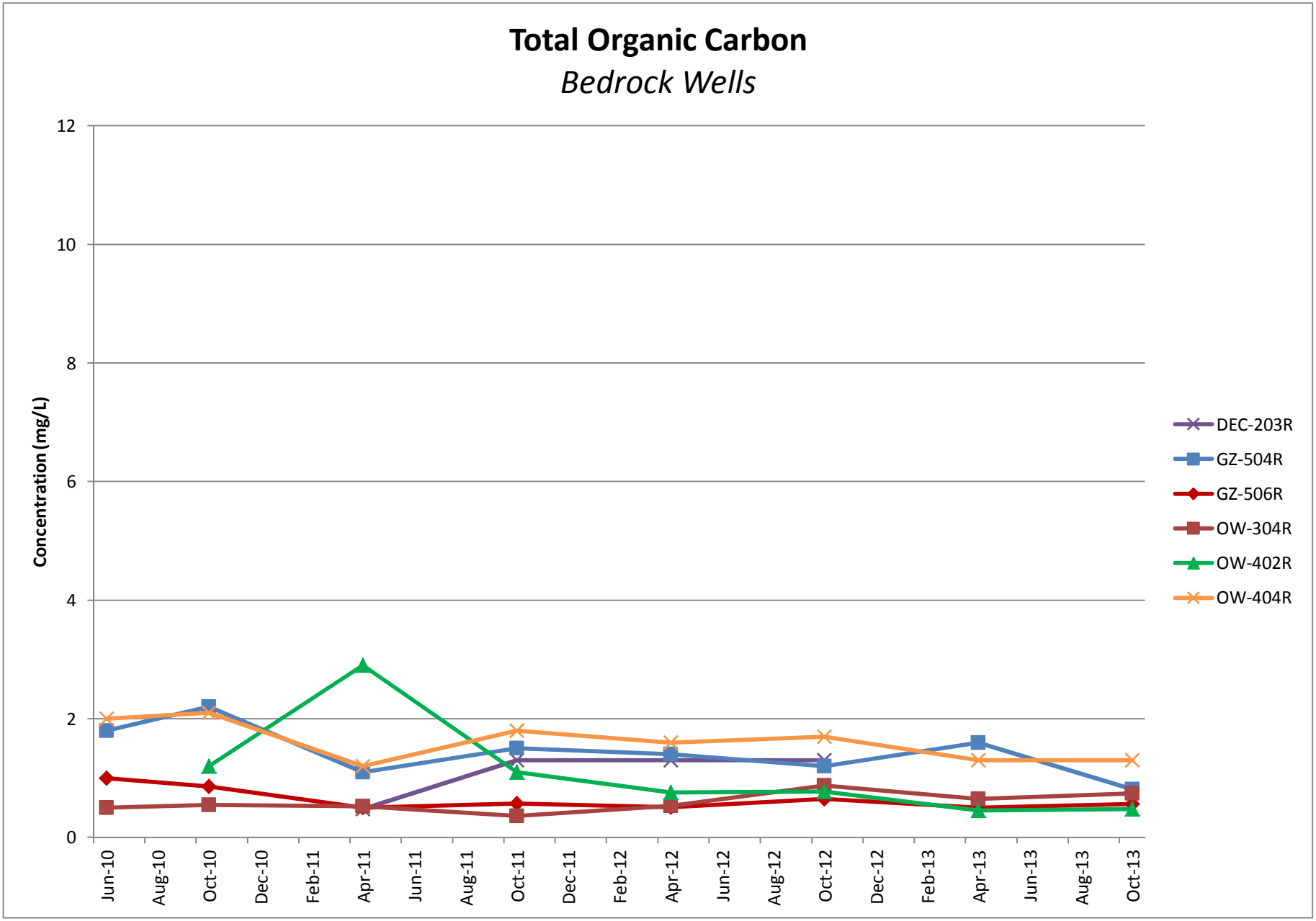
Notes:

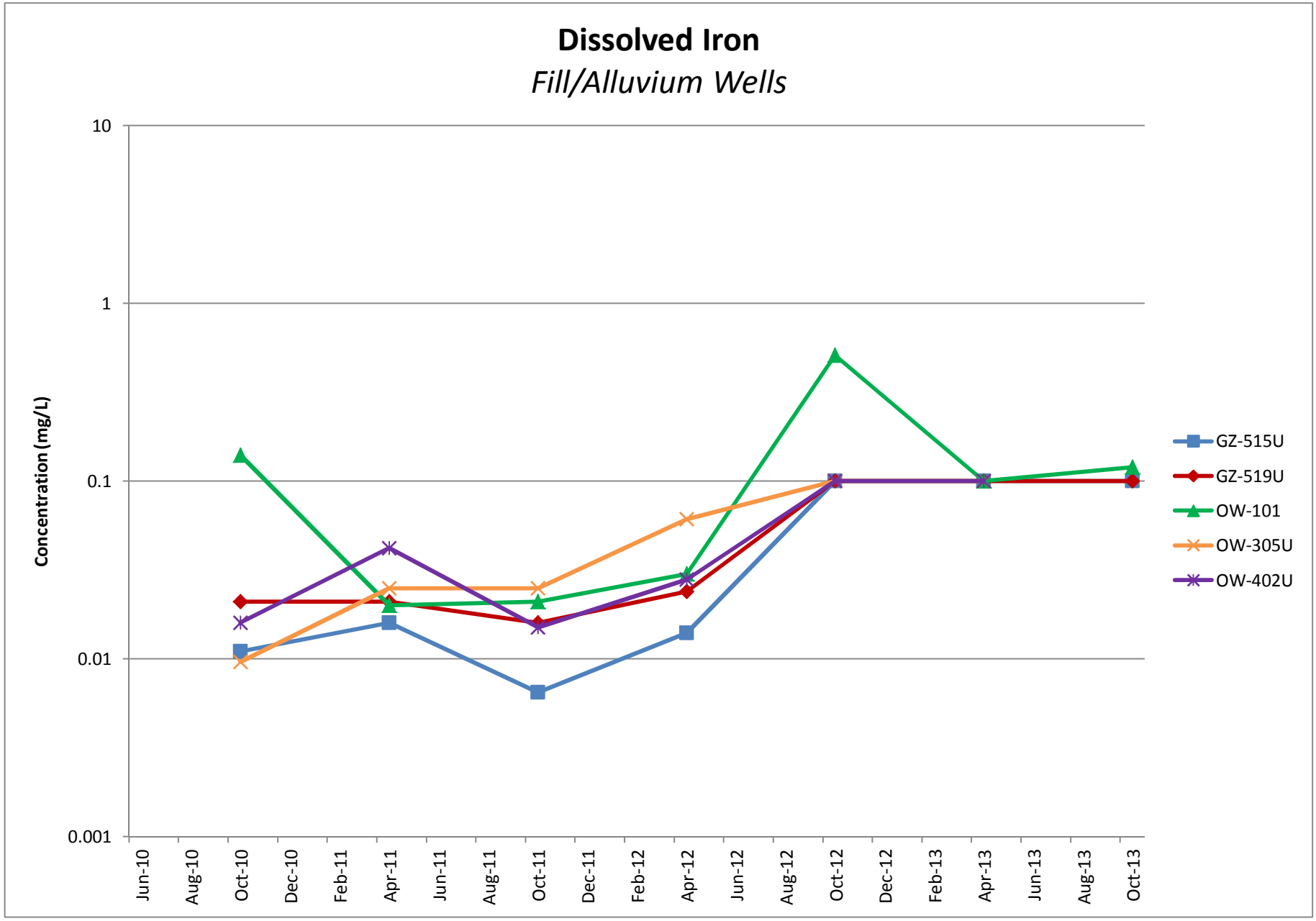
1. In instances where a constituent was not detected, half of the reporting limit was used as the concentration.
2. Data that were reported with qualifiers were treated as if they were not reported with qualifiers in this analysis. In general, this led to a more conservative analysis.
3. For ethene and ethane, the analysis was based primarily on non-detect and qualified results.

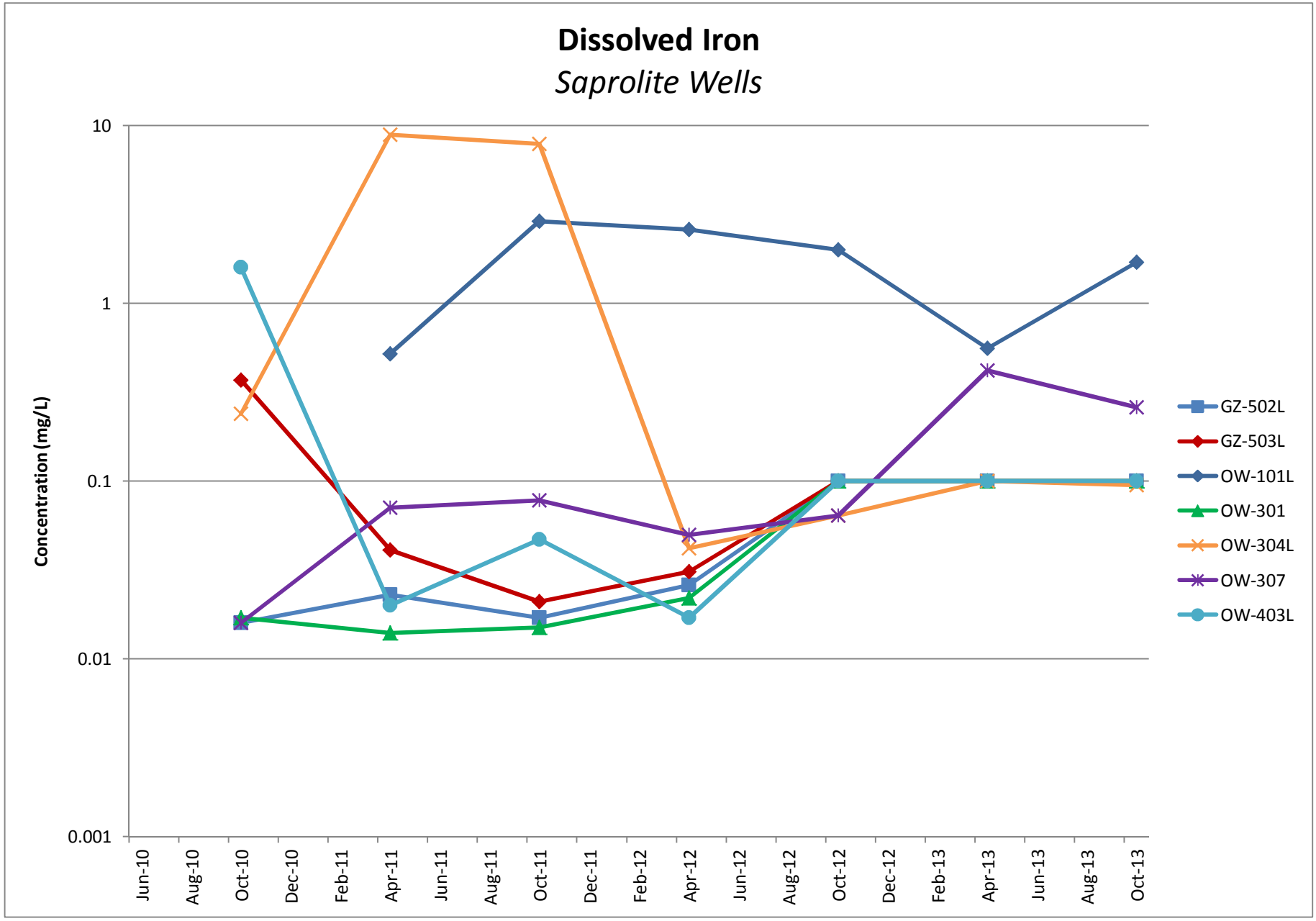
J:\23,000-24,999\24065\24065-14.JAC\Semi-Annual Reports\Q3-Q4 2014\Appendices\Appendix D - IB Trend Figures\Index for IB Charts.docx

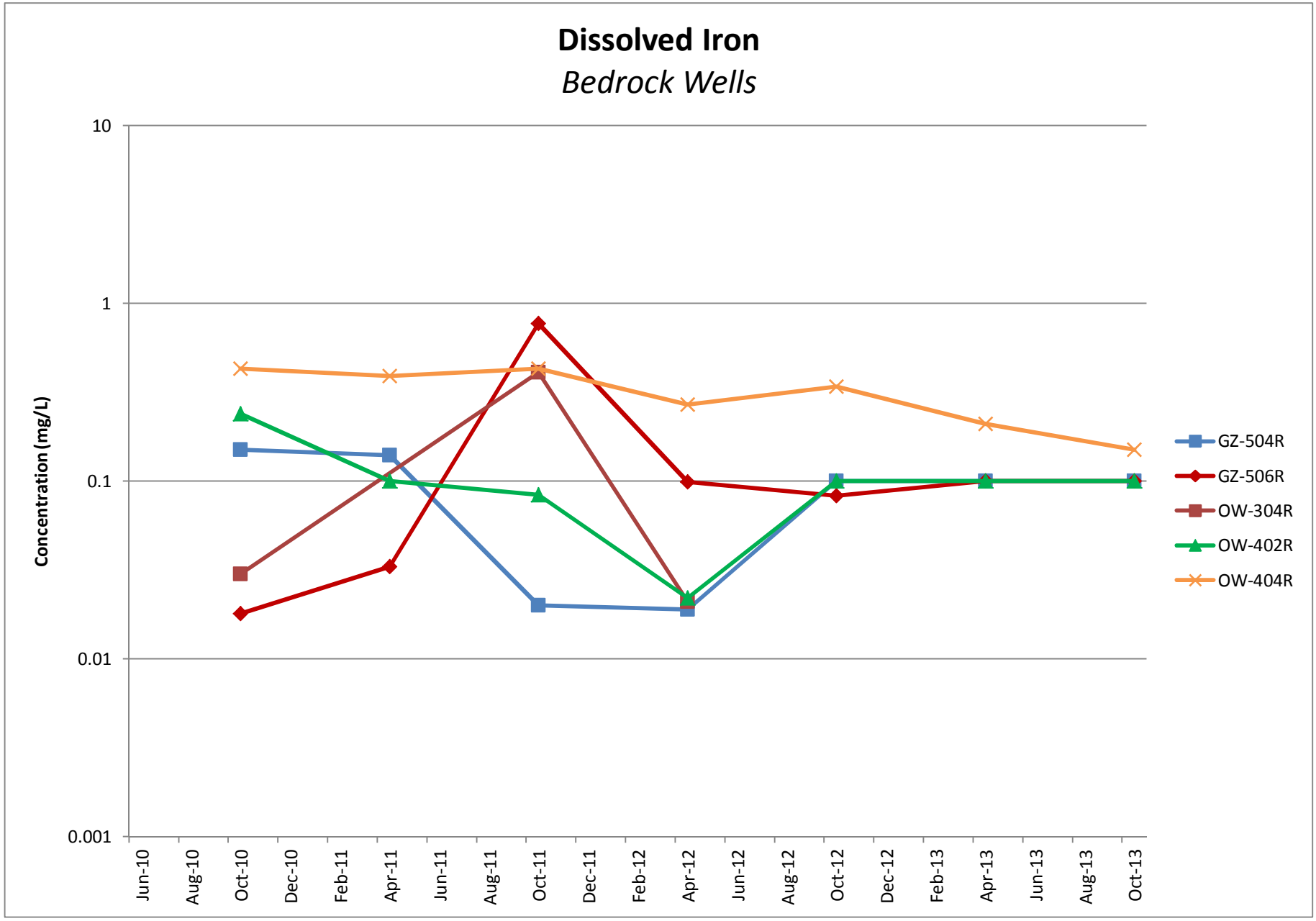

Total Organic Carbon
Fill/Alluvium Wells
Concentration (mg/L)
0
2
4
6
8
10
12
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-501U
GZ-503U
GZ-506U
GZ-515U
GZ-519U
OW-101
OW-105
OW-305U
OW-305I
OW-402U
WB-1U

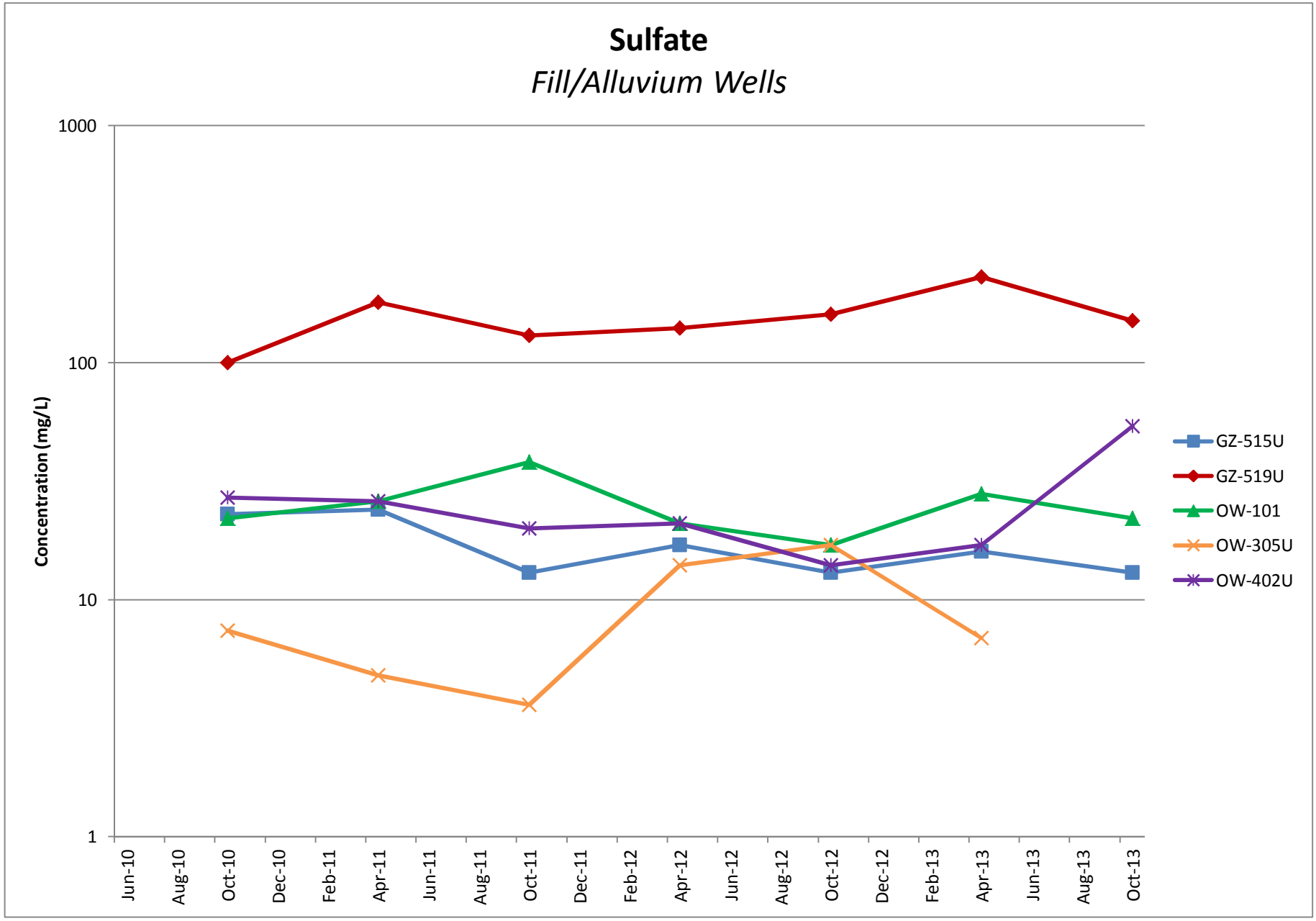

Total Organic Carbon
Saprolite Wells
Concentration (mg/L)
0
2
4
6
8
10
12
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
DEC-204O
GZ-501L
GZ-502L
GZ-503L
GZ-505L
OW-101L
OW-301
OW-304L
OW-307
OW-402L
OW-403L
WB-1L
WB-2L

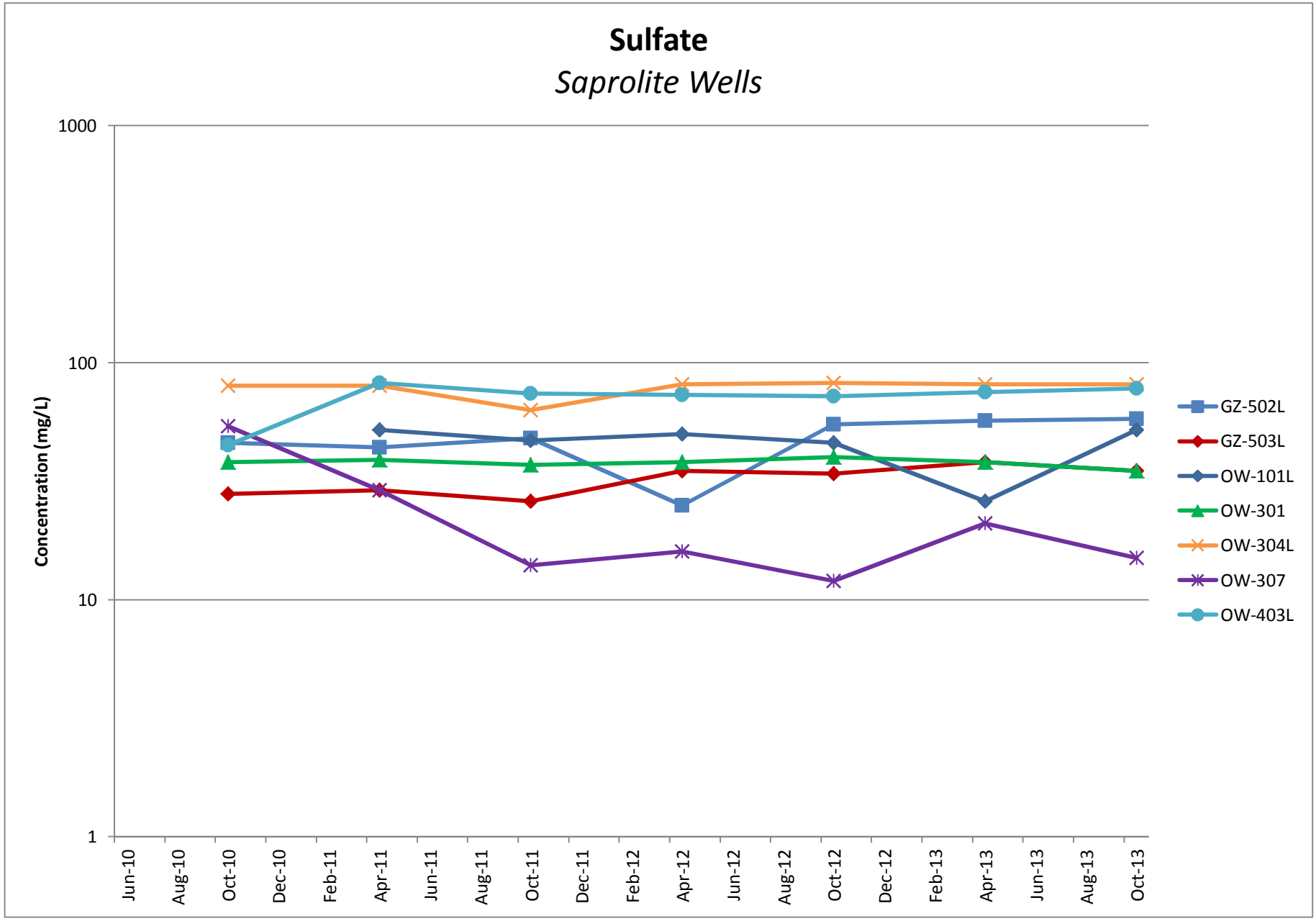

Total Organic Carbon
Bedrock Wells
Concentration (mg/L)
12
10
8
6
4
2
0
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
DEC-203R
GZ-504R
GZ-506R
OW-304R
OW-402R
OW-404R

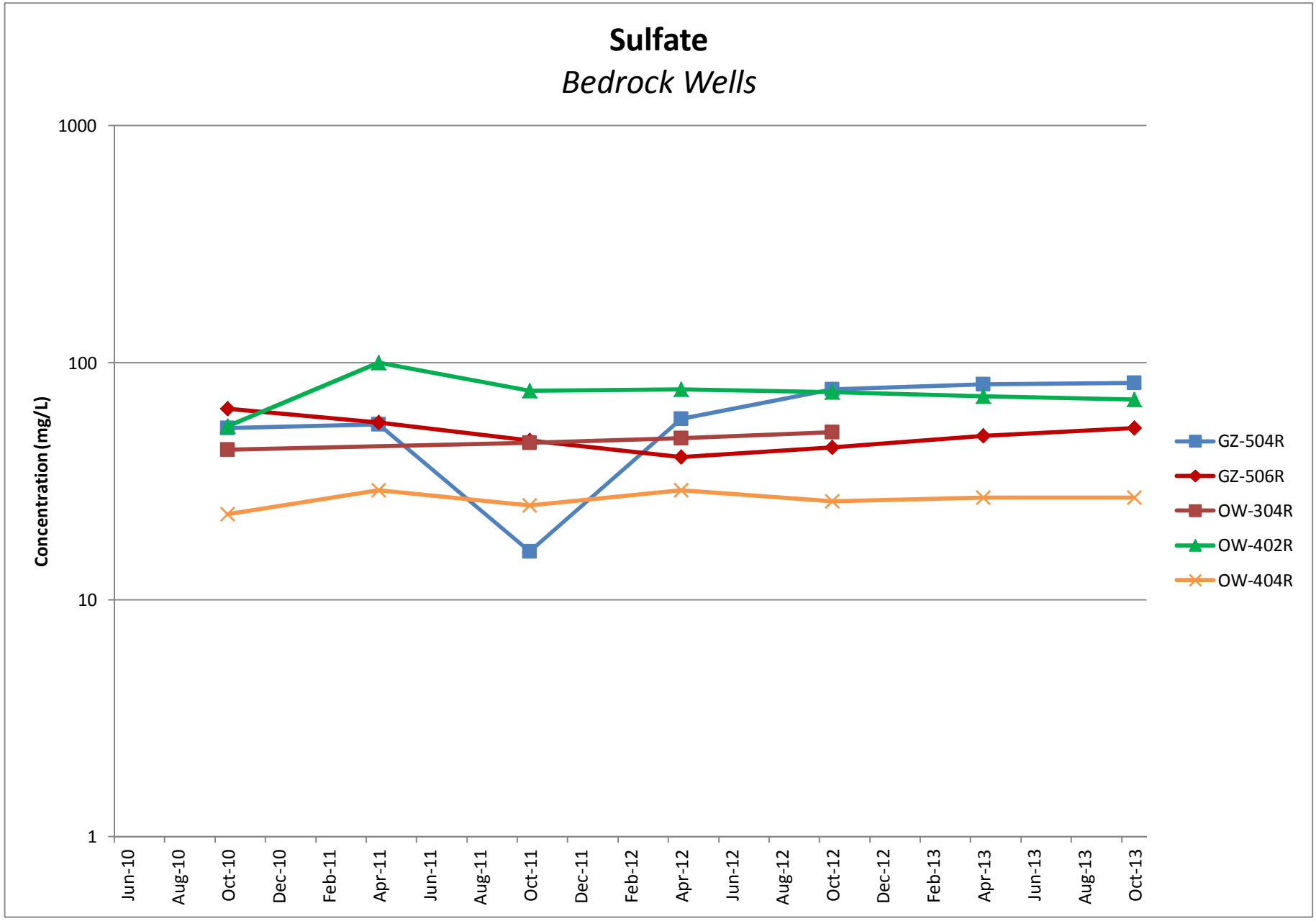

Dissolved Iron
Fill/Alluvium Wells
Concentration (mg/L)
10
1
0.1
0.01
0.001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-515U
GZ-519U
OW-101
OW-305U
OW-402U


Dissolved Iron
Saprolite Wells
Concentration (mg/L)
10
1
0.1
0.01
0.001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-502L
GZ-503L
OW-101L
OW-301
OW-304L
OW-307
OW-403L


Dissolved Iron
Bedrock Wells
Concentration (mg/L)
10
1
0.1
0.01
0.001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-504R
GZ-506R
OW-304R
OW-402R
OW-404R


Sulfate
Fill/Alluvium Wells
Concentration (mg/L)
1000
100
10
1
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-515U
GZ-519U
OW-101
OW-305U
OW-402U


Sulfate
Saprolite Wells
Concentration (mg/L)
1000
100
10
1
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-502L
GZ-503L
OW-101L
OW-301
OW-304L
OW-307
OW-403L


Sulfate
Bedrock Wells
Concentration (mg/L)
1000
100
10
1
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
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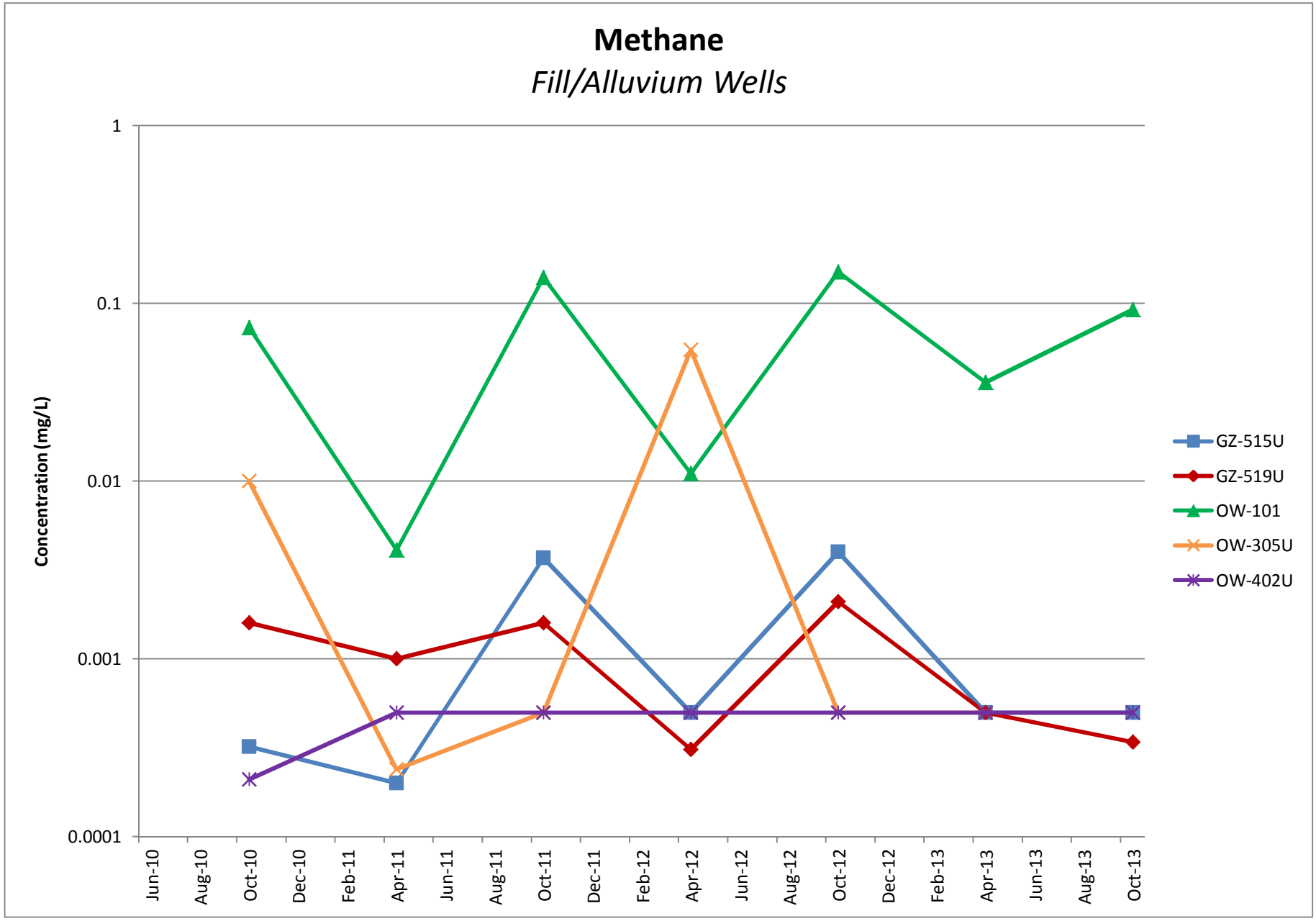
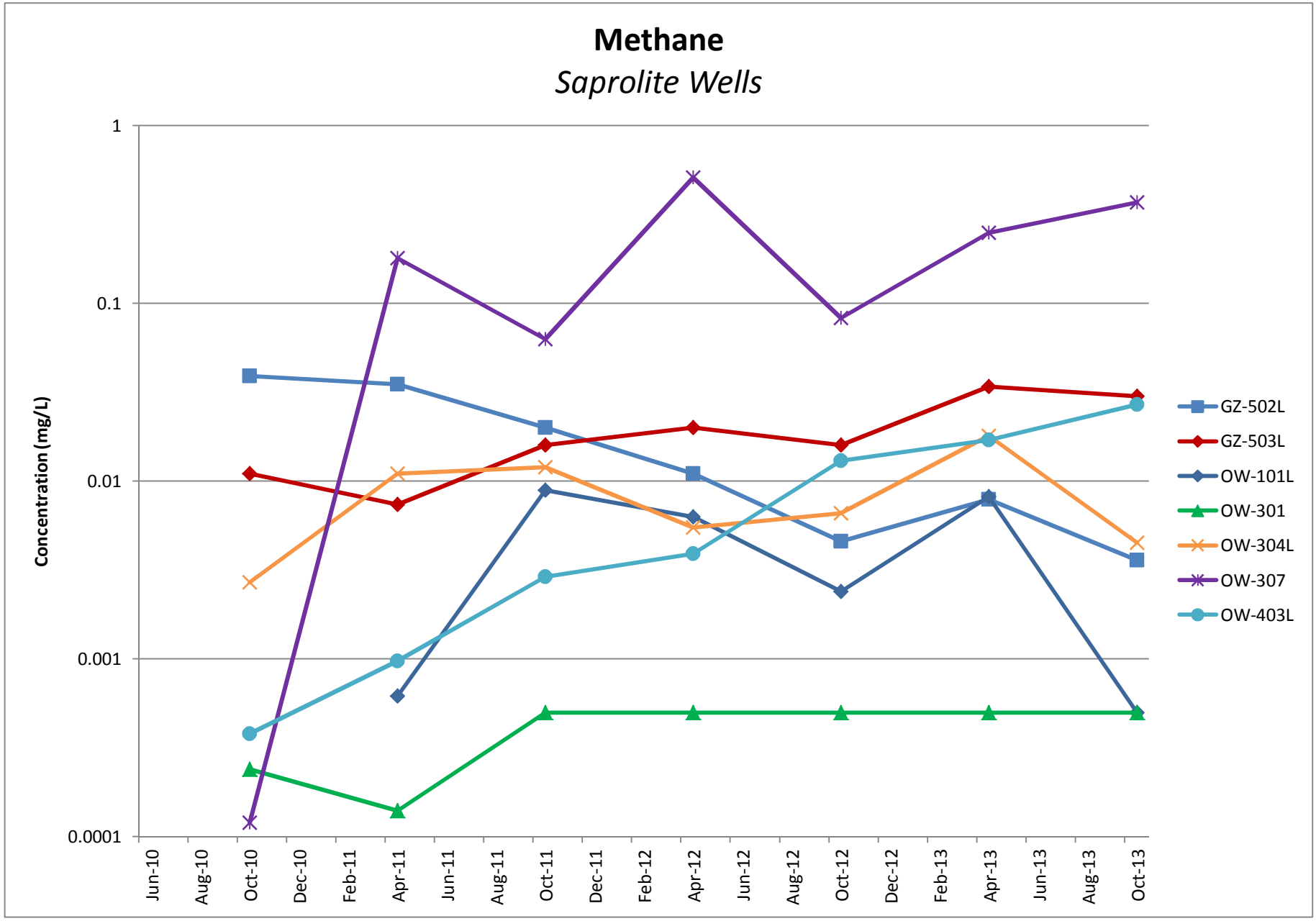
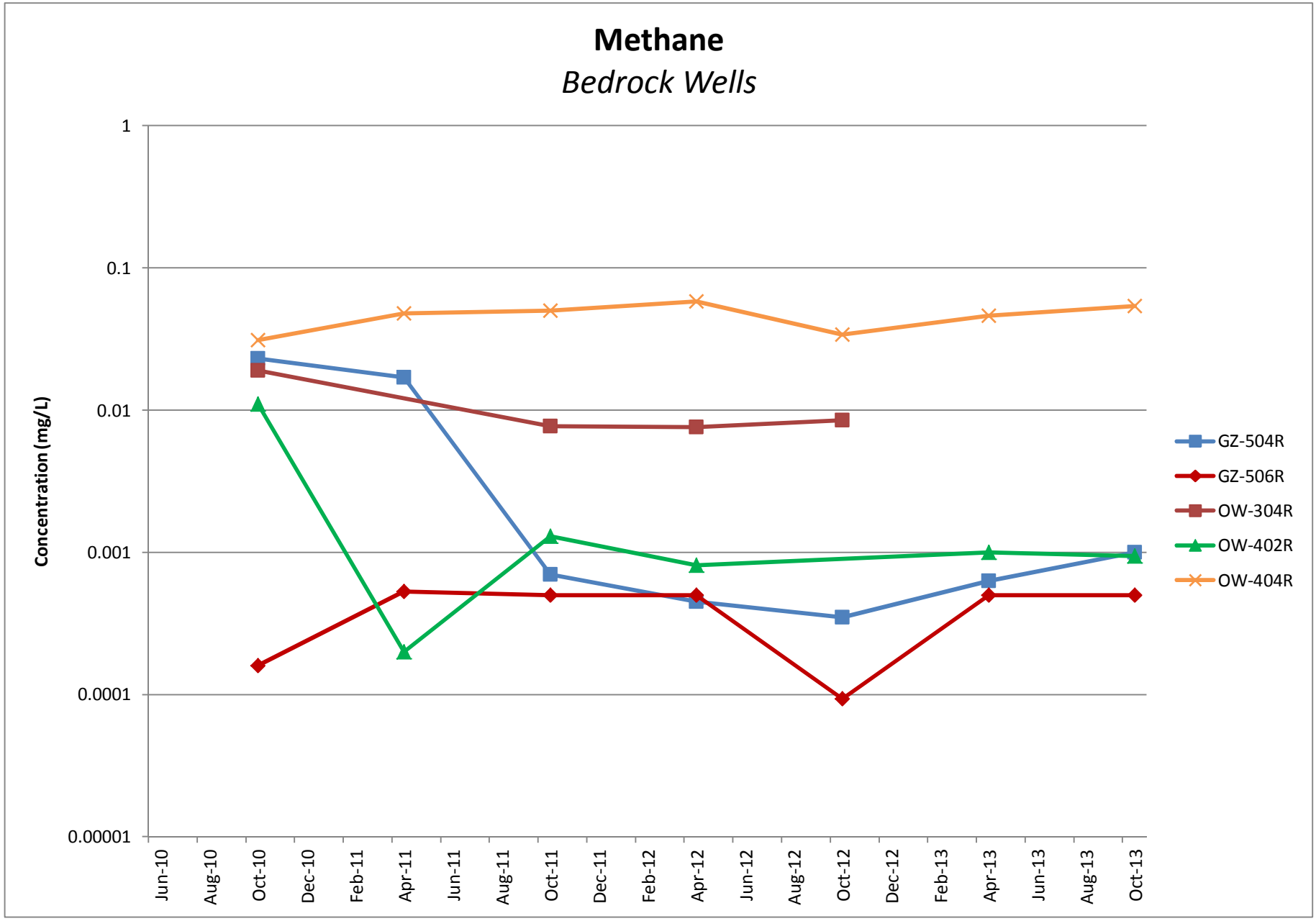
Jun-13
Aug-13
Oct-13
GZ-504R
GZ-506R
OW-304R
OW-402R
OW-404R


Methane
Fill/Alluvium Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-515U
GZ-519U
OW-101
OW-305U
OW-402U


Methane
Saprolite Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-502L
GZ-503L
OW-101L
OW-301
OW-304L
OW-307
OW-403L


Methane
Bedrock Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
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Oct-13
GZ-504R
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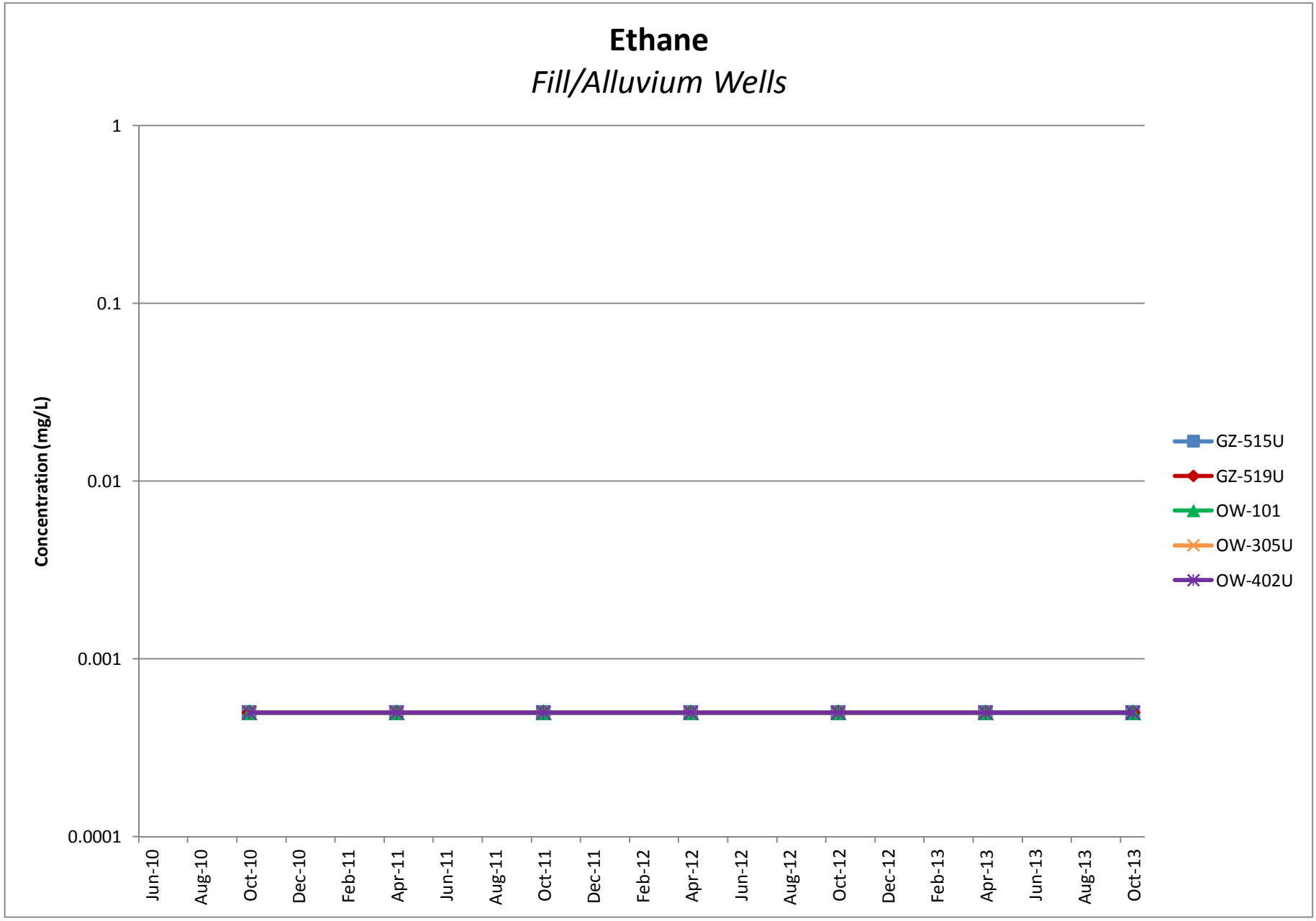
OW-304R
OW-402R
OW-404R


Ethane
Fill/Alluvium Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
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Jun-13
Aug-13
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GZ-515U
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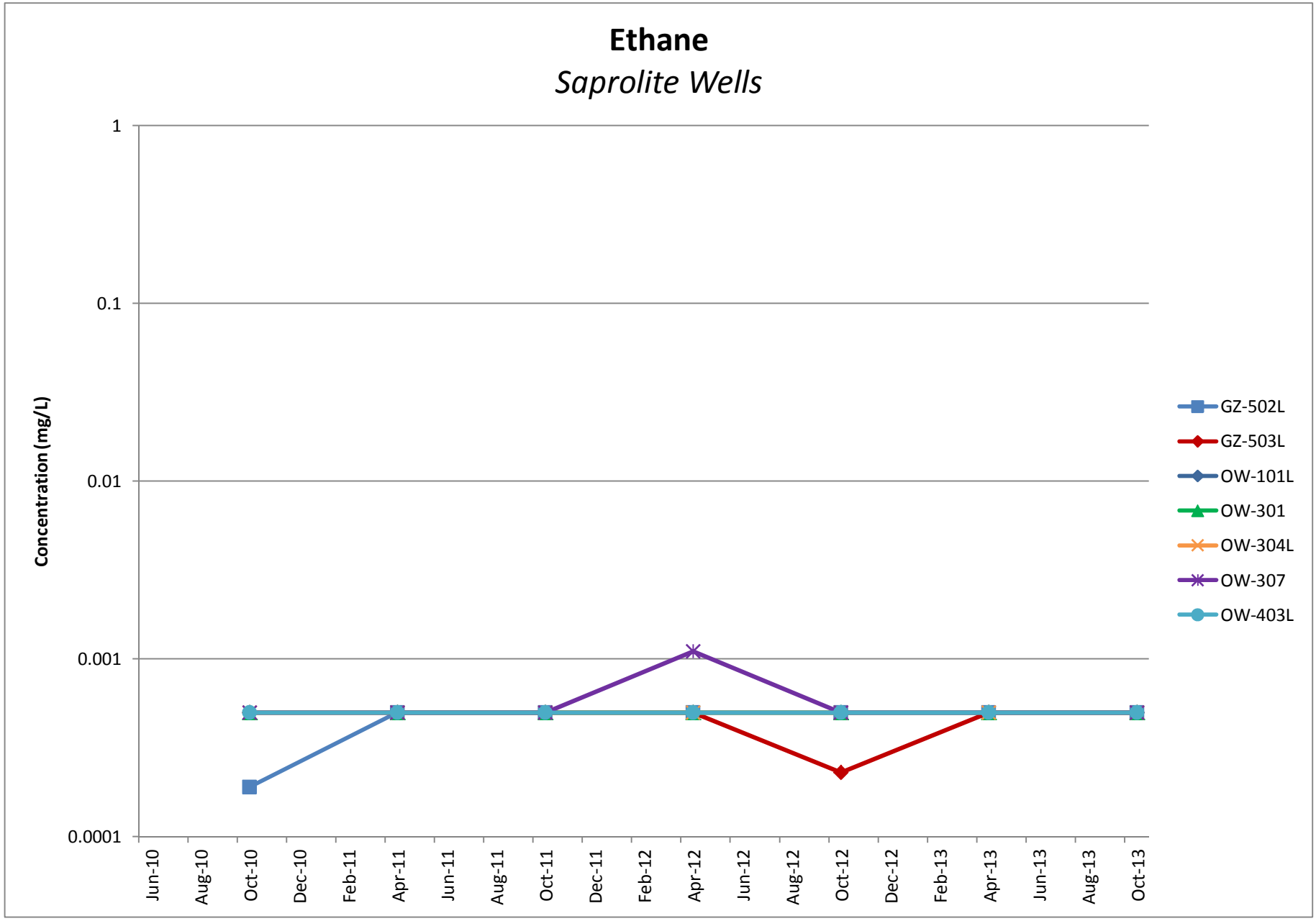
OW-101
OW-305U
OW-402U


Ethane
Saprolite Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
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Oct-13
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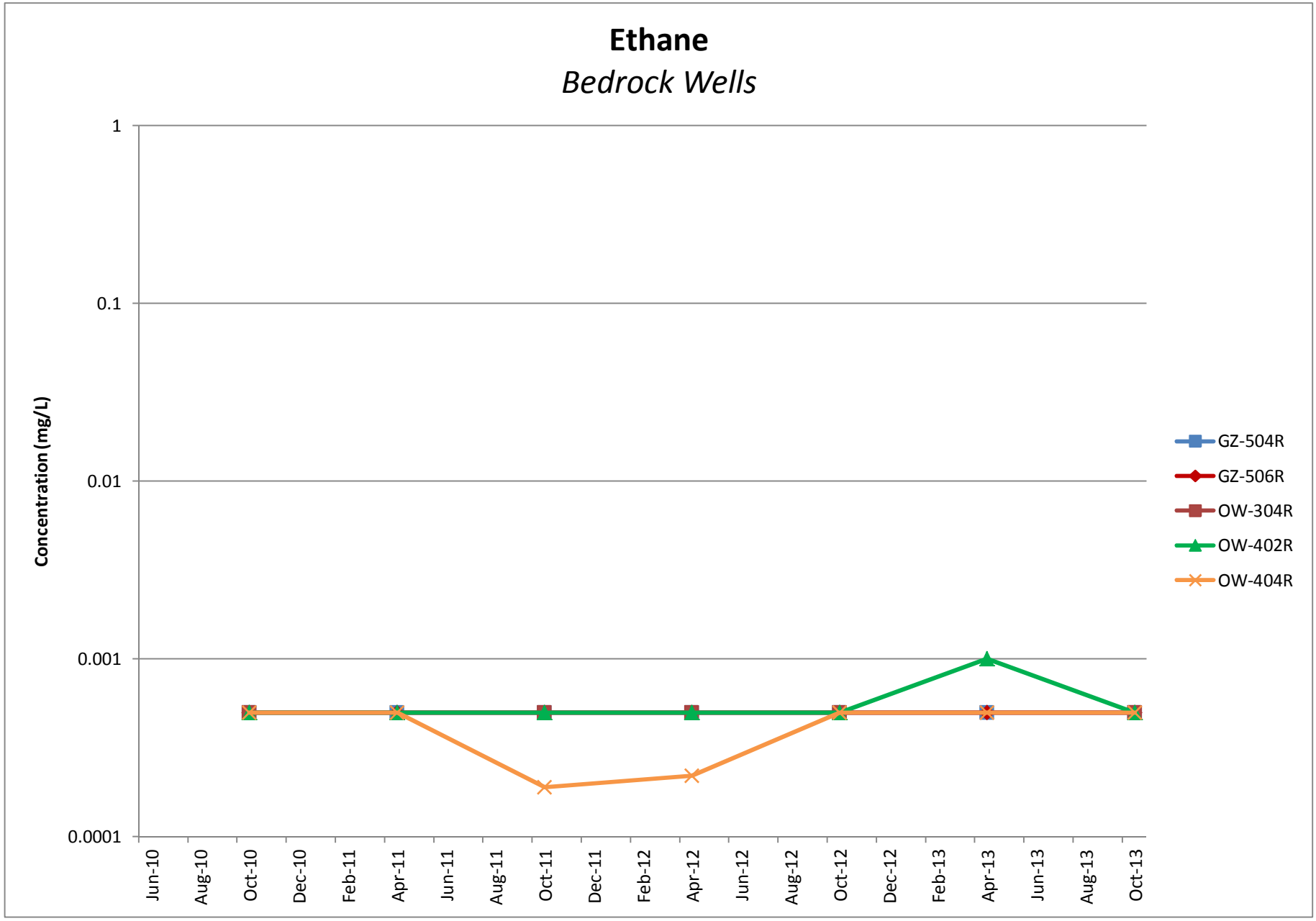
OW-304L
OW-307
OW-403L


Ethane
Bedrock Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
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Jun-13
Aug-13
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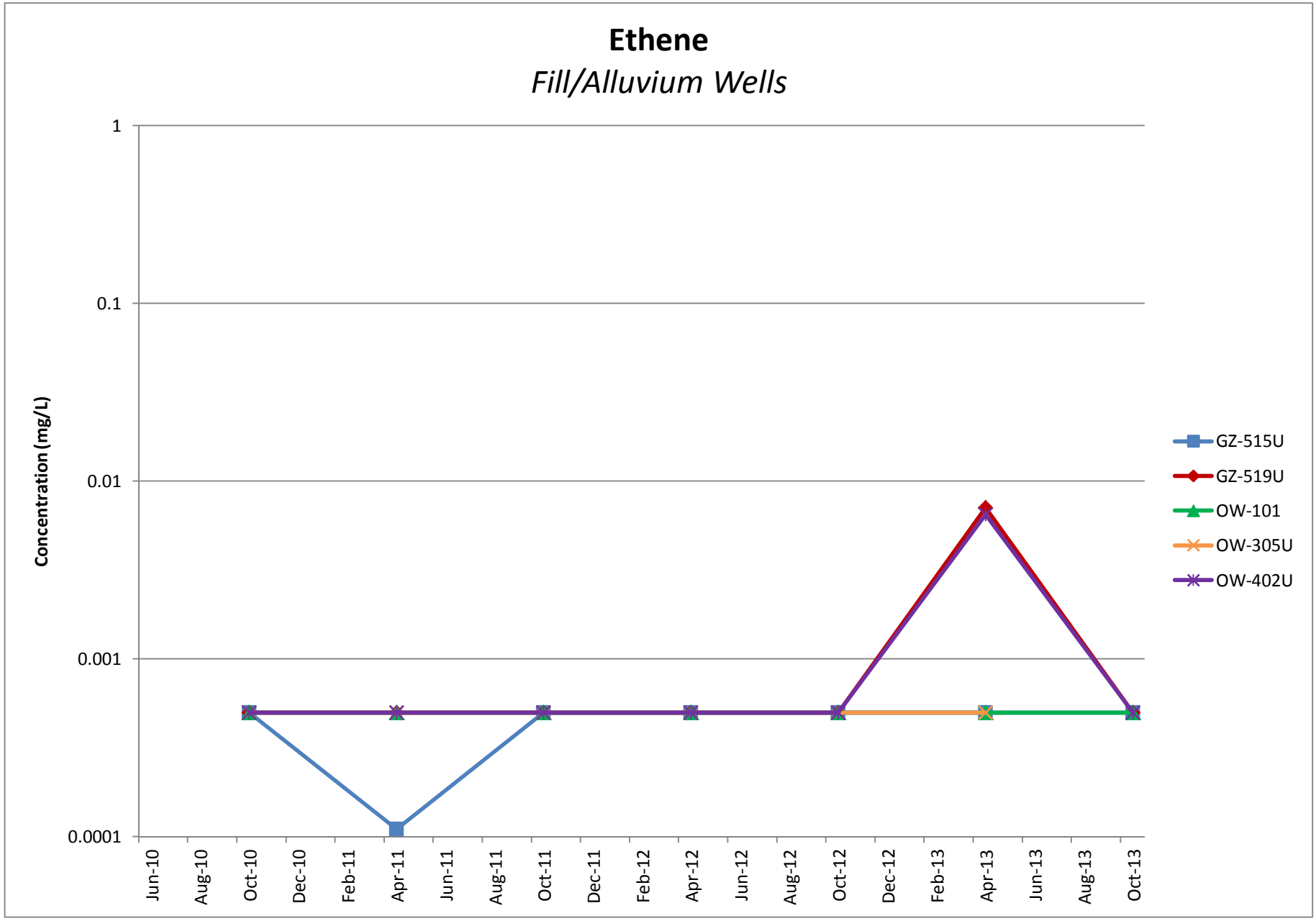
GZ-506R
OW-304R
OW-402R
OW-404R


Ethene
Fill/Alluvium Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
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Jun-13
Aug-13
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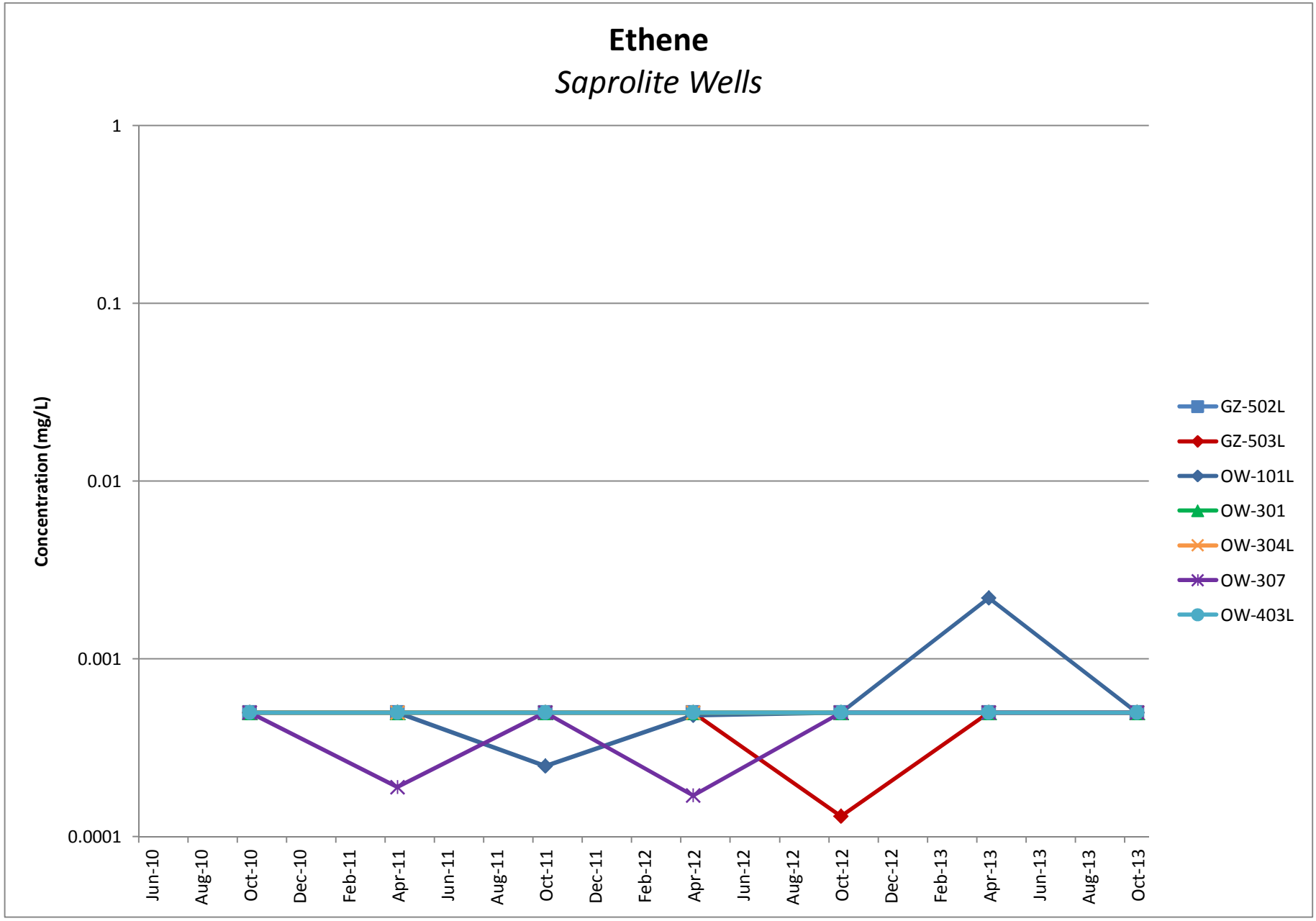
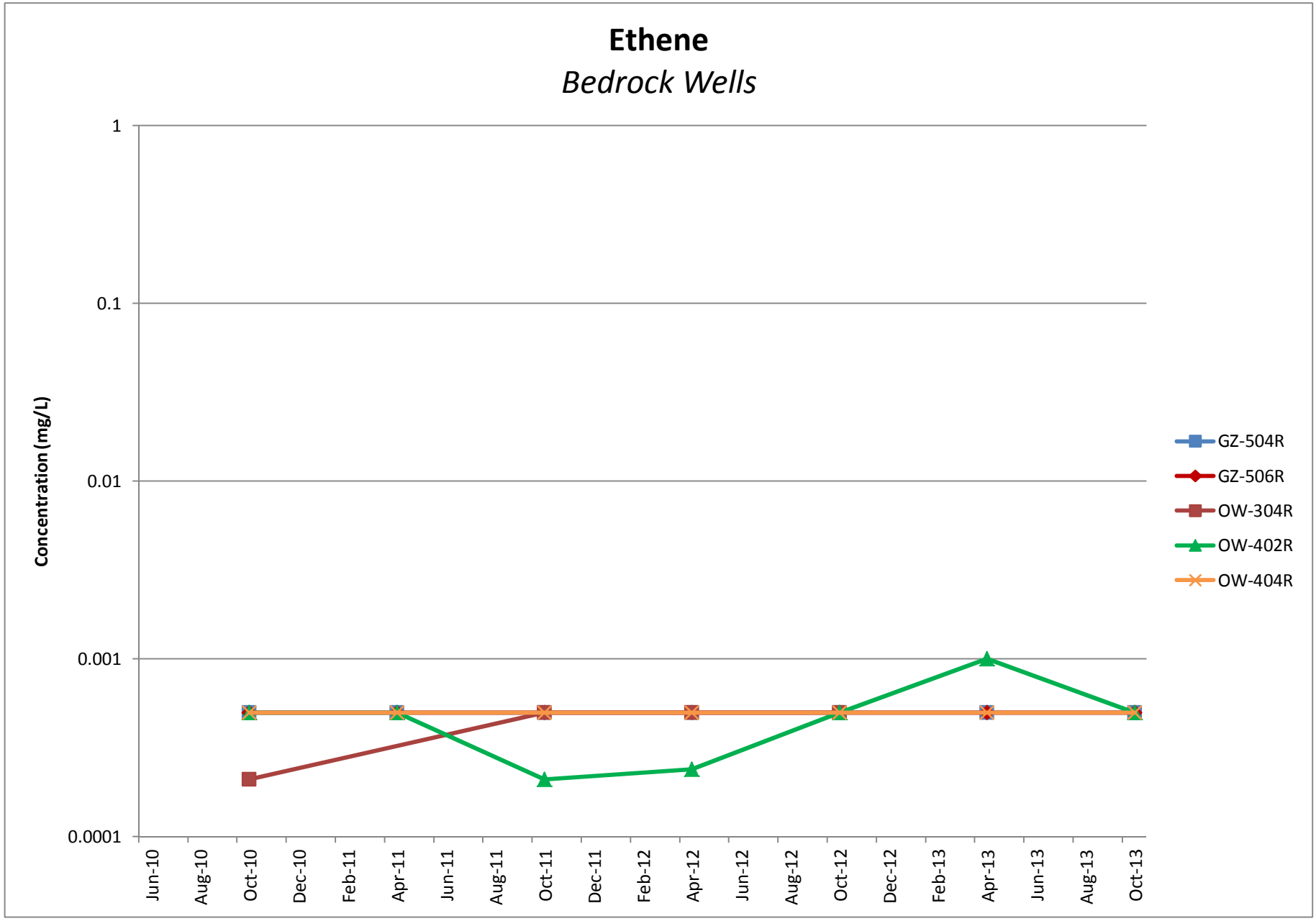
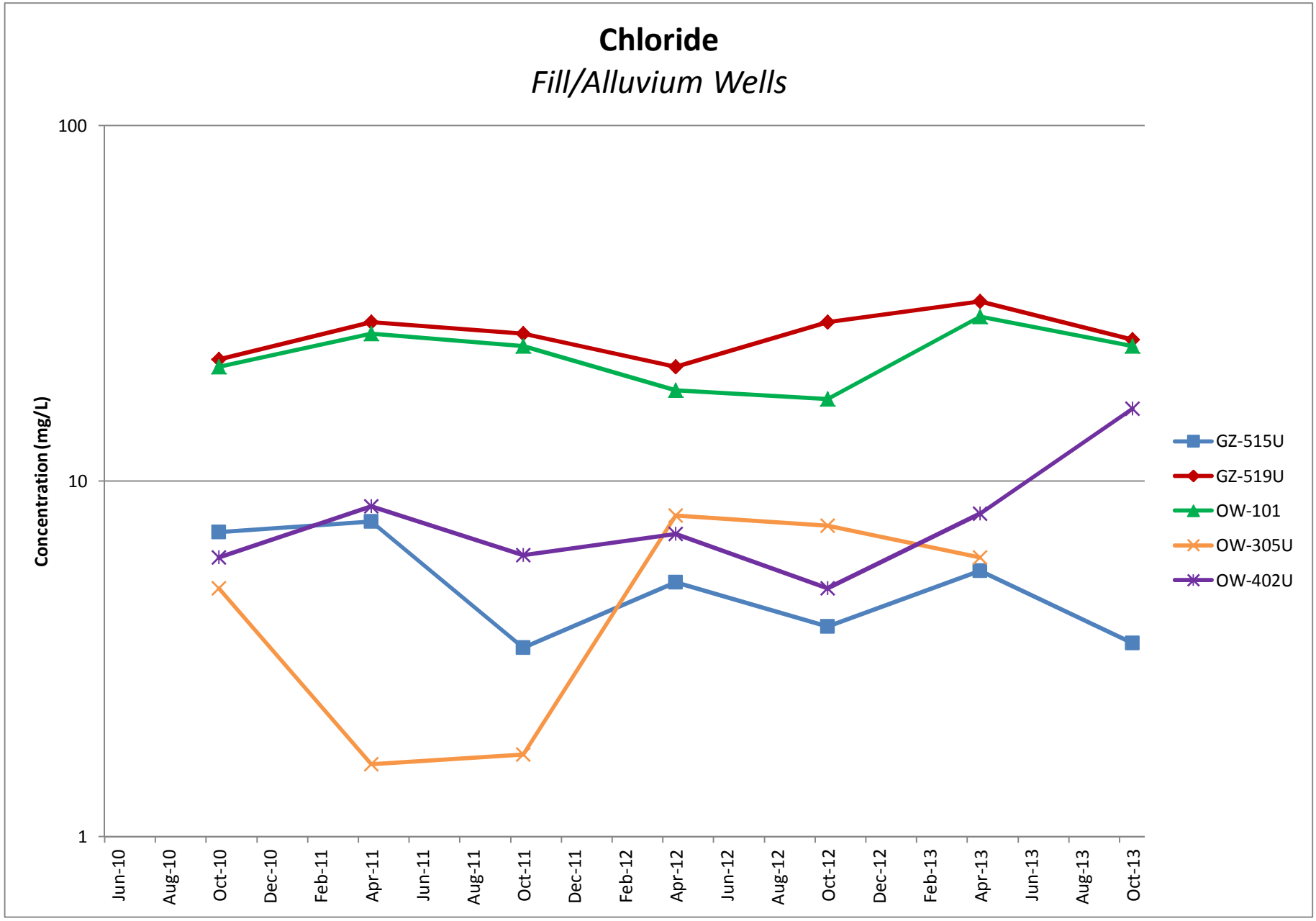
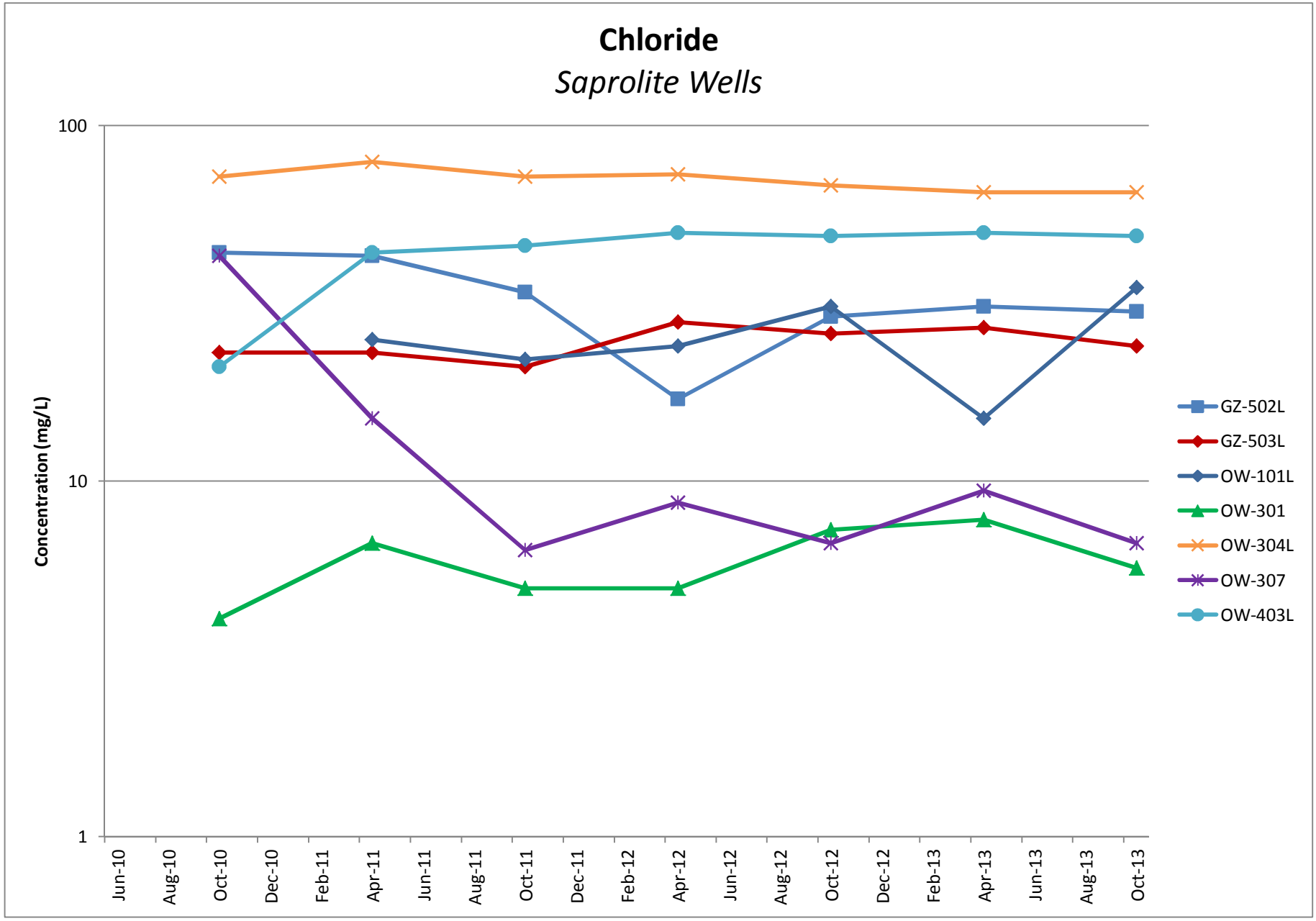
OW-101
OW-305U
OW-402U


Ethene
Saprolite Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-502L
GZ-503L
OW-101L
OW-301
OW-304L
OW-307
OW-403L


Ethene
Bedrock Wells
Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-504R
GZ-506R
OW-304R
OW-402R
OW-404R


Chloride
Fill/Alluvium Wells
Concentration (mg/L)
100
10
1
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-515U
GZ-519U
OW-101
OW-305U
OW-402U


Chloride
Saprolite Wells
Concentration (mg/L)
100
10
1
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
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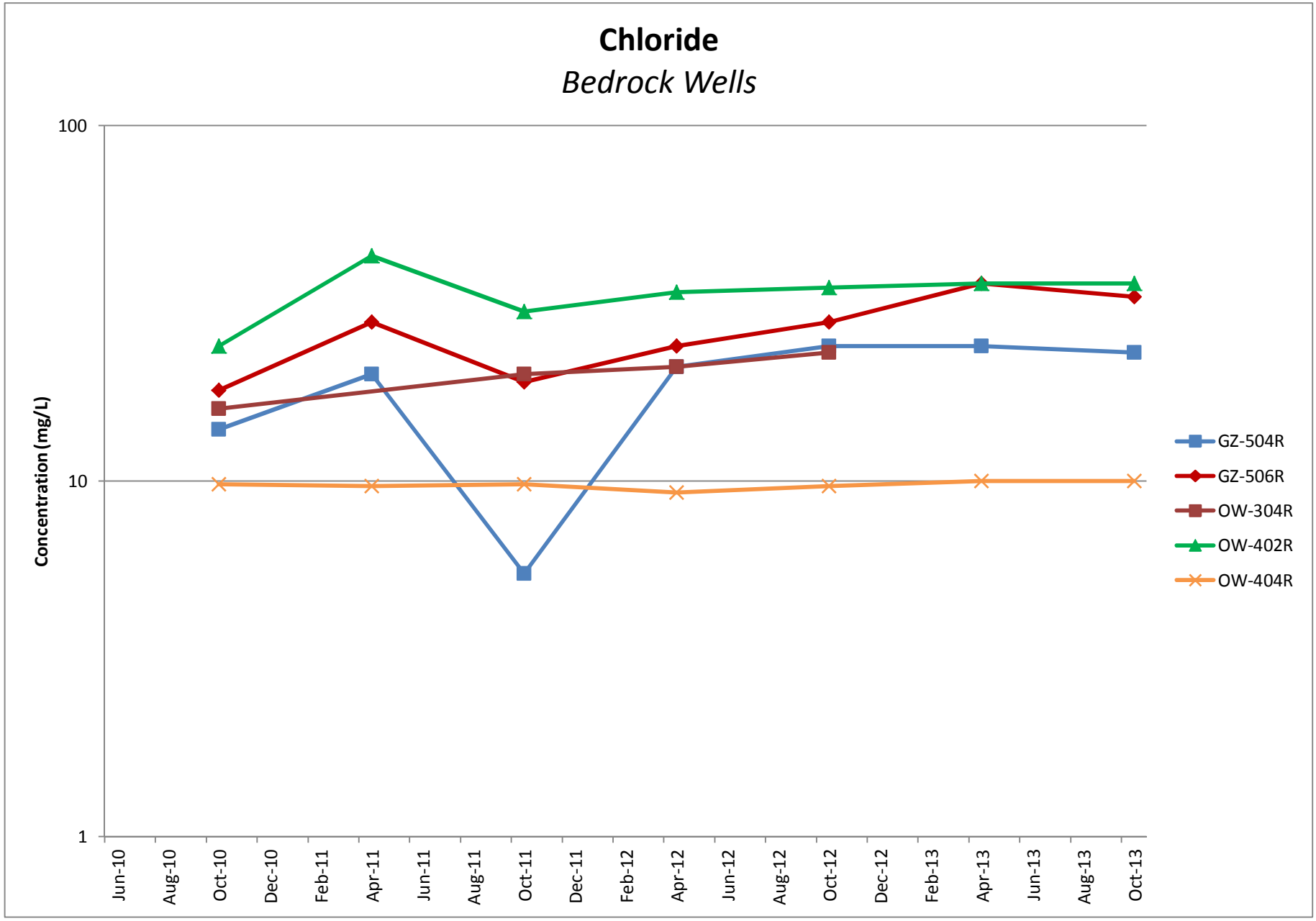
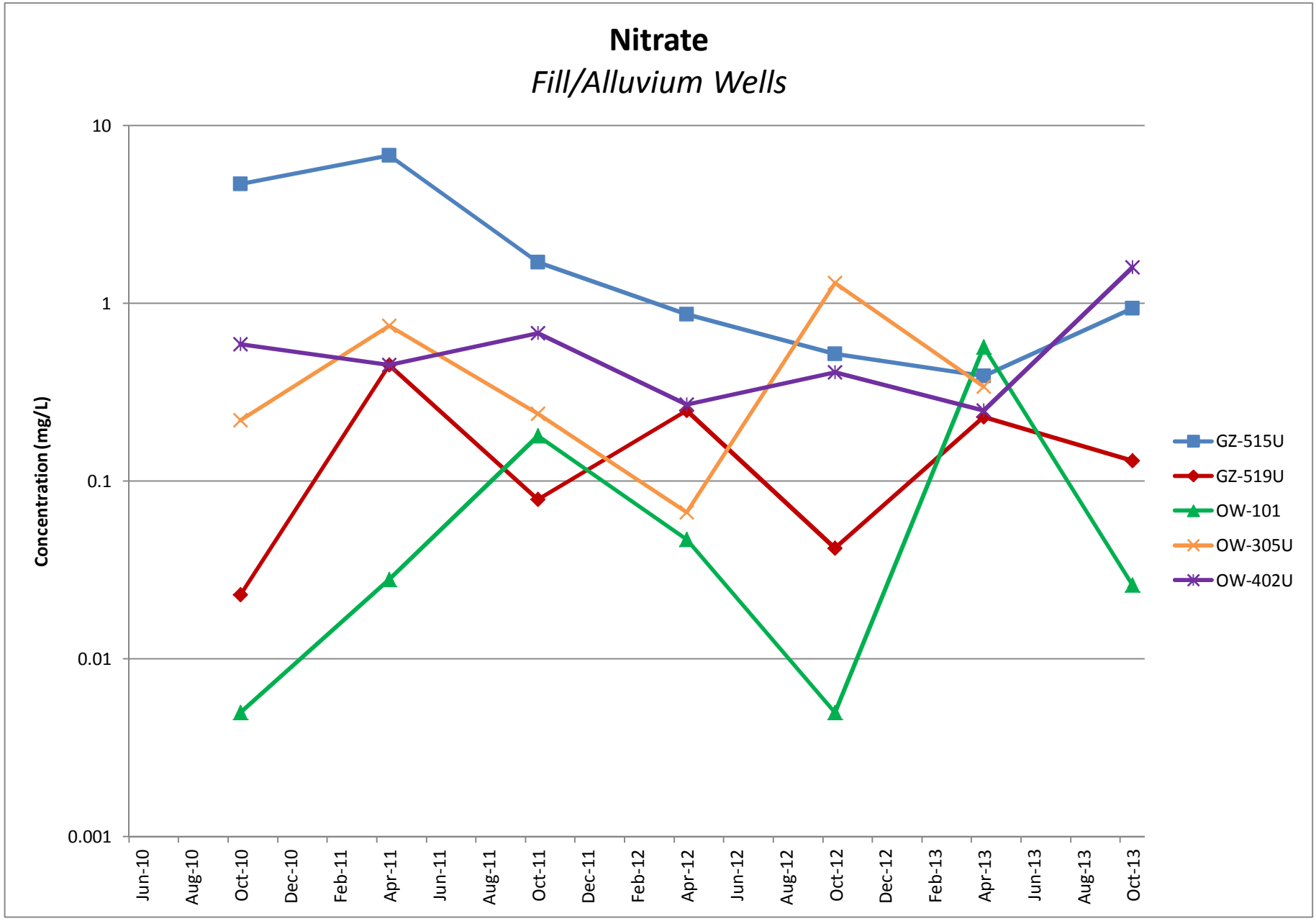
Oct-13
GZ-502L
GZ-503L
OW-101L
OW-301
OW-304L
OW-307
OW-403L


Chloride
Bedrock Wells
Concentration (mg/L)
100
10
1
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-504R
GZ-506R
OW-304R
OW-402R
OW-404R


Nitrate
Fill/Alluvium Wells
Concentration (mg/L)
10
1
0.1
0.01
0.001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
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Jun-13
Aug-13
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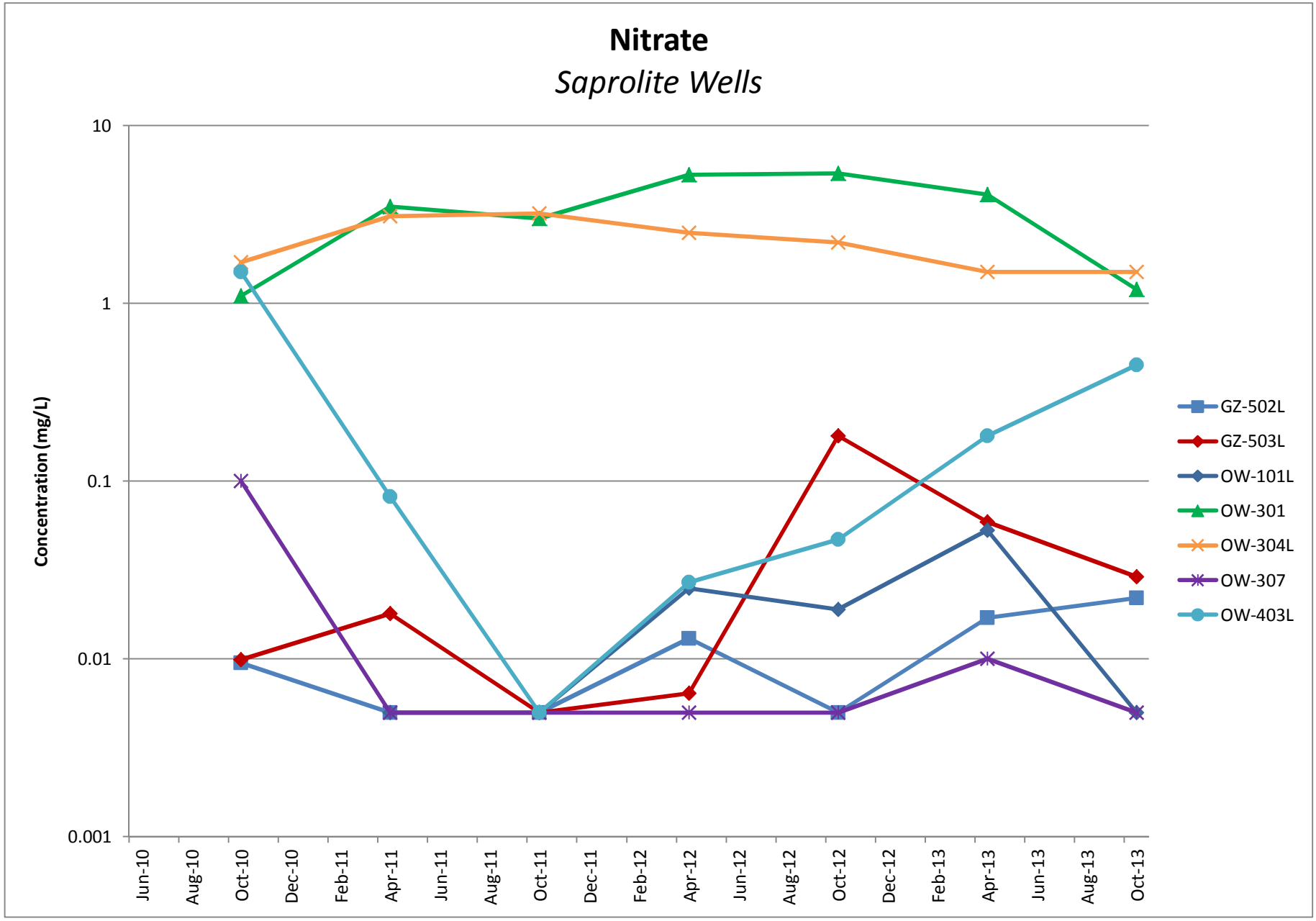
GZ-515U
GZ-519U
OW-101
OW-305U
OW-402U


Nitrate
Saprolite Wells
Concentration (mg/L)
10
1
0.1
0.01
0.001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
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Oct-13
GZ-502L
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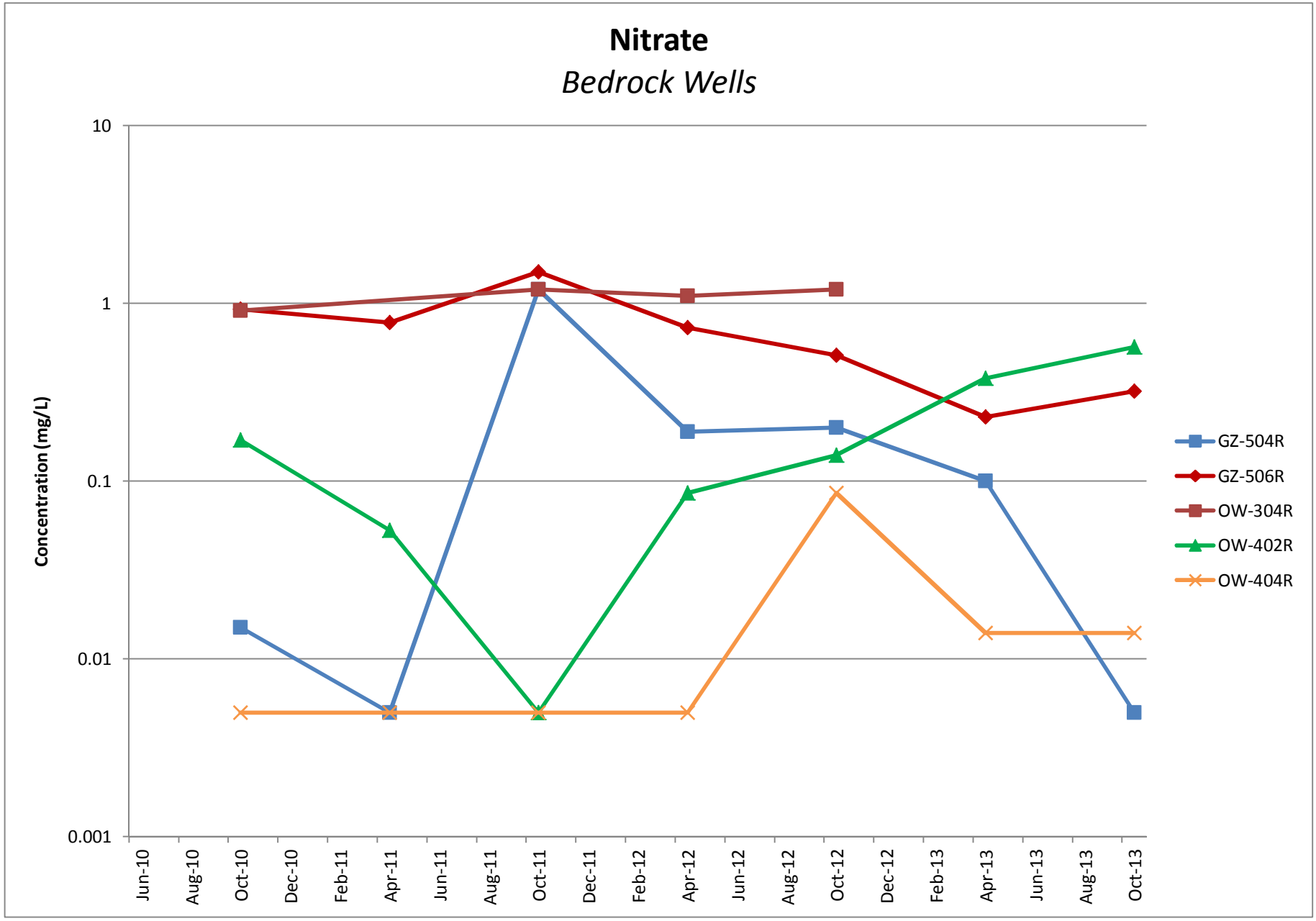
OW-301
OW-304L
OW-307
OW-403L


Nitrate
Bedrock Wells
Concentration (mg/L)
10
1
0.1
0.01
0.001
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
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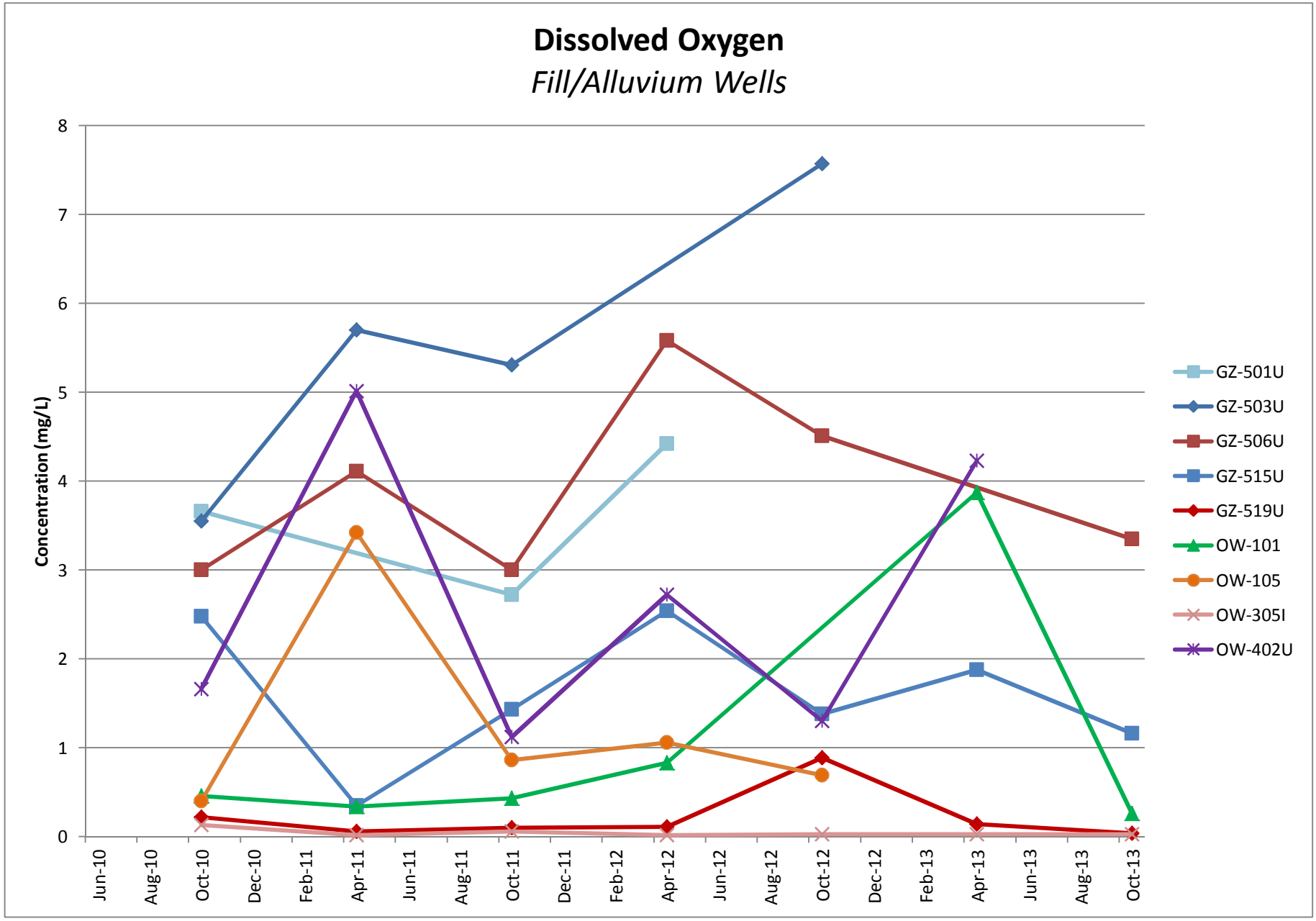
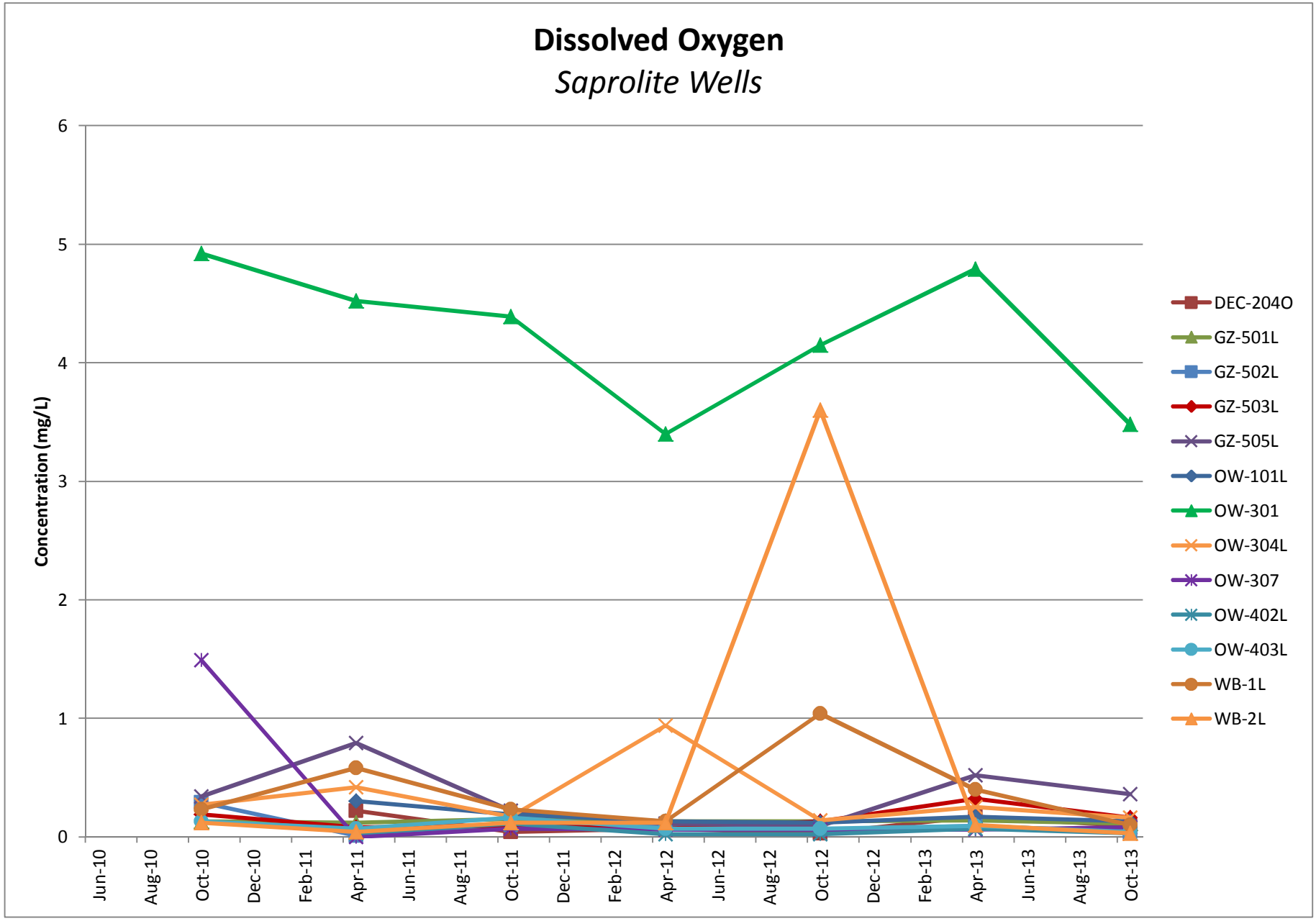
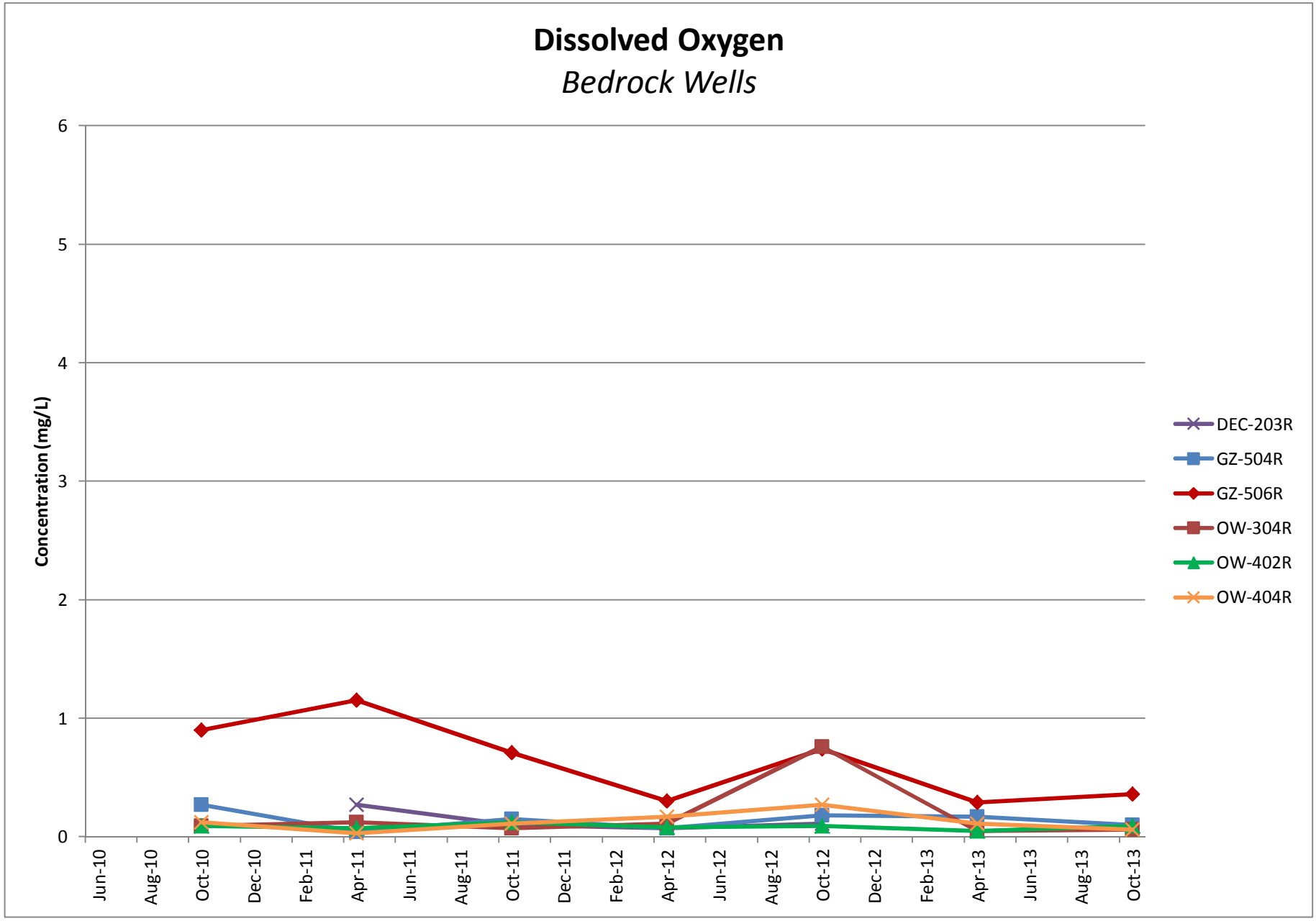
Jun-13
Aug-13
Oct-13
GZ-504R
GZ-506R
OW-304R
OW-402R
OW-404R


Dissolved Oxygen
Fill/Alluvium Wells
Concentration (mg/L)
0
1
2
3
4
5
6
7
8
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-501U
GZ-503U
GZ-506U
GZ-515U
GZ-519U
OW-101
OW-105
OW-305I
OW-402U


Dissolved Oxygen
Saprolite Wells
Concentration (mg/L)
0
1
2
3
4
5
6
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
DEC-204O
GZ-501L
GZ-502L
GZ-503L
GZ-505L
OW-101L
OW-301
OW-304L
OW-307
OW-402L
OW-403L
WB-1L
WB-2L


Dissolved Oxygen
Bedrock Wells
Concentration (mg/L)
0
1
2
3
4
5
6
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
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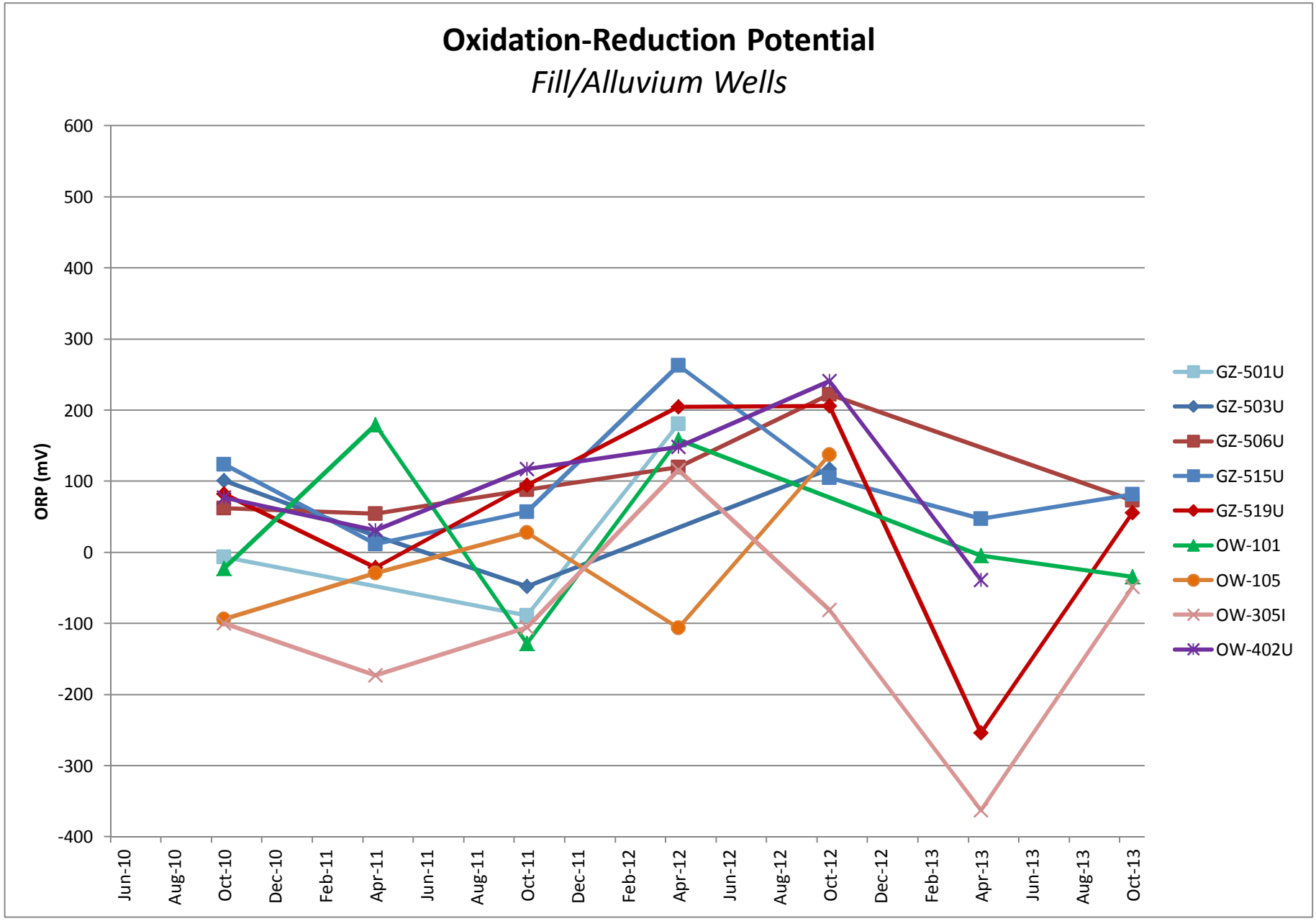
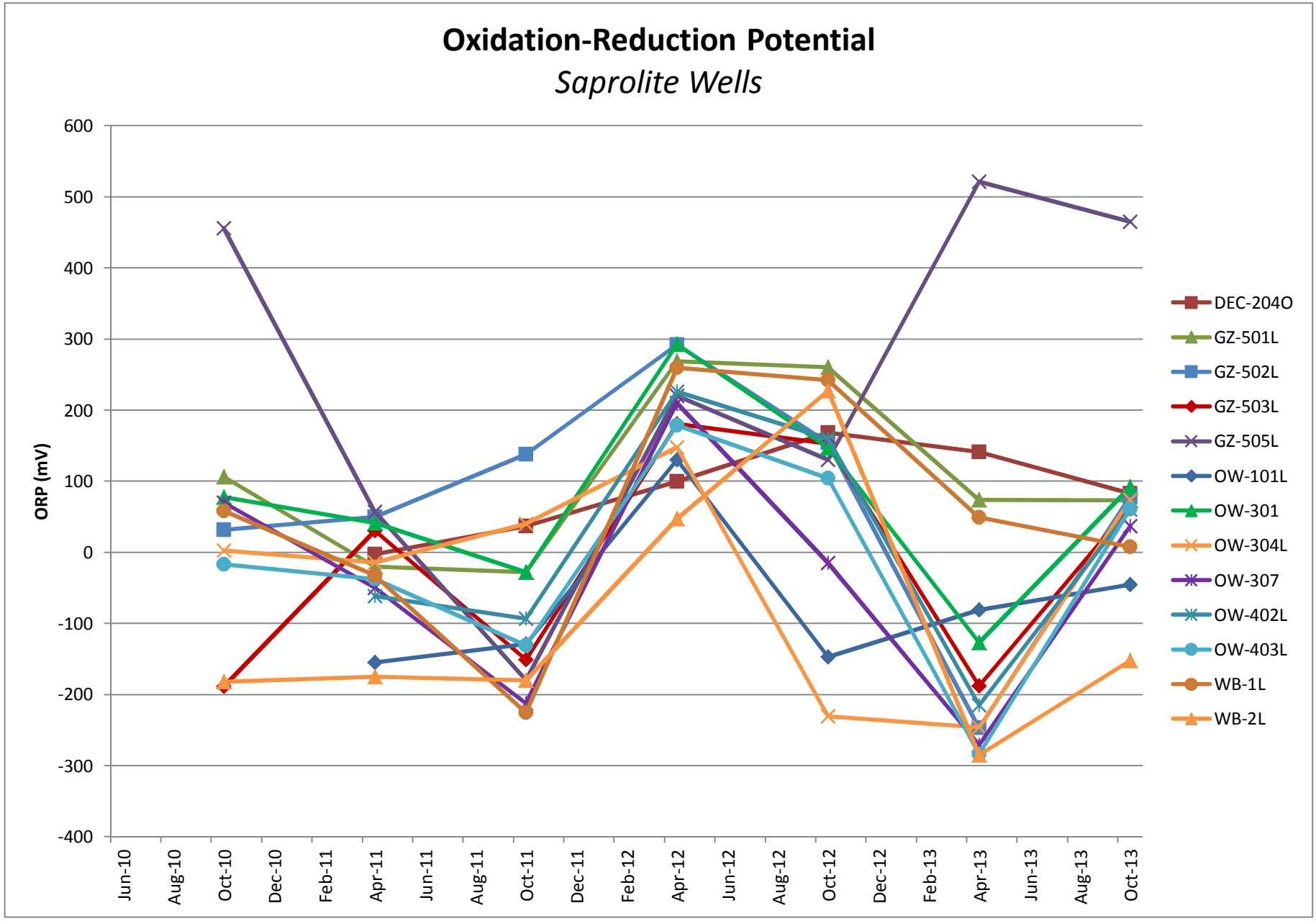
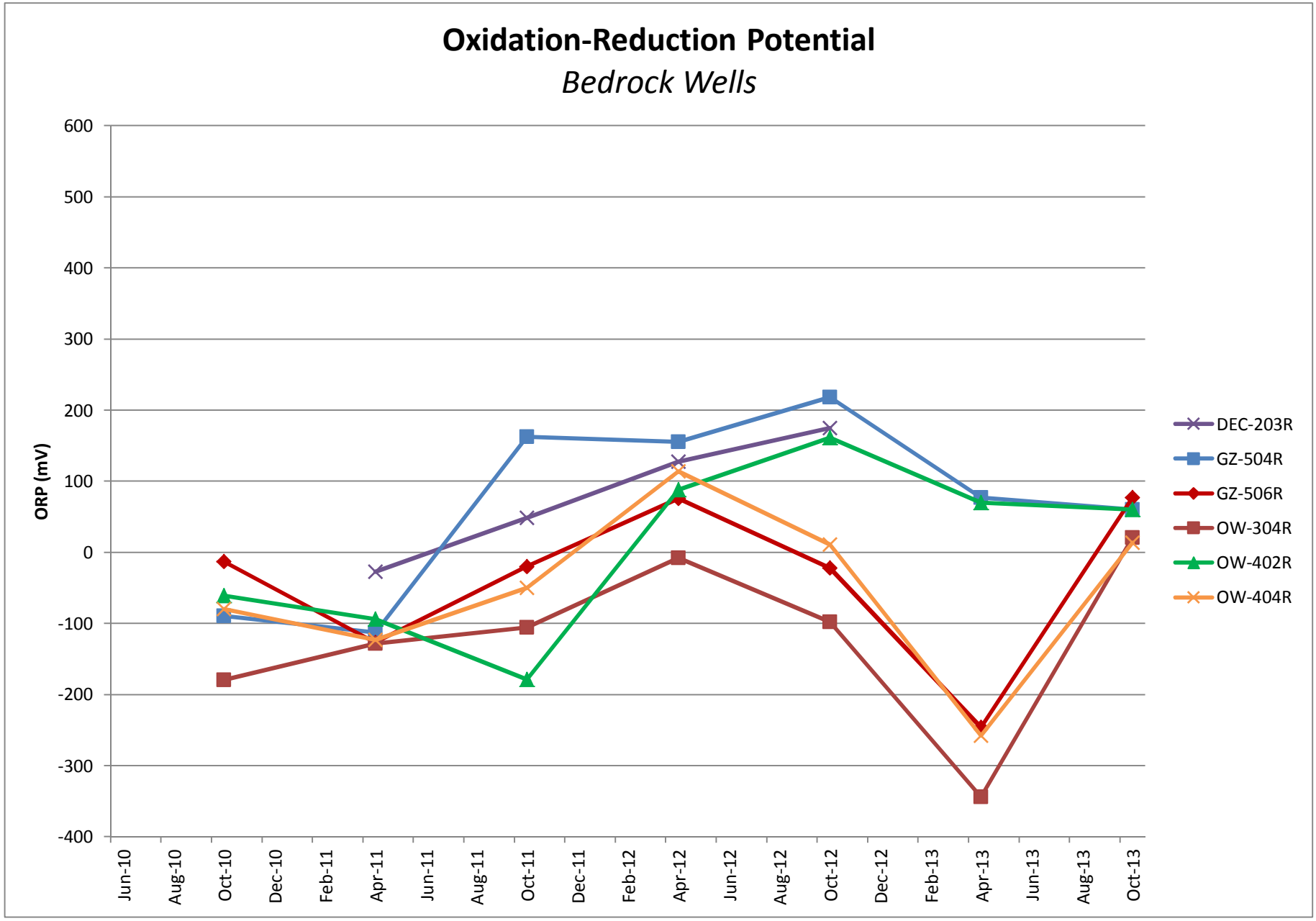
OW-304R
OW-402R
OW-404R


Oxidation-Reduction Potential
Fill/Alluvium Wells
ORP (mV)
600
500
400
300
200
100
0
-100
-200
-300
-400
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-501U
GZ-503U
GZ-506U
GZ-515U
GZ-519U
OW-101
OW-105
OW-305I
OW-402U


Oxidation-Reduction Potential
Saprolite Wells
ORP (mV)
600
500
400
300
200
100
0
-100
-200
-300
-400
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
DEC-204O
GZ-501L
GZ-502L
GZ-503L
GZ-505L
OW-101L
OW-301
OW-304L
OW-307
OW-402L
OW-403L
WB-1L
WB-2L


Oxidation-Reduction Potential
Bedrock Wells
ORP (mV)
600
500
400
300
200
100
0
-100
-200
-300
-400
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
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DEC-203R
GZ-504R
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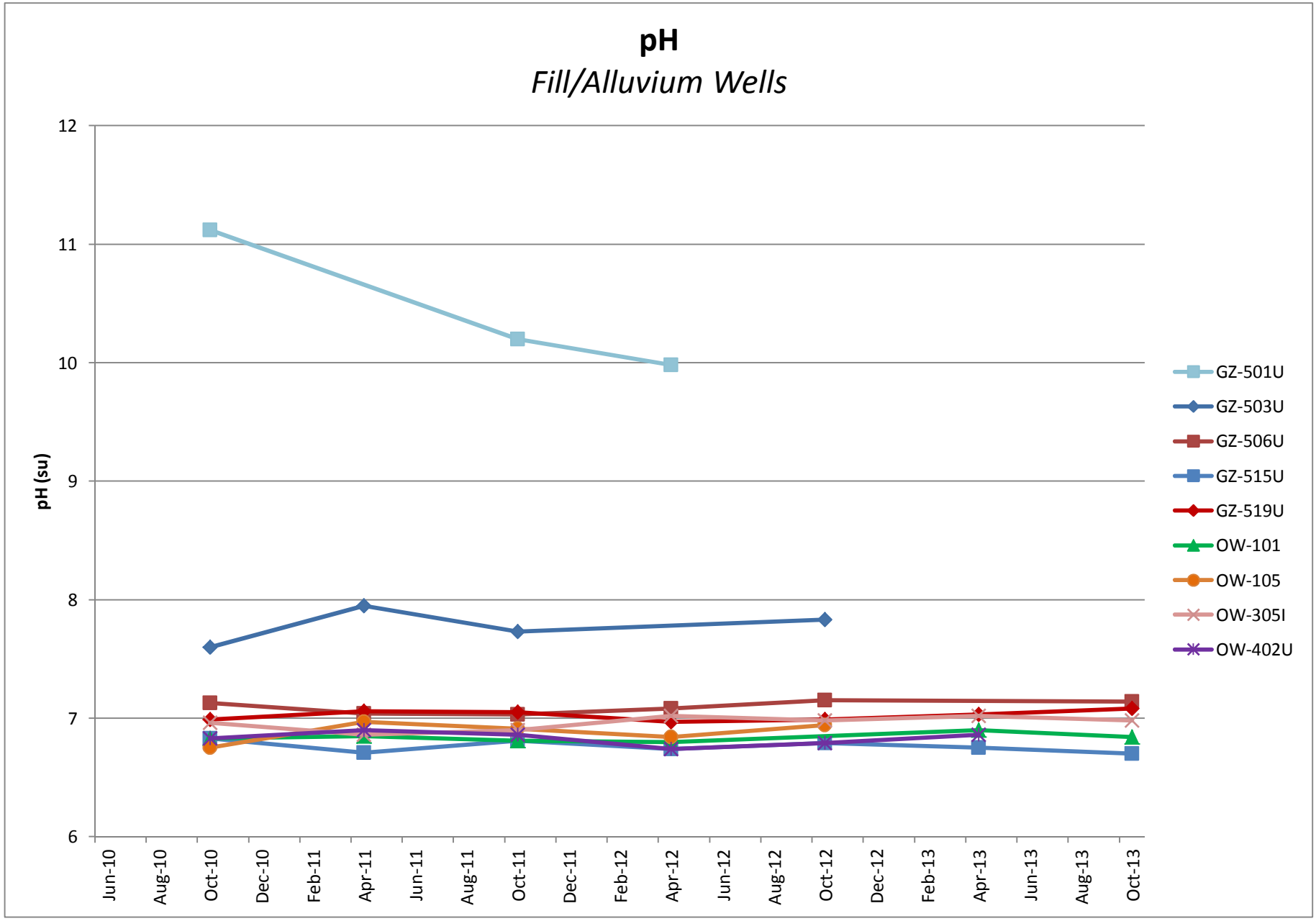
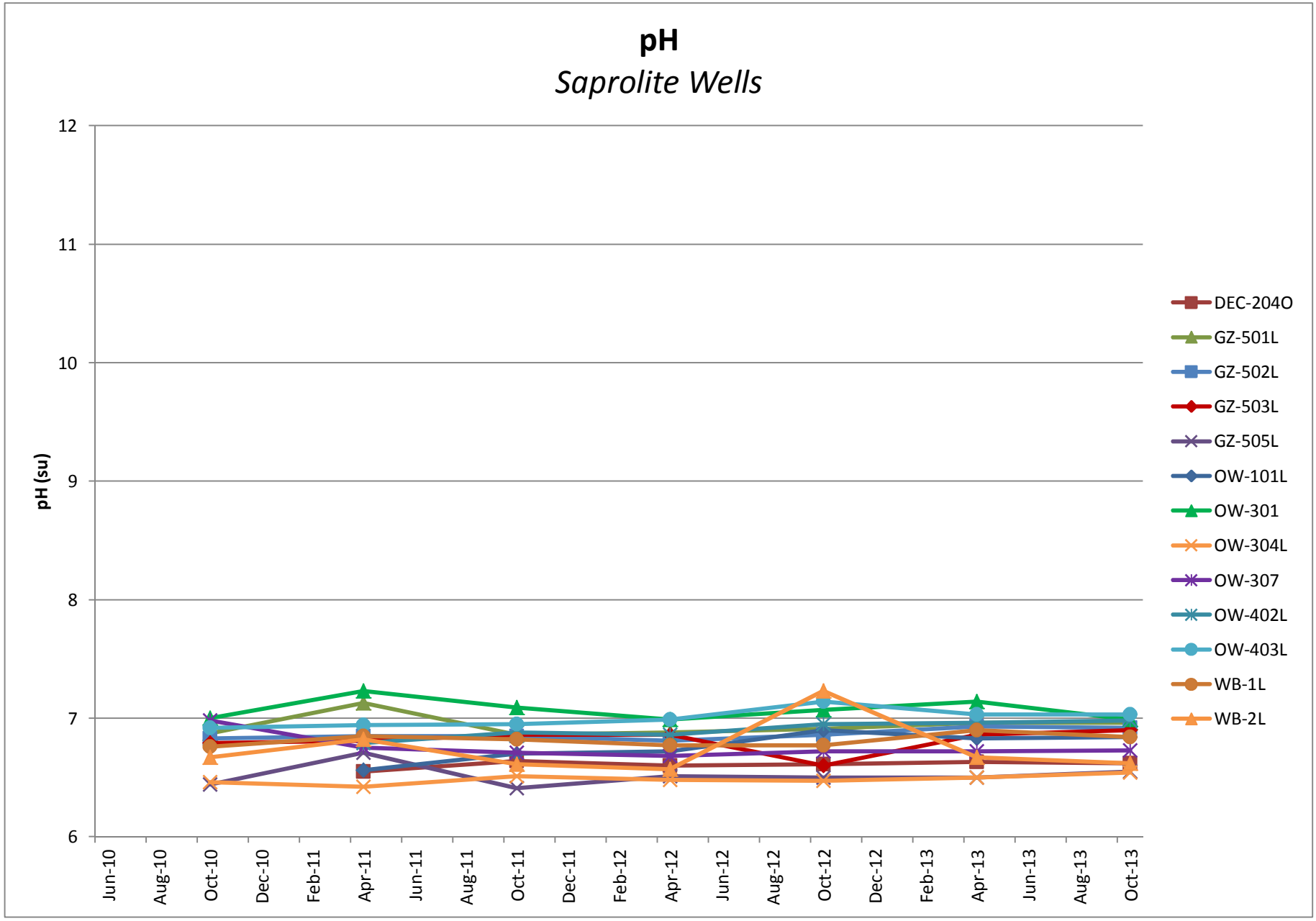
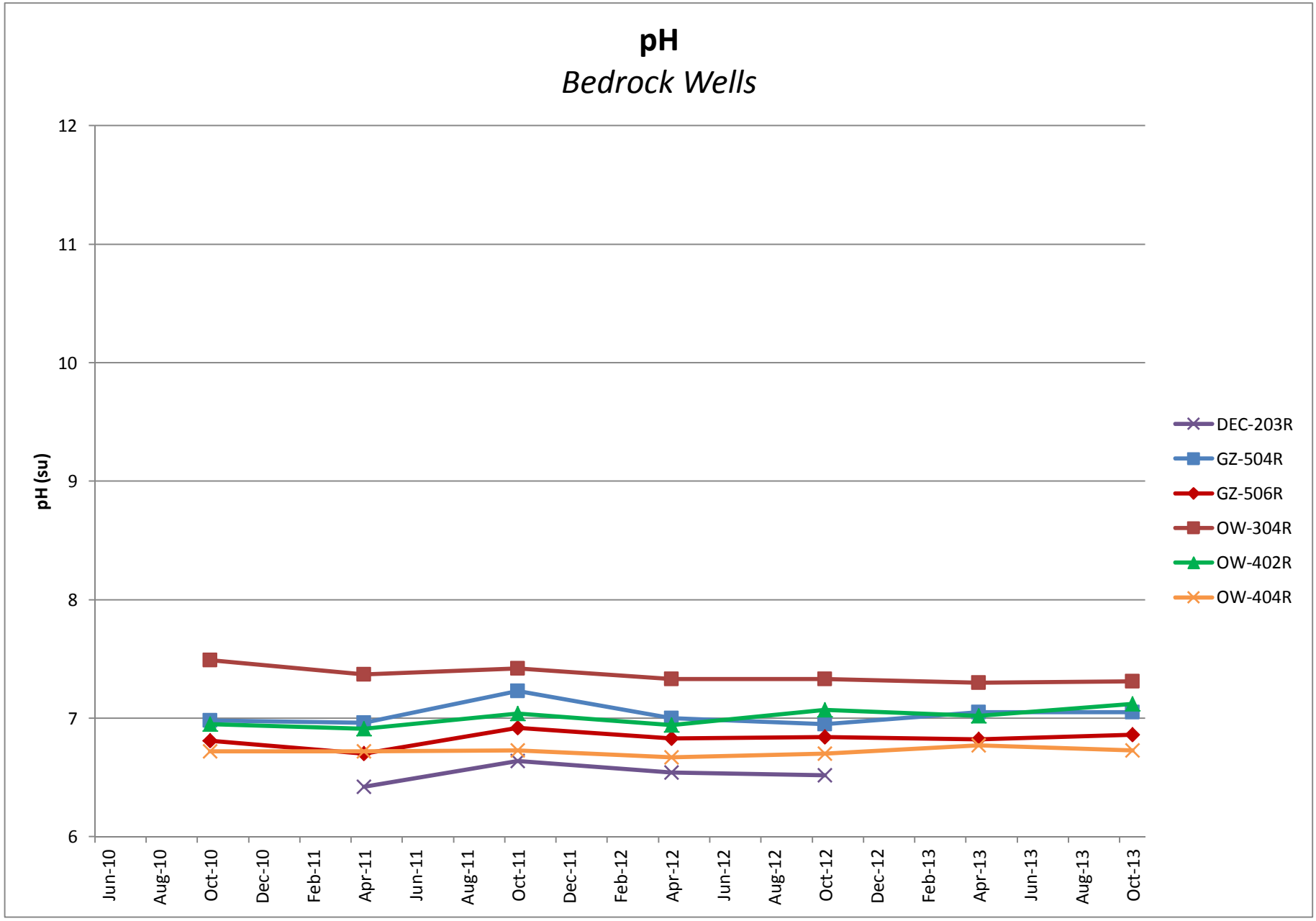
OW-304R
OW-402R
OW-404R


pH
Fill/Alluvium Wells
pH (su)
12
11
10
9
8
7
6
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
GZ-501U
GZ-503U
GZ-506U
GZ-515U
GZ-519U
OW-101
OW-105
OW-305I
OW-402U


pH
Saprolite Wells
pH (su)
12
11
10
9
8
7
6
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
DEC-204O
GZ-501L
GZ-502L
GZ-503L
GZ-505L
OW-101L
OW-301
OW-304L
OW-307
OW-402L
OW-403L
WB-1L
WB-2L


pH
Bedrock Wells
pH (su)
12
11
10
9
8
7
6
Jun-10
Aug-10
Oct-10
Dec-10
Feb-11
Apr-11
Jun-11
Aug-11
Oct-11
Dec-11
Feb-12
Apr-12
Jun-12
Aug-12
Oct-12
Dec-12
Feb-13
Apr-13
Jun-13
Aug-13
Oct-13
DEC-203R
GZ-504R
GZ-506R
OW-304R
OW-402R
OW-404R

APPENDIX E

LABORATORY ANALYTICAL REPORT

(The following pages have been excluded from the associated laboratory report: 640-45593-1: 2-5 and 128-2605. Pages are available upon request.)

Daliz Estades Santaliz

Licensed Chemist

To Whom It May Concern:

I, Daliz M. Estades Santaliz, in my capacity as Puerto Rico Certified Chemist, hereby certify the attached Analytical Results from Project HP San German IB, Project Number 640-45593-1, and Laboratory ID Numbers:

640-45593-1	640-45619-9
640-45593-2	640-45619-10
640-45593-3	640-45619-11
640-45593-4	640-45619-12
640-45593-5	640-45619-13
640-45593-6	640-45619-14
640-45593-7	640-45619-15
640-45593-8	640-45619-16
640-45593-9	640-45619-17
640-45593-10	640-45619-18
640-45593-11	640-45619-19
640-45593-12	640-45619-20
640-45593-13	640-45642-1
640-45593-14	640-45642-2
640-45619-1	640-45642-3
640-45619-2	640-45642-4
640-45619-3	640-45642-5
640-45619-4	640-45642-6
640-45619-5	640-45642-7
640-45619-6	640-45642-8
640-45619-7	640-45642-9
640-45619-8	

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Daliz M. Estades Santaliz
Lic. 4026
QUIMICO LICENCIADO

A 1464896

Lcda. Daliz M. Estades Santaliz

PO Box 727
Dorado, PR 00646-0727

ANALYTICAL REPORT

Job Number: 640-45593-1

SDG Number: 45593

Job Description: HP-San German IB

For:
GZA GeoEnvironmental, Inc.
249 Vanderbilt Ave
Norwood, MA 02062

Attention: Ms. Jessica Yeager

Approved for release.
Amy Marks
Project Manager II
11/26/2013 10:31 AM

Amy Marks, Project Manager II
2846 Industrial Plaza Drive, Tallahassee, FL, 32301
(850)878-3994
amy.marks@testamericainc.com
11/26/2013

These test results meet all the requirements of NELAC unless specified in the case narrative. All questions regarding this test report should be directed to the TestAmerica Project Manager who signed this test report. The estimated uncertainty associated with these reported results is available upon request. The results contained in this test report relate only to the samples included herein.

TestAmerica Tallahassee NELAC (FL) Certification No. E81005

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS/MSD Recovery and/or RPD exceeds the control limits
E	Result exceeded calibration range.

GC VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

Metals

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

General Chemistry

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

Glossary

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

Comments
No additional comments.

Receipt
The samples were received on 10/30/2013 at 10:00 AM, 10/31/2013 at 9:00 AM and 11/1/2013 at 9:50 AM. The samples arrived in good condition, properly preserved, and on ice. The temperatures of the 3 coolers at receipt time were 4.0º C, 7.1º C and 9.3º C.

Except:

The following samples were received at the laboratory outside the required temperature criteria: DEC-204O, FIELD BLANK, GZ-503U, GZ-504L, GZ-504R, GZ-505R, GZ-519U, GZ-601L, GZ-601R, OW-101, OW-101L, OW-301, OW-304U, OW-402L, OW-402R, OW-403L, OW-403L DUP, OW-408, GZ-506U, TRIP BLANK, Equipment Blank, Field Blank, GZ-506R, OW-102, OW-102 MS, OW-102 MSD, OW-304L, OW-304R, OW-307, OW-402U, and Trip Blank. The client was notified and instructed the laboratory to proceed with all analysis.

Method SM 5310C: The following samples were listed on the Chain of Custody (COC) for TOC analysis; however, no sample containers were received: 640-45593-10 (OW-305I DUP) and 640-45642-9 (Equipment Blank). The client was notified and confirmed that TOC is not required for these samples.

Method RSK-175: No sample volume was received for RSK-175 analysis for the following sample: 640-45642-4 (OW-402U). One 40mL vial labeled for 8260 was used for RSK-175 analysis.

GC/MS VOA
Method 8260C: The following samples were analyzed at a dilution only due to the abundance of target analytes: OW-305I (640-45593-9), OW-305I DUP (640-45593-10), OW-101 (640-45619-19), OW-307 (640-45642-3). Elevated reporting limits are provided.

Method 8260C: The laboratory control sample (LCS), laboratory control sample duplicate (LCSD), and matrix spike (MS) associated with batch 105748 recovered outside control limits for Bromomethane. This analyte was biased high in the LCS, LCSD, and MS and was not detected in the associated samples; therefore, the results have been reported and qualified.

Method 8260C: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) associated with batch 105797 recovered above the current instrument calibration range for Bromomethane. This compound was not detected in the associated samples; therefore, the results have been reported and qualified.

Method 8260C: The laboratory control sample (LCS) associated with batch 105804 recovered outside control limits for Bromomethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the results have been reported and qualified.

Method 8260C: The matrix spike (MS) associated with batch 105804 recovered outside control limits for cis-1,2-Dichloroethylene, 1,3-Dichlorobenzene, and Trichloroethene. The associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) met acceptance criteria; therefore, the results have been reported and qualified.

Method 8260C: The precision (RPD) of the matrix spike (MS) and matrix spike duplicate (MSD) associated with batch 105804 was outside control limits for 1,1,1,2-Tetrachloroethane and 1,2,3-Trichloropropane. The associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) met acceptance criteria; therefore, the results have been reported and qualified.

Method 8260C: Insufficient sample volume was available to perform a matrix spike (MS) and matrix spike duplicate (MSD) associated with batch 105826.

Method 8260C: The matrix spike (MS) associated with batch 105821 recovered outside control limits for cis-1,2-Dichloroethylene. The associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) met acceptance criteria; therefore, the results have been reported and qualified.

Method 8260C: The matrix spike (MS) and matrix spike duplicate (MSD) associated with batch 105831 recovered outside control limits for Trichloroethene. The associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) met acceptance criteria; therefore, the results have been reported and qualified.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry

Method 300.0: The matrix spike (MS) and matrix spike duplicate (MSD) associated with batch 302358 contained Sulfate greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. The results have been reported and qualified.

Method 300.0: The parent sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with batch 302358 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfate in the MS/MSD was above the instrument calibration range. The results have been reported and qualified.

No other analytical or quality issues were noted.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: Trip Blank-1 10/29/13 — Lab Sample ID: 640-45593-1

No Detections.

Client Sample ID: GZ-503L — Lab Sample ID: 640-45593-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	55		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.44	J	1.0	0.23	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.35	J	1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	2.2		1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	58		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	4.7		1.0	0.22	ug/L	1		8260C	Total/NA
Methane	30		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	24		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	35		0.50	0.25	mg/L	1		300.0	Total/NA
Nitrate as N	0.029		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	1.1		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: WB-2L — Lab Sample ID: 640-45593-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	89		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.52	J	1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.2		1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	18		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.88	J	1.0	0.22	ug/L	1		8260C	Total/NA
Total Organic Carbon	5.0		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: WB-3L — Lab Sample ID: 640-45593-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	40		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.37	J	1.0	0.23	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.3		1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.4		1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	29		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	1.9		1.0	0.22	ug/L	1		8260C	Total/NA
Methane	0.89	J	1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	23		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	31		0.50	0.25	mg/L	1		300.0	Total/NA
Nitrate as N	0.67		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.79	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-502L — Lab Sample ID: 640-45593-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	14		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.39	J	1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.30	J	1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	10		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.61	J	1.0	0.22	ug/L	1		8260C	Total/NA
Methane	3.6		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	30		0.50	0.25	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: GZ-502L (Continued) — Lab Sample ID: 640-45593-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	58		1.0	0.50	mg/L	2		300.0	Total/NA
Nitrate as N	0.022		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.99	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-515U — Lab Sample ID: 640-45593-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	13		0.50	0.25	mg/L	1		300.0	Total/NA
Nitrate as N	0.94		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	3.3		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: WB-4L — Lab Sample ID: 640-45593-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	17		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.30	J	1.0	0.23	ug/L	1		8260C	Total/NA
Trichloroethene	27		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.41	J	1.0	0.22	ug/L	1		8260C	Total/NA
Chloride	18		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	29		0.50	0.25	mg/L	1		300.0	Total/NA
Nitrate as N	1.1		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	1.0		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-501L — Lab Sample ID: 640-45593-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	11		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.27	J	1.0	0.23	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.40	J	1.0	0.19	ug/L	1		8260C	Total/NA
Trichloroethene	21		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.36	J	1.0	0.22	ug/L	1		8260C	Total/NA
Total Organic Carbon	0.83	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-305I — Lab Sample ID: 640-45593-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	280		5.0	1.1	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	14		5.0	1.3	ug/L	5		8260C	Total/NA
Trichloroethene	54		5.0	0.80	ug/L	5		8260C	Total/NA
Vinyl chloride	91		5.0	1.1	ug/L	5		8260C	Total/NA
Total Organic Carbon	1.0		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-305I DUP — Lab Sample ID: 640-45593-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	190		5.0	1.1	ug/L	5		8260C	Total/NA
trans-1,2-Dichloroethene	9.8		5.0	1.3	ug/L	5		8260C	Total/NA
Trichloroethene	39		5.0	0.80	ug/L	5		8260C	Total/NA
Vinyl chloride	63		5.0	1.1	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-404R — Lab Sample ID: 640-45593-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.71	J	1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.8		1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	94		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	1.6		1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene - DL	120		5.0	1.1	ug/L	5		8260C	Total/NA
Methane	54		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	10		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	27		0.50	0.25	mg/L	1		300.0	Total/NA
Dissolved Iron	150	J	200	50	ug/L	1		6010B	Dissolved
Nitrate as N	0.014		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	1.3		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: FIELD BLANK — Lab Sample ID: 640-45593-12

No Detections.

Client Sample ID: GZ-505L — Lab Sample ID: 640-45593-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	4.5		1.0	0.21	ug/L	1		8260C	Total/NA
Trichloroethene	0.76	J	1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.62	J	1.0	0.22	ug/L	1		8260C	Total/NA
Total Organic Carbon	3.6		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: WB-1L — Lab Sample ID: 640-45593-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.55	J	1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.5		1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	81		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.60	J	1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene - DL	120		5.0	1.1	ug/L	5		8260C	Total/NA
Total Organic Carbon	1.6		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-601L — Lab Sample ID: 640-45619-1

No Detections.

Client Sample ID: DEC-204O — Lab Sample ID: 640-45619-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.9		1.0	0.19	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.46	J	1.0	0.16	ug/L	1		8260C	Total/NA
Trichloroethene	0.46	J	1.0	0.16	ug/L	1		8260C	Total/NA
Total Organic Carbon	1.3		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-408 — Lab Sample ID: 640-45619-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	75		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.9		1.0	0.23	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OW-408 (Continued) — Lab Sample ID: 640-45619-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	19		1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	1.0		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	3.1		1.0	0.22	ug/L	1		8260C	Total/NA
Total Organic Carbon	0.77	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-506U — Lab Sample ID: 640-45619-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	0.48	J	1.0	0.21	ug/L	1		8260C	Total/NA
Trichloroethene	1.8		1.0	0.16	ug/L	1		8260C	Total/NA
Total Organic Carbon	0.82	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-503U — Lab Sample ID: 640-45619-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	16		1.0	0.21	ug/L	1		8260C	Total/NA
Trichloroethene	0.23	J	1.0	0.16	ug/L	1		8260C	Total/NA
Total Organic Carbon	5.6		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-304U — Lab Sample ID: 640-45619-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	0.79	J	1.0	0.33	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene	1.5		1.0	0.21	ug/L	1		8260C	Total/NA
Trichloroethene	0.32	J	1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.32	J	1.0	0.22	ug/L	1		8260C	Total/NA
Total Organic Carbon	3.0		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: FIELD BLANK — Lab Sample ID: 640-45619-7

No Detections.

Client Sample ID: TRIP BLANK — Lab Sample ID: 640-45619-8

No Detections.

Client Sample ID: OW-301 — Lab Sample ID: 640-45619-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.7		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	35		0.50	0.25	mg/L	1		300.0	Total/NA
Nitrate as N	1.2		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.76	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-601R — Lab Sample ID: 640-45619-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	44		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.82	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.84	J	1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.44	J	1.0	0.26	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: GZ-601R (Continued) — Lab Sample ID: 640-45619-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.69	J	1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	1.0		1.0	0.22	ug/L	1		8260C	Total/NA
Methane	19		1.0	0.18	ug/L	1		RSK-175	Total/NA
Ethene	1.8		1.0	0.55	ug/L	1		RSK-175	Total/NA
Chloride	32		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	56		1.0	0.50	mg/L	2		300.0	Total/NA
Dissolved Iron	200		200	50	ug/L	1		6010B	Dissolved
Nitrate as N	0.056		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	1.1		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-519U — Lab Sample ID: 640-45619-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	3.5		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene	53		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.31	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.4		1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.7		1.0	0.26	ug/L	1		8260C	Total/NA
Vinyl chloride	0.49	J	1.0	0.22	ug/L	1		8260C	Total/NA
Trichloroethene - DL	96		5.0	0.80	ug/L	5		8260C	Total/NA
Methane	0.34	J	1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	25		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	150		5.0	2.5	mg/L	10		300.0	Total/NA
Nitrate as N	0.13		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.58	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-403L — Lab Sample ID: 640-45619-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	55		1.0	0.21	ug/L	1		8260C	Total/NA
Dichlorodifluoromethane	5.9		1.0	0.28	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.81	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.64	J	1.0	0.23	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.98	J	1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.88	J	1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	85		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	3.6		1.0	0.22	ug/L	1		8260C	Total/NA
Methane	27		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	49		1.0	0.50	mg/L	2		300.0	Total/NA
Sulfate	78		1.0	0.50	mg/L	2		300.0	Total/NA
Nitrate as N	0.45		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.46	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-403L DUP — Lab Sample ID: 640-45619-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	58		1.0	0.21	ug/L	1		8260C	Total/NA
Dichlorodifluoromethane	5.9		1.0	0.28	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.87	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.73	J	1.0	0.23	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OW-403L DUP (Continued) — Lab Sample ID: 640-45619-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.1		1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.84	J	1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	89		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	3.6		1.0	0.22	ug/L	1		8260C	Total/NA

Client Sample ID: GZ-505R — Lab Sample ID: 640-45619-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	87		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.75	J	1.0	0.23	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.58	J	1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.80	J	1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	59		1.0	0.16	ug/L	1		8260C	Total/NA
Methane	240		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	16		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	38		0.50	0.25	mg/L	1		300.0	Total/NA
Nitrate as N	0.94		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.76	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-504L — Lab Sample ID: 640-45619-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	32		1.0	0.21	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.30	J	1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	5.3		1.0	0.16	ug/L	1		8260C	Total/NA
Total Organic Carbon	0.95	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-402L — Lab Sample ID: 640-45619-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.28	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene	77		1.0	0.21	ug/L	1		8260C	Total/NA
Dichlorodifluoromethane	1.2		1.0	0.28	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.83	J	1.0	0.23	ug/L	1		8260C	Total/NA
Tetrachloroethene	10		1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.3		1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	33		1.0	0.16	ug/L	1		8260C	Total/NA
Vinyl chloride	0.81	J	1.0	0.22	ug/L	1		8260C	Total/NA
Total Organic Carbon	0.42	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-402R — Lab Sample ID: 640-45619-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.21	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene	54		1.0	0.21	ug/L	1		8260C	Total/NA
Dichlorodifluoromethane	0.85	J	1.0	0.28	ug/L	1		8260C	Total/NA
Tetrachloroethene	6.3		1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.82	J	1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	23		1.0	0.16	ug/L	1		8260C	Total/NA
Methane	0.94	J	1.0	0.18	ug/L	1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-402R (Continued) — Lab Sample ID: 640-45619-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	36		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	70		1.0	0.50	mg/L	2		300.0	Total/NA
Nitrate as N	0.57		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.48	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-504R — Lab Sample ID: 640-45619-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	3.5		1.0	0.21	ug/L	1		8260C	Total/NA
1,2-Dichlorobenzene	0.21	J	1.0	0.14	ug/L	1		8260C	Total/NA
Trichloroethene	6.5		1.0	0.16	ug/L	1		8260C	Total/NA
Methane	1.0		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	23		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	82		1.0	0.50	mg/L	2		300.0	Total/NA
Total Organic Carbon	0.81	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-101 — Lab Sample ID: 640-45619-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	1300		20	4.2	ug/L	20		8260C	Total/NA
1,1-Dichloroethene	17	J	20	4.6	ug/L	20		8260C	Total/NA
trans-1,2-Dichloroethene	230		20	5.2	ug/L	20		8260C	Total/NA
Trichloroethene	980		20	3.2	ug/L	20		8260C	Total/NA
Vinyl chloride	11	J	20	4.4	ug/L	20		8260C	Total/NA
Methane	92		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	24		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	22		0.50	0.25	mg/L	1		300.0	Total/NA
Dissolved Iron	120	J	200	50	ug/L	1		6010B	Dissolved
Nitrate as N	0.026		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	1.5		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-101L — Lab Sample ID: 640-45619-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	81		1.0	0.21	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.58	J	1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.98	J	1.0	0.26	ug/L	1		8260C	Total/NA
Vinyl chloride	2.4		1.0	0.22	ug/L	1		8260C	Total/NA
Methane	0.50	J	1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	35		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	52		1.0	0.50	mg/L	2		300.0	Total/NA
Dissolved Iron	1700		200	50	ug/L	1		6010B	Dissolved
Total Organic Carbon	0.62	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: Field Blank — Lab Sample ID: 640-45642-1

No Detections.

Client Sample ID: Trip Blank — Lab Sample ID: 640-45642-2

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-307 — Lab Sample ID: 640-45642-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	540		10	2.1	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	6.6	J	10	2.6	ug/L	10		8260C	Total/NA
Trichloroethene	480		10	1.6	ug/L	10		8260C	Total/NA
Vinyl chloride	12		10	2.2	ug/L	10		8260C	Total/NA
Methane	370		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	6.7		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	15		0.50	0.25	mg/L	1		300.0	Total/NA
Dissolved Iron	260		200	50	ug/L	1		6010B	Dissolved
Total Organic Carbon	0.86	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-402U — Lab Sample ID: 640-45642-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.16	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene	31		1.0	0.21	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.89	J	1.0	0.26	ug/L	1		8260C	Total/NA
Trichloroethene	14		1.0	0.16	ug/L	1		8260C	Total/NA
Chloride	16		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	54		1.0	0.50	mg/L	2		300.0	Total/NA
Nitrate as N	1.6		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	1.4		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: GZ-506R — Lab Sample ID: 640-45642-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.31	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene	56		1.0	0.21	ug/L	1		8260C	Total/NA
Dichlorodifluoromethane	0.96	J	1.0	0.28	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.68	J	1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.88	J	1.0	0.26	ug/L	1		8260C	Total/NA
Vinyl chloride	0.24	J	1.0	0.22	ug/L	1		8260C	Total/NA
Trichloroethene - DL	94		5.0	0.80	ug/L	5		8260C	Total/NA
Chloride	33		0.50	0.25	mg/L	1		300.0	Total/NA
Sulfate	53		1.0	0.50	mg/L	2		300.0	Total/NA
Nitrate as N	0.32		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	0.56	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-102 — Lab Sample ID: 640-45642-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethylene	0.43	J	1.0	0.21	ug/L	1		8260C	Total/NA
Trichloroethene	1.0		1.0	0.16	ug/L	1		8260C	Total/NA
Total Organic Carbon	0.49	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-304R — Lab Sample ID: 640-45642-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.20	J	1.0	0.12	ug/L	1		8260C	Total/NA
Dichlorodifluoromethane	1.1		1.0	0.28	ug/L	1		8260C	Total/NA
1,2-Dichloroethane	2.1		1.0	0.15	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OW-304R (Continued) — Lab Sample ID: 640-45642-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3		1.0	0.23	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.8		1.0	0.26	ug/L	1		8260C	Total/NA
Vinyl chloride	40		1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene - DL	340		20	4.2	ug/L	20		8260C	Total/NA
Trichloroethene - DL	1200		20	3.2	ug/L	20		8260C	Total/NA
Total Organic Carbon	0.74	J	1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: OW-304L — Lab Sample ID: 640-45642-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.17	J	1.0	0.12	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	5.8		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	5.8		1.0	0.23	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.3		1.0	0.19	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.8		1.0	0.26	ug/L	1		8260C	Total/NA
Vinyl chloride	15		1.0	0.22	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethylene - DL	550		20	4.2	ug/L	20		8260C	Total/NA
Trichloroethene - DL	1200		20	3.2	ug/L	20		8260C	Total/NA
Methane	4.5		1.0	0.18	ug/L	1		RSK-175	Total/NA
Chloride	65		1.0	0.50	mg/L	2		300.0	Total/NA
Sulfate	81		1.0	0.50	mg/L	2		300.0	Total/NA
Dissolved Iron	95	J	200	50	ug/L	1		6010B	Dissolved
Nitrate as N	1.5		0.010	0.0054	mg/L	1		Nitrate by calc	Total/NA
Total Organic Carbon	2.5		1.0	0.35	mg/L	1		SM 5310C	Total/NA

Client Sample ID: Equipment Blank — Lab Sample ID: 640-45642-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.30	J	1.0	0.16	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Trip Blank-1 10/29/13

Lab Sample ID: 640-45593-1

Date Collected: 10/29/13 00:00

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 15:28	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 15:28	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 15:28	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 15:28	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 15:28	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 15:28	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 15:28	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 15:28	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/07/13 15:28	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 15:28	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 15:28	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 15:28	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 15:28	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 15:28	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 15:28	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 15:28	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 15:28	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 15:28	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/07/13 15:28	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 15:28	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 15:28	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 15:28	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 15:28	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 15:28	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/07/13 15:28	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 15:28	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 15:28	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 15:28	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/07/13 15:28	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 15:28	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 15:28	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/07/13 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/07/13 15:28*	*1*
Dibromofluoromethane	*104*		*83 - 123*		*11/07/13 15:28*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/07/13 15:28*	*1*

Client Sample ID: GZ-503L

Lab Sample ID: 640-45593-2

Date Collected: 10/29/13 14:00

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 16:14	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 16:14	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 16:14	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 16:14	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 16:14	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 16:14	1

Client Sample ID: GZ-503L

Date Collected: 10/29/13 14:00
Date Received: 10/30/13 10:00

Lab Sample ID: 640-45593-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 16:14	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 16:14	1
cis-1,2-Dichloroethylene	**55**		1.0	0.21	ug/L			11/07/13 16:14	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 16:14	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 16:14	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 16:14	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 16:14	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 16:14	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 16:14	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 16:14	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 16:14	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 16:14	1
1,1-Dichloroethene	**0.44**	**J**	1.0	0.23	ug/L			11/07/13 16:14	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 16:14	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 16:14	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 16:14	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 16:14	1
Tetrachloroethene	**0.35**	**J**	1.0	0.19	ug/L			11/07/13 16:14	1
trans-1,2-Dichloroethene	**2.2**		1.0	0.26	ug/L			11/07/13 16:14	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 16:14	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 16:14	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 16:14	1
Trichloroethene	**58**		1.0	0.16	ug/L			11/07/13 16:14	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 16:14	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 16:14	1
Vinyl chloride	**4.7**		1.0	0.22	ug/L			11/07/13 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 119*		*11/07/13 16:14*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/07/13 16:14*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/07/13 16:14*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**30**		1.0	0.18	ug/L			11/01/13 11:05	1
Ethane	<1.0		1.0	0.75	ug/L			11/01/13 11:05	1
Ethene	<1.0		1.0	0.55	ug/L			11/01/13 11:05	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24**		0.50	0.25	mg/L			11/08/13 14:01	1
Sulfate	**35**		0.50	0.25	mg/L			11/08/13 14:01	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		10/31/13 14:30	11/01/13 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.029**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**1.1**		1.0	0.35	mg/L			10/30/13 19:04	1

Client Sample ID: WB-2L

Lab Sample ID: 640-45593-3

Date Collected: 10/29/13 13:55

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 16:37	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 16:37	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 16:37	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 16:37	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 16:37	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 16:37	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 16:37	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 16:37	1
cis-1,2-Dichloroethylene	**89**		1.0	0.21	ug/L			11/07/13 16:37	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 16:37	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 16:37	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 16:37	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 16:37	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 16:37	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 16:37	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 16:37	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 16:37	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 16:37	1
1,1-Dichloroethene	**0.52**	**J**	1.0	0.23	ug/L			11/07/13 16:37	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 16:37	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 16:37	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 16:37	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 16:37	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 16:37	1
trans-1,2-Dichloroethene	**1.2**		1.0	0.26	ug/L			11/07/13 16:37	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 16:37	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 16:37	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 16:37	1
Trichloroethene	**18**		1.0	0.16	ug/L			11/07/13 16:37	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 16:37	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 16:37	1
Vinyl chloride	**0.88**	**J**	1.0	0.22	ug/L			11/07/13 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/07/13 16:37*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/07/13 16:37*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/07/13 16:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**5.0**		1.0	0.35	mg/L			10/30/13 19:51	1

Client Sample ID: WB-3L

Lab Sample ID: 640-45593-4

Date Collected: 10/29/13 12:45

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 17:00	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 17:00	1

Client Sample ID: WB-3L

Date Collected: 10/29/13 12:45
Date Received: 10/30/13 10:00

Lab Sample ID: 640-45593-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 17:00	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 17:00	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 17:00	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 17:00	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 17:00	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 17:00	1
cis-1,2-Dichloroethylene	**40**		1.0	0.21	ug/L			11/07/13 17:00	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 17:00	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 17:00	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 17:00	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 17:00	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 17:00	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 17:00	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 17:00	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 17:00	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 17:00	1
1,1-Dichloroethene	**0.37**	**J**	1.0	0.23	ug/L			11/07/13 17:00	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 17:00	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 17:00	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 17:00	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 17:00	1
Tetrachloroethene	**1.3**		1.0	0.19	ug/L			11/07/13 17:00	1
trans-1,2-Dichloroethene	**1.4**		1.0	0.26	ug/L			11/07/13 17:00	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 17:00	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 17:00	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 17:00	1
Trichloroethene	**29**		1.0	0.16	ug/L			11/07/13 17:00	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 17:00	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 17:00	1
Vinyl chloride	**1.9**		1.0	0.22	ug/L			11/07/13 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/07/13 17:00*	*1*
Dibromofluoromethane	*102*		*83 - 123*		*11/07/13 17:00*	*1*
Toluene-d8 (Surr)	*102*		*78 - 126*		*11/07/13 17:00*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.89**	**J**	1.0	0.18	ug/L			11/01/13 11:14	1
Ethane	<1.0		1.0	0.75	ug/L			11/01/13 11:14	1
Ethene	<1.0		1.0	0.55	ug/L			11/01/13 11:14	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23**		0.50	0.25	mg/L			11/08/13 14:15	1
Sulfate	**31**		0.50	0.25	mg/L			11/08/13 14:15	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		10/31/13 14:30	11/01/13 18:23	1

Client Sample ID: WB-3L

Lab Sample ID: 640-45593-4

Date Collected: 10/29/13 12:45

Matrix: Water

Date Received: 10/30/13 10:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.67**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.79**	**J**	1.0	0.35	mg/L			10/30/13 20:49	1

Client Sample ID: GZ-502L

Lab Sample ID: 640-45593-5

Date Collected: 10/29/13 13:00

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 17:23	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 17:23	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 17:23	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 17:23	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 17:23	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 17:23	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 17:23	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 17:23	1
cis-1,2-Dichloroethylene	**14**		1.0	0.21	ug/L			11/07/13 17:23	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 17:23	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 17:23	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 17:23	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 17:23	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 17:23	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 17:23	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 17:23	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 17:23	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 17:23	1
1,1-Dichloroethene	**0.39**	**J**	1.0	0.23	ug/L			11/07/13 17:23	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 17:23	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 17:23	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 17:23	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 17:23	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 17:23	1
trans-1,2-Dichloroethene	**0.30**	**J**	1.0	0.26	ug/L			11/07/13 17:23	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 17:23	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 17:23	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 17:23	1
Trichloroethene	**10**		1.0	0.16	ug/L			11/07/13 17:23	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 17:23	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 17:23	1
Vinyl chloride	**0.61**	**J**	1.0	0.22	ug/L			11/07/13 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/07/13 17:23*	*1*
Dibromofluoromethane	*101*		*83 - 123*		*11/07/13 17:23*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/07/13 17:23*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**3.6**		1.0	0.18	ug/L			11/01/13 11:35	1

Client Sample ID: GZ-502L

Lab Sample ID: 640-45593-5

Date Collected: 10/29/13 13:00

Matrix: Water

Date Received: 10/30/13 10:00

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethane	<1.0		1.0	0.75	ug/L			11/01/13 11:35	1
Ethene	<1.0		1.0	0.55	ug/L			11/01/13 11:35	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30**		0.50	0.25	mg/L			11/08/13 14:28	1
Sulfate	**58**		1.0	0.50	mg/L			11/09/13 06:15	2

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		10/31/13 14:30	11/01/13 18:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.022**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.99**	**J**	1.0	0.35	mg/L			10/30/13 21:03	1

Client Sample ID: GZ-515U

Lab Sample ID: 640-45593-6

Date Collected: 10/29/13 10:10

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 17:45	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 17:45	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 17:45	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 17:45	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 17:45	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 17:45	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 17:45	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 17:45	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/07/13 17:45	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 17:45	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 17:45	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 17:45	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 17:45	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 17:45	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 17:45	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 17:45	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 17:45	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 17:45	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/07/13 17:45	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 17:45	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 17:45	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 17:45	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 17:45	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 17:45	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/07/13 17:45	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 17:45	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 17:45	1

Client Sample ID: GZ-515U

Lab Sample ID: 640-45593-6

Date Collected: 10/29/13 10:10

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 17:45	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/07/13 17:45	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 17:45	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 17:45	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/07/13 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/07/13 17:45*	*1*
Dibromofluoromethane	*101*		*83 - 123*		*11/07/13 17:45*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/07/13 17:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/01/13 12:27	1
Ethane	<1.0		1.0	0.75	ug/L			11/01/13 12:27	1
Ethene	<1.0		1.0	0.55	ug/L			11/01/13 12:27	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.5**		0.50	0.25	mg/L			11/08/13 14:41	1
Sulfate	**13**		0.50	0.25	mg/L			11/08/13 14:41	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		10/31/13 14:30	11/01/13 18:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.94**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**3.3**		1.0	0.35	mg/L			10/30/13 21:17	1

Client Sample ID: WB-4L

Lab Sample ID: 640-45593-7

Date Collected: 10/29/13 11:25

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 18:08	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 18:08	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 18:08	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 18:08	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 18:08	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 18:08	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 18:08	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 18:08	1
cis-1,2-Dichloroethylene	**17**		1.0	0.21	ug/L			11/07/13 18:08	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 18:08	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 18:08	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 18:08	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 18:08	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 18:08	1

Client Sample ID: WB-4L

Lab Sample ID: 640-45593-7

Date Collected: 10/29/13 11:25

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 18:08	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 18:08	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 18:08	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 18:08	1
1,1-Dichloroethene	**0.30**	**J**	1.0	0.23	ug/L			11/07/13 18:08	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 18:08	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 18:08	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 18:08	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 18:08	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 18:08	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/07/13 18:08	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 18:08	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 18:08	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 18:08	1
Trichloroethene	**27**		1.0	0.16	ug/L			11/07/13 18:08	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 18:08	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 18:08	1
Vinyl chloride	**0.41**	**J**	1.0	0.22	ug/L			11/07/13 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/07/13 18:08*	*1*
Dibromofluoromethane	*98*		*83 - 123*		*11/07/13 18:08*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/07/13 18:08*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/01/13 12:41	1
Ethane	<1.0		1.0	0.75	ug/L			11/01/13 12:41	1
Ethene	<1.0		1.0	0.55	ug/L			11/01/13 12:41	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18**		0.50	0.25	mg/L			11/08/13 14:55	1
Sulfate	**29**		0.50	0.25	mg/L			11/08/13 14:55	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		10/31/13 14:30	11/01/13 18:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.1**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**1.0**		1.0	0.35	mg/L			10/30/13 21:31	1

Client Sample ID: GZ-501L

Lab Sample ID: 640-45593-8

Date Collected: 10/29/13 12:20

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 18:31	1

Client Sample ID: GZ-501L

Lab Sample ID: 640-45593-8

Date Collected: 10/29/13 12:20

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 18:31	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 18:31	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 18:31	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 18:31	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 18:31	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 18:31	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 18:31	1
cis-1,2-Dichloroethylene	**11**		1.0	0.21	ug/L			11/07/13 18:31	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 18:31	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 18:31	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 18:31	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 18:31	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 18:31	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 18:31	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 18:31	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 18:31	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 18:31	1
1,1-Dichloroethene	**0.27**	**J**	1.0	0.23	ug/L			11/07/13 18:31	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 18:31	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 18:31	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 18:31	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 18:31	1
Tetrachloroethene	**0.40**	**J**	1.0	0.19	ug/L			11/07/13 18:31	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/07/13 18:31	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 18:31	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 18:31	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 18:31	1
Trichloroethene	**21**		1.0	0.16	ug/L			11/07/13 18:31	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 18:31	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 18:31	1
Vinyl chloride	**0.36**	**J**	1.0	0.22	ug/L			11/07/13 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/07/13 18:31*	*1*
Dibromofluoromethane	*101*		*83 - 123*		*11/07/13 18:31*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/07/13 18:31*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.83**	**J**	1.0	0.35	mg/L			10/30/13 21:45	1

Client Sample ID: OW-305I

Lab Sample ID: 640-45593-9

Date Collected: 10/29/13 11:00

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<5.0		5.0	2.2	ug/L			11/08/13 15:42	5
Bromoform	<5.0		5.0	0.90	ug/L			11/08/13 15:42	5
Bromomethane	<5.0		5.0	2.6	ug/L			11/08/13 15:42	5

Client Sample ID: OW-305I

Lab Sample ID: 640-45593-9

Date Collected: 10/29/13 11:00

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<5.0		5.0	0.90	ug/L			11/08/13 15:42	5
Chlorobenzene	<5.0		5.0	0.65	ug/L			11/08/13 15:42	5
Chloroethane	<5.0		5.0	1.7	ug/L			11/08/13 15:42	5
Chloroform	<5.0		5.0	0.60	ug/L			11/08/13 15:42	5
Chloromethane	<5.0		5.0	0.90	ug/L			11/08/13 15:42	5
cis-1,2-Dichloroethylene	**280**		5.0	1.1	ug/L			11/08/13 15:42	5
cis-1,3-Dichloropropene	<5.0		5.0	0.70	ug/L			11/08/13 15:42	5
Dibromochloromethane	<5.0		5.0	0.75	ug/L			11/08/13 15:42	5
Dibromomethane	<5.0		5.0	1.0	ug/L			11/08/13 15:42	5
1,2-Dichlorobenzene	<5.0		5.0	0.70	ug/L			11/08/13 15:42	5
1,3-Dichlorobenzene	<5.0		5.0	0.85	ug/L			11/08/13 15:42	5
1,4-Dichlorobenzene	<5.0		5.0	1.0	ug/L			11/08/13 15:42	5
Dichlorodifluoromethane	<5.0		5.0	1.4	ug/L			11/08/13 15:42	5
1,1-Dichloroethane	<5.0		5.0	1.0	ug/L			11/08/13 15:42	5
1,2-Dichloroethane	<5.0		5.0	0.75	ug/L			11/08/13 15:42	5
1,1-Dichloroethene	<5.0		5.0	1.2	ug/L			11/08/13 15:42	5
1,2-Dichloropropane	<5.0		5.0	0.85	ug/L			11/08/13 15:42	5
Methylene Chloride	<25		25	1.1	ug/L			11/08/13 15:42	5
1,1,1,2-Tetrachloroethane	<5.0		5.0	0.70	ug/L			11/08/13 15:42	5
1,1,2,2-Tetrachloroethane	<5.0		5.0	0.55	ug/L			11/08/13 15:42	5
Tetrachloroethene	<5.0		5.0	0.95	ug/L			11/08/13 15:42	5
trans-1,2-Dichloroethene	**14**		5.0	1.3	ug/L			11/08/13 15:42	5
trans-1,3-Dichloropropene	<5.0		5.0	0.70	ug/L			11/08/13 15:42	5
1,1,1-Trichloroethane	<5.0		5.0	0.80	ug/L			11/08/13 15:42	5
1,1,2-Trichloroethane	<5.0		5.0	1.0	ug/L			11/08/13 15:42	5
Trichloroethene	**54**		5.0	0.80	ug/L			11/08/13 15:42	5
Trichlorofluoromethane	<5.0		5.0	1.1	ug/L			11/08/13 15:42	5
1,2,3-Trichloropropane	<5.0		5.0	1.2	ug/L			11/08/13 15:42	5
Vinyl chloride	**91**		5.0	1.1	ug/L			11/08/13 15:42	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 119*		*11/08/13 15:42*	*5*
Dibromofluoromethane	*90*		*83 - 123*		*11/08/13 15:42*	*5*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/08/13 15:42*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.0**		1.0	0.35	mg/L			10/30/13 21:59	1

Client Sample ID: OW-305I DUP

Lab Sample ID: 640-45593-10

Date Collected: 10/29/13 11:00

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<5.0		5.0	2.2	ug/L			11/08/13 16:05	5
Bromoform	<5.0		5.0	0.90	ug/L			11/08/13 16:05	5
Bromomethane	<5.0		5.0	2.6	ug/L			11/08/13 16:05	5
Carbon tetrachloride	<5.0		5.0	0.90	ug/L			11/08/13 16:05	5
Chlorobenzene	<5.0		5.0	0.65	ug/L			11/08/13 16:05	5

Client Sample ID: OW-305I DUP

Lab Sample ID: 640-45593-10

Date Collected: 10/29/13 11:00

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	<5.0		5.0	1.7	ug/L			11/08/13 16:05	5
Chloroform	<5.0		5.0	0.60	ug/L			11/08/13 16:05	5
Chloromethane	<5.0		5.0	0.90	ug/L			11/08/13 16:05	5
cis-1,2-Dichloroethylene	**190**		5.0	1.1	ug/L			11/08/13 16:05	5
cis-1,3-Dichloropropene	<5.0		5.0	0.70	ug/L			11/08/13 16:05	5
Dibromochloromethane	<5.0		5.0	0.75	ug/L			11/08/13 16:05	5
Dibromomethane	<5.0		5.0	1.0	ug/L			11/08/13 16:05	5
1,2-Dichlorobenzene	<5.0		5.0	0.70	ug/L			11/08/13 16:05	5
1,3-Dichlorobenzene	<5.0		5.0	0.85	ug/L			11/08/13 16:05	5
1,4-Dichlorobenzene	<5.0		5.0	1.0	ug/L			11/08/13 16:05	5
Dichlorodifluoromethane	<5.0		5.0	1.4	ug/L			11/08/13 16:05	5
1,1-Dichloroethane	<5.0		5.0	1.0	ug/L			11/08/13 16:05	5
1,2-Dichloroethane	<5.0		5.0	0.75	ug/L			11/08/13 16:05	5
1,1-Dichloroethene	<5.0		5.0	1.2	ug/L			11/08/13 16:05	5
1,2-Dichloropropane	<5.0		5.0	0.85	ug/L			11/08/13 16:05	5
Methylene Chloride	<25		25	1.1	ug/L			11/08/13 16:05	5
1,1,1,2-Tetrachloroethane	<5.0		5.0	0.70	ug/L			11/08/13 16:05	5
1,1,2,2-Tetrachloroethane	<5.0		5.0	0.55	ug/L			11/08/13 16:05	5
Tetrachloroethene	<5.0		5.0	0.95	ug/L			11/08/13 16:05	5
trans-1,2-Dichloroethene	**9.8**		5.0	1.3	ug/L			11/08/13 16:05	5
trans-1,3-Dichloropropene	<5.0		5.0	0.70	ug/L			11/08/13 16:05	5
1,1,1-Trichloroethane	<5.0		5.0	0.80	ug/L			11/08/13 16:05	5
1,1,2-Trichloroethane	<5.0		5.0	1.0	ug/L			11/08/13 16:05	5
Trichloroethene	**39**		5.0	0.80	ug/L			11/08/13 16:05	5
Trichlorofluoromethane	<5.0		5.0	1.1	ug/L			11/08/13 16:05	5
1,2,3-Trichloropropane	<5.0		5.0	1.2	ug/L			11/08/13 16:05	5
Vinyl chloride	**63**		5.0	1.1	ug/L			11/08/13 16:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*70 - 119*		*11/08/13 16:05*	*5*
Dibromofluoromethane	*92*		*83 - 123*		*11/08/13 16:05*	*5*
Toluene-d8 (Surr)	*103*		*78 - 126*		*11/08/13 16:05*	*5*

Client Sample ID: OW-404R

Lab Sample ID: 640-45593-11

Date Collected: 10/29/13 14:45

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 20:03	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 20:03	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 20:03	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 20:03	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 20:03	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 20:03	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 20:03	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 20:03	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 20:03	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 20:03	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 20:03	1

Client Sample ID: OW-404R

Date Collected: 10/29/13 14:45
Date Received: 10/30/13 10:00

Lab Sample ID: 640-45593-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 20:03	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 20:03	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 20:03	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 20:03	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 20:03	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 20:03	1
1,1-Dichloroethene	**0.71**	**J**	1.0	0.23	ug/L			11/07/13 20:03	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 20:03	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 20:03	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 20:03	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 20:03	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 20:03	1
trans-1,2-Dichloroethene	**1.8**		1.0	0.26	ug/L			11/07/13 20:03	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 20:03	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 20:03	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 20:03	1
Trichloroethene	**94**		1.0	0.16	ug/L			11/07/13 20:03	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 20:03	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 20:03	1
Vinyl chloride	**1.6**		1.0	0.22	ug/L			11/07/13 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/07/13 20:03*	*1*
Dibromofluoromethane	*98*		*83 - 123*		*11/07/13 20:03*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/07/13 20:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethylene	**120**		5.0	1.1	ug/L			11/08/13 16:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/08/13 16:28*	*5*
Dibromofluoromethane	*88*		*83 - 123*		*11/08/13 16:28*	*5*
Toluene-d8 (Surr)	*102*		*78 - 126*		*11/08/13 16:28*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**54**		1.0	0.18	ug/L			11/01/13 12:51	1
Ethane	<1.0		1.0	0.75	ug/L			11/01/13 12:51	1
Ethene	<1.0		1.0	0.55	ug/L			11/01/13 12:51	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10**		0.50	0.25	mg/L			11/08/13 15:08	1
Sulfate	**27**		0.50	0.25	mg/L			11/08/13 15:08	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	**150**	**J**	200	50	ug/L		10/31/13 14:30	11/01/13 18:36	1

Client Sample ID: OW-404R

Lab Sample ID: 640-45593-11

Date Collected: 10/29/13 14:45

Matrix: Water

Date Received: 10/30/13 10:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	1.3		1.0	0.35	mg/L			10/30/13 22:12	1

Client Sample ID: FIELD BLANK

Lab Sample ID: 640-45593-12

Date Collected: 10/29/13 15:20

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 15:51	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 15:51	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 15:51	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 15:51	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 15:51	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 15:51	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 15:51	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 15:51	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/07/13 15:51	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 15:51	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 15:51	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 15:51	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 15:51	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 15:51	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 15:51	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 15:51	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 15:51	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 15:51	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/07/13 15:51	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 15:51	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 15:51	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 15:51	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 15:51	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 15:51	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/07/13 15:51	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 15:51	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 15:51	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 15:51	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/07/13 15:51	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 15:51	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 15:51	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/07/13 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/07/13 15:51*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/07/13 15:51*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/07/13 15:51*	*1*

Client Sample ID: GZ-505L

Lab Sample ID: 640-45593-13

Date Collected: 10/29/13 15:45

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 20:26	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 20:26	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 20:26	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 20:26	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 20:26	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 20:26	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 20:26	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 20:26	1
cis-1,2-Dichloroethylene	**4.5**		1.0	0.21	ug/L			11/07/13 20:26	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 20:26	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 20:26	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 20:26	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 20:26	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 20:26	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 20:26	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 20:26	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 20:26	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 20:26	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/07/13 20:26	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 20:26	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 20:26	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 20:26	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 20:26	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 20:26	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/07/13 20:26	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 20:26	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 20:26	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 20:26	1
Trichloroethene	**0.76**	**J**	1.0	0.16	ug/L			11/07/13 20:26	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 20:26	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 20:26	1
Vinyl chloride	**0.62**	**J**	1.0	0.22	ug/L			11/07/13 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/07/13 20:26*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/07/13 20:26*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/07/13 20:26*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.6**		1.0	0.35	mg/L			10/30/13 22:27	1

Client Sample ID: WB-1L

Lab Sample ID: 640-45593-14

Date Collected: 10/29/13 16:15

Matrix: Water

Date Received: 10/30/13 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 18:54	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 18:54	1

Client Sample ID: WB-1L

Date Collected: 10/29/13 16:15
Date Received: 10/30/13 10:00

Lab Sample ID: 640-45593-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/07/13 18:54	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 18:54	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 18:54	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 18:54	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 18:54	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 18:54	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 18:54	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 18:54	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 18:54	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 18:54	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 18:54	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 18:54	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 18:54	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 18:54	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 18:54	1
1,1-Dichloroethene	**0.55**	**J**	1.0	0.23	ug/L			11/07/13 18:54	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 18:54	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 18:54	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 18:54	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 18:54	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 18:54	1
trans-1,2-Dichloroethene	**1.5**		1.0	0.26	ug/L			11/07/13 18:54	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 18:54	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 18:54	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 18:54	1
Trichloroethene	**81**		1.0	0.16	ug/L			11/07/13 18:54	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 18:54	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 18:54	1
Vinyl chloride	**0.60**	**J**	1.0	0.22	ug/L			11/07/13 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/07/13 18:54*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/07/13 18:54*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/07/13 18:54*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethylene	**120**		5.0	1.1	ug/L			11/08/13 16:51	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*70 - 119*		*11/08/13 16:51*	*5*
Dibromofluoromethane	*90*		*83 - 123*		*11/08/13 16:51*	*5*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/08/13 16:51*	*5*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.6**		1.0	0.35	mg/L			10/30/13 22:41	1

Client Sample ID: GZ-601L

Lab Sample ID: 640-45619-1

Date Collected: 10/30/13 11:10

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 15:40	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 15:40	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/08/13 15:40	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 15:40	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 15:40	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 15:40	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 15:40	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 15:40	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/08/13 15:40	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 15:40	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 15:40	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 15:40	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 15:40	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 15:40	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 15:40	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 15:40	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 15:40	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 15:40	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/08/13 15:40	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 15:40	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 15:40	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 15:40	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 15:40	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 15:40	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/08/13 15:40	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 15:40	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 15:40	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 15:40	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/08/13 15:40	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 15:40	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 15:40	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/08/13 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/08/13 15:40*	*1*
Dibromofluoromethane	*98*		*83 - 123*		*11/08/13 15:40*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/08/13 15:40*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.0		1.0	0.35	mg/L			10/31/13 18:10	1

Client Sample ID: DEC-204O

Lab Sample ID: 640-45619-2

Date Collected: 10/30/13 10:05

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 22:32	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 22:32	1

Client Sample ID: DEC-204O

Lab Sample ID: 640-45619-2

Date Collected: 10/30/13 10:05

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 22:32	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 22:32	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 22:32	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 22:32	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 22:32	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 22:32	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/09/13 22:32	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 22:32	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 22:32	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 22:32	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 22:32	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 22:32	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 22:32	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 22:32	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 22:32	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 22:32	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 22:32	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 22:32	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 22:32	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 22:32	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 22:32	1
Tetrachloroethene	**1.9**		1.0	0.19	ug/L			11/09/13 22:32	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 22:32	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 22:32	1
1,1,1-Trichloroethane	**0.46**	**J**	1.0	0.16	ug/L			11/09/13 22:32	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 22:32	1
Trichloroethene	**0.46**	**J**	1.0	0.16	ug/L			11/09/13 22:32	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 22:32	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 22:32	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 22:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/09/13 22:32*	*1*
Dibromofluoromethane	*96*		*83 - 123*		*11/09/13 22:32*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/09/13 22:32*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.3**		1.0	0.35	mg/L			10/31/13 18:52	1

Client Sample ID: OW-408

Lab Sample ID: 640-45619-3

Date Collected: 10/30/13 10:40

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 21:47	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 21:47	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 21:47	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 21:47	1

Client Sample ID: OW-408

Lab Sample ID: 640-45619-3

Date Collected: 10/30/13 10:40

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 21:47	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 21:47	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 21:47	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 21:47	1
cis-1,2-Dichloroethylene	**75**		1.0	0.21	ug/L			11/09/13 21:47	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 21:47	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 21:47	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 21:47	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 21:47	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 21:47	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 21:47	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 21:47	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 21:47	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 21:47	1
1,1-Dichloroethene	**1.9**		1.0	0.23	ug/L			11/09/13 21:47	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 21:47	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 21:47	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 21:47	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 21:47	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 21:47	1
trans-1,2-Dichloroethene	**19**		1.0	0.26	ug/L			11/09/13 21:47	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 21:47	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 21:47	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 21:47	1
Trichloroethene	**1.0**		1.0	0.16	ug/L			11/09/13 21:47	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 21:47	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 21:47	1
Vinyl chloride	**3.1**		1.0	0.22	ug/L			11/09/13 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/09/13 21:47*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/09/13 21:47*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/09/13 21:47*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.77**	**J**	1.0	0.35	mg/L			10/31/13 19:46	1

Client Sample ID: GZ-506U

Lab Sample ID: 640-45619-4

Date Collected: 10/30/13 13:10

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 23:18	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 23:18	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 23:18	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 23:18	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 23:18	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 23:18	1

Client Sample ID: GZ-506U

Lab Sample ID: 640-45619-4

Date Collected: 10/30/13 13:10

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 23:18	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 23:18	1
cis-1,2-Dichloroethylene	**0.48**	**J**	1.0	0.21	ug/L			11/09/13 23:18	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 23:18	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 23:18	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 23:18	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 23:18	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 23:18	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 23:18	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 23:18	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 23:18	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 23:18	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 23:18	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 23:18	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 23:18	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 23:18	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 23:18	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 23:18	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 23:18	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 23:18	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 23:18	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 23:18	1
Trichloroethene	**1.8**		1.0	0.16	ug/L			11/09/13 23:18	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 23:18	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 23:18	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 119*		*11/09/13 23:18*	*1*
Dibromofluoromethane	*98*		*83 - 123*		*11/09/13 23:18*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/09/13 23:18*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.82**	**J**	1.0	0.35	mg/L			10/31/13 20:00	1

Client Sample ID: GZ-503U

Lab Sample ID: 640-45619-5

Date Collected: 10/30/13 08:50

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/10/13 16:56	1
Bromoform	<1.0		1.0	0.18	ug/L			11/10/13 16:56	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/10/13 16:56	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/10/13 16:56	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/10/13 16:56	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/10/13 16:56	1
Chloroform	<1.0		1.0	0.12	ug/L			11/10/13 16:56	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/10/13 16:56	1

Client Sample ID: GZ-503U

Lab Sample ID: 640-45619-5

Date Collected: 10/30/13 08:50

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethylene	**16**		1.0	0.21	ug/L			11/10/13 16:56	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 16:56	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/10/13 16:56	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/10/13 16:56	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/10/13 16:56	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/10/13 16:56	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/10/13 16:56	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/10/13 16:56	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 16:56	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/10/13 16:56	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/10/13 16:56	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/10/13 16:56	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/10/13 16:56	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/10/13 16:56	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/10/13 16:56	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/10/13 16:56	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/10/13 16:56	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 16:56	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/10/13 16:56	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 16:56	1
Trichloroethene	**0.23**	**J**	1.0	0.16	ug/L			11/10/13 16:56	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/10/13 16:56	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/10/13 16:56	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/10/13 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/10/13 16:56*	*1*
Dibromofluoromethane	*86*		*83 - 123*		*11/10/13 16:56*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/10/13 16:56*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**5.6**		1.0	0.35	mg/L			10/31/13 20:17	1

Client Sample ID: OW-304U

Lab Sample ID: 640-45619-6

Date Collected: 10/30/13 08:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 16:03	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 16:03	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/08/13 16:03	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 16:03	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 16:03	1
Chloroethane	**0.79**	**J**	1.0	0.33	ug/L			11/08/13 16:03	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 16:03	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 16:03	1
cis-1,2-Dichloroethylene	**1.5**		1.0	0.21	ug/L			11/08/13 16:03	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 16:03	1

Client Sample ID: OW-304U

Lab Sample ID: 640-45619-6

Date Collected: 10/30/13 08:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 16:03	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 16:03	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 16:03	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 16:03	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 16:03	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 16:03	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 16:03	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 16:03	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/08/13 16:03	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 16:03	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 16:03	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 16:03	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 16:03	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 16:03	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/08/13 16:03	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 16:03	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 16:03	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 16:03	1
Trichloroethene	**0.32**	**J**	1.0	0.16	ug/L			11/08/13 16:03	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 16:03	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 16:03	1
Vinyl chloride	**0.32**	**J**	1.0	0.22	ug/L			11/08/13 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/08/13 16:03*	*1*
Dibromofluoromethane	*95*		*83 - 123*		*11/08/13 16:03*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/08/13 16:03*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**3.0**		1.0	0.35	mg/L			10/31/13 20:33	1

Client Sample ID: FIELD BLANK

Lab Sample ID: 640-45619-7

Date Collected: 10/30/13 11:50

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 15:17	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 15:17	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/08/13 15:17	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 15:17	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 15:17	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 15:17	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 15:17	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 15:17	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/08/13 15:17	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 15:17	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 15:17	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 15:17	1

Client Sample ID: FIELD BLANK

Lab Sample ID: 640-45619-7

Date Collected: 10/30/13 11:50

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 15:17	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 15:17	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 15:17	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 15:17	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 15:17	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 15:17	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/08/13 15:17	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 15:17	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 15:17	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 15:17	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 15:17	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 15:17	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/08/13 15:17	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 15:17	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 15:17	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 15:17	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/08/13 15:17	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 15:17	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 15:17	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/08/13 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/08/13 15:17*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/08/13 15:17*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/08/13 15:17*	*1*

Client Sample ID: TRIP BLANK

Lab Sample ID: 640-45619-8

Date Collected: 10/30/13 00:00

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 14:54	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 14:54	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/08/13 14:54	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 14:54	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 14:54	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 14:54	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 14:54	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 14:54	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/08/13 14:54	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 14:54	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 14:54	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 14:54	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 14:54	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 14:54	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 14:54	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 14:54	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 14:54	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 14:54	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 640-45619-8

Date Collected: 10/30/13 00:00

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/08/13 14:54	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 14:54	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 14:54	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 14:54	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 14:54	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 14:54	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/08/13 14:54	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 14:54	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 14:54	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 14:54	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/08/13 14:54	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 14:54	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 14:54	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/08/13 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/08/13 14:54*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/08/13 14:54*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/08/13 14:54*	*1*

Client Sample ID: OW-301

Lab Sample ID: 640-45619-9

Date Collected: 10/30/13 09:05

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 16:26	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 16:26	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/08/13 16:26	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 16:26	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 16:26	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 16:26	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 16:26	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 16:26	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/08/13 16:26	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 16:26	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 16:26	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 16:26	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 16:26	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 16:26	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 16:26	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 16:26	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 16:26	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 16:26	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/08/13 16:26	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 16:26	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 16:26	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 16:26	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 16:26	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 16:26	1

Client Sample ID: OW-301

Lab Sample ID: 640-45619-9

Date Collected: 10/30/13 09:05
Matrix: Water
Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/08/13 16:26	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 16:26	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 16:26	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 16:26	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/08/13 16:26	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 16:26	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 16:26	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/08/13 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 119*		*11/08/13 16:26*	*1*
Dibromofluoromethane	*96*		*83 - 123*		*11/08/13 16:26*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/08/13 16:26*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/05/13 10:54	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 10:54	1
Ethene	<1.0		1.0	0.55	ug/L			11/05/13 10:54	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.7**		0.50	0.25	mg/L			11/08/13 15:21	1
Sulfate	**35**		0.50	0.25	mg/L			11/08/13 15:21	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 12:36	11/05/13 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.2**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.76**	**J**	1.0	0.35	mg/L			10/31/13 20:46	1

Client Sample ID: GZ-601R

Lab Sample ID: 640-45619-10

Date Collected: 10/30/13 10:15
Matrix: Water
Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 16:49	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 16:49	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/08/13 16:49	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 16:49	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 16:49	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 16:49	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 16:49	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 16:49	1
cis-1,2-Dichloroethylene	**44**		1.0	0.21	ug/L			11/08/13 16:49	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 16:49	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 16:49	1

Client Sample ID: GZ-601R

Date Collected: 10/30/13 10:15
Date Received: 10/31/13 09:00

Lab Sample ID: 640-45619-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 16:49	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 16:49	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 16:49	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 16:49	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 16:49	1
1,1-Dichloroethane	**0.82**	**J**	1.0	0.20	ug/L			11/08/13 16:49	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 16:49	1
1,1-Dichloroethene	**0.84**	**J**	1.0	0.23	ug/L			11/08/13 16:49	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 16:49	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 16:49	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 16:49	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 16:49	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 16:49	1
trans-1,2-Dichloroethene	**0.44**	**J**	1.0	0.26	ug/L			11/08/13 16:49	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 16:49	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 16:49	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 16:49	1
Trichloroethene	**0.69**	**J**	1.0	0.16	ug/L			11/08/13 16:49	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 16:49	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 16:49	1
Vinyl chloride	**1.0**		1.0	0.22	ug/L			11/08/13 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/08/13 16:49*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/08/13 16:49*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/08/13 16:49*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**19**		1.0	0.18	ug/L			11/05/13 11:13	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 11:13	1
Ethene	**1.8**		1.0	0.55	ug/L			11/05/13 11:13	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32**		0.50	0.25	mg/L			11/08/13 16:01	1
Sulfate	**56**		1.0	0.50	mg/L			11/08/13 23:08	2

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	**200**		200	50	ug/L		11/04/13 12:36	11/05/13 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.056**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**1.1**		1.0	0.35	mg/L			10/31/13 21:01	1

Client Sample ID: GZ-519U

Date Collected: 10/30/13 12:40
Date Received: 10/31/13 09:00

Lab Sample ID: 640-45619-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 17:12	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 17:12	1
Bromomethane	<1.0	*	1.0	0.51	ug/L			11/08/13 17:12	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 17:12	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 17:12	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 17:12	1
Chloroform	**3.5**		1.0	0.12	ug/L			11/08/13 17:12	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 17:12	1
cis-1,2-Dichloroethylene	**53**		1.0	0.21	ug/L			11/08/13 17:12	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 17:12	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 17:12	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 17:12	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 17:12	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 17:12	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 17:12	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 17:12	1
1,1-Dichloroethane	**0.31**	**J**	1.0	0.20	ug/L			11/08/13 17:12	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 17:12	1
1,1-Dichloroethene	**1.4**		1.0	0.23	ug/L			11/08/13 17:12	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 17:12	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 17:12	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 17:12	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 17:12	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 17:12	1
trans-1,2-Dichloroethene	**1.7**		1.0	0.26	ug/L			11/08/13 17:12	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 17:12	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 17:12	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 17:12	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 17:12	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 17:12	1
Vinyl chloride	**0.49**	**J**	1.0	0.22	ug/L			11/08/13 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 119*		*11/08/13 17:12*	*1*
Dibromofluoromethane	*97*		*83 - 123*		*11/08/13 17:12*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/08/13 17:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**96**		5.0	0.80	ug/L			11/09/13 19:06	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/09/13 19:06*	*5*
Dibromofluoromethane	*98*		*83 - 123*		*11/09/13 19:06*	*5*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/09/13 19:06*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.34**	**J**	1.0	0.18	ug/L			11/05/13 11:23	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 11:23	1

Client Sample ID: GZ-519U

Lab Sample ID: 640-45619-11

Date Collected: 10/30/13 12:40

Matrix: Water

Date Received: 10/31/13 09:00

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethene	<1.0		1.0	0.55	ug/L			11/05/13 11:23	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25**		0.50	0.25	mg/L			11/08/13 17:08	1
Sulfate	**150**		5.0	2.5	mg/L			11/08/13 23:21	10

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 12:36	11/05/13 12:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.13**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.58**	**J**	1.0	0.35	mg/L			10/31/13 21:15	1

Client Sample ID: OW-403L

Lab Sample ID: 640-45619-12

Date Collected: 10/30/13 11:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 20:15	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 20:15	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 20:15	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 20:15	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 20:15	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 20:15	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 20:15	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 20:15	1
cis-1,2-Dichloroethylene	**55**		1.0	0.21	ug/L			11/09/13 20:15	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 20:15	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 20:15	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 20:15	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 20:15	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 20:15	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 20:15	1
Dichlorodifluoromethane	**5.9**		1.0	0.28	ug/L			11/09/13 20:15	1
1,1-Dichloroethane	**0.81**	**J**	1.0	0.20	ug/L			11/09/13 20:15	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 20:15	1
1,1-Dichloroethene	**0.64**	**J**	1.0	0.23	ug/L			11/09/13 20:15	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 20:15	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 20:15	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 20:15	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 20:15	1
Tetrachloroethene	**0.98**	**J**	1.0	0.19	ug/L			11/09/13 20:15	1
trans-1,2-Dichloroethene	**0.88**	**J**	1.0	0.26	ug/L			11/09/13 20:15	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 20:15	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 20:15	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 20:15	1

Client Sample ID: OW-403L

Lab Sample ID: 640-45619-12

Date Collected: 10/30/13 11:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**85**		1.0	0.16	ug/L			11/09/13 20:15	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 20:15	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 20:15	1
Vinyl chloride	**3.6**		1.0	0.22	ug/L			11/09/13 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 119*		*11/09/13 20:15*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/09/13 20:15*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/09/13 20:15*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**27**		1.0	0.18	ug/L			11/05/13 11:33	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 11:33	1
Ethene	<1.0		1.0	0.55	ug/L			11/05/13 11:33	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**49**		1.0	0.50	mg/L			11/08/13 17:21	2
Sulfate	**78**		1.0	0.50	mg/L			11/08/13 17:21	2

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 12:36	11/05/13 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.45**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.46**	**J**	1.0	0.35	mg/L			10/31/13 21:31	1

Client Sample ID: OW-403L DUP

Lab Sample ID: 640-45619-13

Date Collected: 10/30/13 11:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 21:01	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 21:01	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 21:01	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 21:01	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 21:01	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 21:01	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 21:01	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 21:01	1
cis-1,2-Dichloroethylene	**58**		1.0	0.21	ug/L			11/09/13 21:01	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 21:01	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 21:01	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 21:01	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 21:01	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 21:01	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 21:01	1

Client Sample ID: OW-403L DUP

Lab Sample ID: 640-45619-13

Date Collected: 10/30/13 11:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**5.9**		1.0	0.28	ug/L			11/09/13 21:01	1
1,1-Dichloroethane	**0.87**	**J**	1.0	0.20	ug/L			11/09/13 21:01	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 21:01	1
1,1-Dichloroethene	**0.73**	**J**	1.0	0.23	ug/L			11/09/13 21:01	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 21:01	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 21:01	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 21:01	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 21:01	1
Tetrachloroethene	**1.1**		1.0	0.19	ug/L			11/09/13 21:01	1
trans-1,2-Dichloroethene	**0.84**	**J**	1.0	0.26	ug/L			11/09/13 21:01	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 21:01	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 21:01	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 21:01	1
Trichloroethene	**89**		1.0	0.16	ug/L			11/09/13 21:01	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 21:01	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 21:01	1
Vinyl chloride	**3.6**		1.0	0.22	ug/L			11/09/13 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/09/13 21:01*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/09/13 21:01*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/09/13 21:01*	*1*

Client Sample ID: GZ-505R

Lab Sample ID: 640-45619-14

Date Collected: 10/30/13 12:05

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/10/13 00:04	1
Bromoform	<1.0		1.0	0.18	ug/L			11/10/13 00:04	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/10/13 00:04	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/10/13 00:04	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/10/13 00:04	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/10/13 00:04	1
Chloroform	<1.0		1.0	0.12	ug/L			11/10/13 00:04	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/10/13 00:04	1
cis-1,2-Dichloroethylene	**87**		1.0	0.21	ug/L			11/10/13 00:04	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 00:04	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/10/13 00:04	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/10/13 00:04	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/10/13 00:04	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/10/13 00:04	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/10/13 00:04	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/10/13 00:04	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 00:04	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/10/13 00:04	1
1,1-Dichloroethene	**0.75**	**J**	1.0	0.23	ug/L			11/10/13 00:04	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/10/13 00:04	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/10/13 00:04	1

Client Sample ID: GZ-505R

Lab Sample ID: 640-45619-14

Date Collected: 10/30/13 12:05

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/10/13 00:04	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/10/13 00:04	1
Tetrachloroethene	**0.58**	**J**	1.0	0.19	ug/L			11/10/13 00:04	1
trans-1,2-Dichloroethene	**0.80**	**J**	1.0	0.26	ug/L			11/10/13 00:04	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 00:04	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/10/13 00:04	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 00:04	1
Trichloroethene	**59**		1.0	0.16	ug/L			11/10/13 00:04	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/10/13 00:04	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/10/13 00:04	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/10/13 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 119*		*11/10/13 00:04*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/10/13 00:04*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/10/13 00:04*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**240**		1.0	0.18	ug/L			11/05/13 11:45	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 11:45	1
Ethene	<1.0		1.0	0.55	ug/L			11/05/13 11:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16**		0.50	0.25	mg/L			11/09/13 05:35	1
Sulfate	**38**		0.50	0.25	mg/L			11/09/13 05:35	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 12:36	11/05/13 12:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.94**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.76**	**J**	1.0	0.35	mg/L			10/31/13 21:44	1

Client Sample ID: GZ-504L

Lab Sample ID: 640-45619-15

Date Collected: 10/30/13 13:35

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 18:39	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 18:39	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 18:39	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 18:39	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 18:39	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 18:39	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 18:39	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 18:39	1

Client Sample ID: GZ-504L

Lab Sample ID: 640-45619-15

Date Collected: 10/30/13 13:35

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethylene	**32**		1.0	0.21	ug/L			11/09/13 18:39	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 18:39	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 18:39	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 18:39	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 18:39	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 18:39	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 18:39	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 18:39	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 18:39	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 18:39	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 18:39	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 18:39	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 18:39	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 18:39	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 18:39	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 18:39	1
trans-1,2-Dichloroethene	**0.30**	**J**	1.0	0.26	ug/L			11/09/13 18:39	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 18:39	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 18:39	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 18:39	1
Trichloroethene	**5.3**		1.0	0.16	ug/L			11/09/13 18:39	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 18:39	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 18:39	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 119*		*11/09/13 18:39*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/09/13 18:39*	*1*
Toluene-d8 (Surr)	*102*		*78 - 126*		*11/09/13 18:39*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.95**	**J**	1.0	0.35	mg/L			10/31/13 21:59	1

Client Sample ID: OW-402L

Lab Sample ID: 640-45619-16

Date Collected: 10/30/13 14:00

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 19:02	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 19:02	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 19:02	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 19:02	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 19:02	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 19:02	1
Chloroform	**0.28**	**J**	1.0	0.12	ug/L			11/09/13 19:02	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 19:02	1
cis-1,2-Dichloroethylene	**77**		1.0	0.21	ug/L			11/09/13 19:02	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 19:02	1

Client Sample ID: OW-402L

Lab Sample ID: 640-45619-16

Date Collected: 10/30/13 14:00

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 19:02	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 19:02	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 19:02	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 19:02	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 19:02	1
Dichlorodifluoromethane	**1.2**		1.0	0.28	ug/L			11/09/13 19:02	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 19:02	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 19:02	1
1,1-Dichloroethene	**0.83**	**J**	1.0	0.23	ug/L			11/09/13 19:02	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 19:02	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 19:02	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 19:02	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 19:02	1
Tetrachloroethene	**10**		1.0	0.19	ug/L			11/09/13 19:02	1
trans-1,2-Dichloroethene	**1.3**		1.0	0.26	ug/L			11/09/13 19:02	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 19:02	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 19:02	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 19:02	1
Trichloroethene	**33**		1.0	0.16	ug/L			11/09/13 19:02	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 19:02	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 19:02	1
Vinyl chloride	**0.81**	**J**	1.0	0.22	ug/L			11/09/13 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/09/13 19:02*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/09/13 19:02*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/09/13 19:02*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.42**	**J**	1.0	0.35	mg/L			10/31/13 22:41	1

Client Sample ID: OW-402R

Lab Sample ID: 640-45619-17

Date Collected: 10/30/13 14:35

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 19:25	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 19:25	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 19:25	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 19:25	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 19:25	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 19:25	1
Chloroform	**0.21**	**J**	1.0	0.12	ug/L			11/09/13 19:25	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 19:25	1
cis-1,2-Dichloroethylene	**54**		1.0	0.21	ug/L			11/09/13 19:25	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 19:25	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 19:25	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 19:25	1

Client Sample ID: OW-402R

Date Collected: 10/30/13 14:35
Date Received: 10/31/13 09:00

Lab Sample ID: 640-45619-17

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 19:25	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 19:25	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 19:25	1
Dichlorodifluoromethane	**0.85**	**J**	1.0	0.28	ug/L			11/09/13 19:25	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 19:25	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 19:25	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 19:25	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 19:25	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 19:25	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 19:25	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 19:25	1
Tetrachloroethene	**6.3**		1.0	0.19	ug/L			11/09/13 19:25	1
trans-1,2-Dichloroethene	**0.82**	**J**	1.0	0.26	ug/L			11/09/13 19:25	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 19:25	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 19:25	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 19:25	1
Trichloroethene	**23**		1.0	0.16	ug/L			11/09/13 19:25	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 19:25	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 19:25	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 119*		*11/09/13 19:25*	*1*
Dibromofluoromethane	*101*		*83 - 123*		*11/09/13 19:25*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/09/13 19:25*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.94**	**J**	1.0	0.18	ug/L			11/05/13 12:01	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 12:01	1
Ethene	<1.0		1.0	0.55	ug/L			11/05/13 12:01	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36**		0.50	0.25	mg/L			11/08/13 17:35	1
Sulfate	**70**		1.0	0.50	mg/L			11/08/13 23:35	2

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 12:36	11/05/13 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.57**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.48**	**J**	1.0	0.35	mg/L			10/31/13 22:56	1

Client Sample Results

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: GZ-504R

Date Collected: 10/30/13 14:35
Date Received: 10/31/13 09:00

Lab Sample ID: 640-45619-18

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/10/13 00:50	1
Bromoform	<1.0		1.0	0.18	ug/L			11/10/13 00:50	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/10/13 00:50	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/10/13 00:50	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/10/13 00:50	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/10/13 00:50	1
Chloroform	<1.0		1.0	0.12	ug/L			11/10/13 00:50	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/10/13 00:50	1
cis-1,2-Dichloroethylene	**3.5**		1.0	0.21	ug/L			11/10/13 00:50	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 00:50	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/10/13 00:50	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/10/13 00:50	1
1,2-Dichlorobenzene	**0.21**	**J**	1.0	0.14	ug/L			11/10/13 00:50	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/10/13 00:50	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/10/13 00:50	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/10/13 00:50	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 00:50	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/10/13 00:50	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/10/13 00:50	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/10/13 00:50	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/10/13 00:50	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/10/13 00:50	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/10/13 00:50	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/10/13 00:50	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/10/13 00:50	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 00:50	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/10/13 00:50	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 00:50	1
Trichloroethene	**6.5**		1.0	0.16	ug/L			11/10/13 00:50	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/10/13 00:50	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/10/13 00:50	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/10/13 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/10/13 00:50*	*1*
Dibromofluoromethane	*99*		*83 - 123*		*11/10/13 00:50*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/10/13 00:50*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**1.0**		1.0	0.18	ug/L			11/05/13 12:24	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 12:24	1
Ethene	<1.0		1.0	0.55	ug/L			11/05/13 12:24	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23**		0.50	0.25	mg/L			11/08/13 17:48	1
Sulfate	**82**		1.0	0.50	mg/L			11/08/13 23:48	2

Client Sample ID: GZ-504R

Lab Sample ID: 640-45619-18

Date Collected: 10/30/13 14:35

Matrix: Water

Date Received: 10/31/13 09:00

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 12:36	11/05/13 12:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.010		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.81**	**J**	1.0	0.35	mg/L			10/31/13 23:10	1

Client Sample ID: OW-101

Lab Sample ID: 640-45619-19

Date Collected: 10/30/13 15:05

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<20		20	8.8	ug/L			11/08/13 19:06	20
Bromoform	<20		20	3.6	ug/L			11/08/13 19:06	20
Bromomethane	<20	*	20	10	ug/L			11/08/13 19:06	20
Carbon tetrachloride	<20		20	3.6	ug/L			11/08/13 19:06	20
Chlorobenzene	<20		20	2.6	ug/L			11/08/13 19:06	20
Chloroethane	<20		20	6.6	ug/L			11/08/13 19:06	20
Chloroform	<20		20	2.4	ug/L			11/08/13 19:06	20
Chloromethane	<20		20	3.6	ug/L			11/08/13 19:06	20
cis-1,2-Dichloroethylene	**1300**		20	4.2	ug/L			11/08/13 19:06	20
cis-1,3-Dichloropropene	<20		20	2.8	ug/L			11/08/13 19:06	20
Dibromochloromethane	<20		20	3.0	ug/L			11/08/13 19:06	20
Dibromomethane	<20		20	4.0	ug/L			11/08/13 19:06	20
1,2-Dichlorobenzene	<20		20	2.8	ug/L			11/08/13 19:06	20
1,3-Dichlorobenzene	<20		20	3.4	ug/L			11/08/13 19:06	20
1,4-Dichlorobenzene	<20		20	4.0	ug/L			11/08/13 19:06	20
Dichlorodifluoromethane	<20		20	5.6	ug/L			11/08/13 19:06	20
1,1-Dichloroethane	<20		20	4.0	ug/L			11/08/13 19:06	20
1,2-Dichloroethane	<20		20	3.0	ug/L			11/08/13 19:06	20
1,1-Dichloroethene	**17**	**J**	20	4.6	ug/L			11/08/13 19:06	20
1,2-Dichloropropane	<20		20	3.4	ug/L			11/08/13 19:06	20
Methylene Chloride	<100		100	4.2	ug/L			11/08/13 19:06	20
1,1,1,2-Tetrachloroethane	<20		20	2.8	ug/L			11/08/13 19:06	20
1,1,2,2-Tetrachloroethane	<20		20	2.2	ug/L			11/08/13 19:06	20
Tetrachloroethene	<20		20	3.8	ug/L			11/08/13 19:06	20
trans-1,2-Dichloroethene	**230**		20	5.2	ug/L			11/08/13 19:06	20
trans-1,3-Dichloropropene	<20		20	2.8	ug/L			11/08/13 19:06	20
1,1,1-Trichloroethane	<20		20	3.2	ug/L			11/08/13 19:06	20
1,1,2-Trichloroethane	<20		20	4.0	ug/L			11/08/13 19:06	20
Trichloroethene	**980**		20	3.2	ug/L			11/08/13 19:06	20
Trichlorofluoromethane	<20		20	4.2	ug/L			11/08/13 19:06	20
1,2,3-Trichloropropane	<20		20	4.6	ug/L			11/08/13 19:06	20
Vinyl chloride	**11**	**J**	20	4.4	ug/L			11/08/13 19:06	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/08/13 19:06*	*20*
Dibromofluoromethane	*97*		*83 - 123*		*11/08/13 19:06*	*20*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/08/13 19:06*	*20*

Client Sample ID: OW-101

Lab Sample ID: 640-45619-19

Date Collected: 10/30/13 15:05

Matrix: Water

Date Received: 10/31/13 09:00

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**92**		1.0	0.18	ug/L			11/04/13 13:37	1
Ethane	<1.0		1.0	0.75	ug/L			11/04/13 13:37	1
Ethene	<1.0		1.0	0.55	ug/L			11/04/13 13:37	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24**		0.50	0.25	mg/L			11/08/13 18:01	1
Sulfate	**22**		0.50	0.25	mg/L			11/08/13 18:01	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	**120**	**J**	200	50	ug/L		11/04/13 12:36	11/05/13 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.026**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**1.5**		1.0	0.35	mg/L			10/31/13 23:25	1

Client Sample ID: OW-101L

Lab Sample ID: 640-45619-20

Date Collected: 10/30/13 15:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 19:29	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 19:29	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 19:29	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 19:29	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 19:29	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 19:29	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 19:29	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 19:29	1
cis-1,2-Dichloroethylene	**81**		1.0	0.21	ug/L			11/09/13 19:29	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 19:29	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 19:29	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 19:29	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 19:29	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 19:29	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 19:29	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 19:29	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 19:29	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 19:29	1
1,1-Dichloroethene	**0.58**	**J**	1.0	0.23	ug/L			11/09/13 19:29	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 19:29	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 19:29	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 19:29	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 19:29	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 19:29	1
trans-1,2-Dichloroethene	**0.98**	**J**	1.0	0.26	ug/L			11/09/13 19:29	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 19:29	1

Client Sample ID: OW-101L

Lab Sample ID: 640-45619-20

Date Collected: 10/30/13 15:30

Matrix: Water

Date Received: 10/31/13 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 19:29	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 19:29	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/09/13 19:29	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 19:29	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 19:29	1
Vinyl chloride	**2.4**		1.0	0.22	ug/L			11/09/13 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 119*		*11/09/13 19:29*	*1*
Dibromofluoromethane	*96*		*83 - 123*		*11/09/13 19:29*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/09/13 19:29*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.50**	**J**	1.0	0.18	ug/L			11/04/13 13:52	1
Ethane	<1.0		1.0	0.75	ug/L			11/04/13 13:52	1
Ethene	<1.0		1.0	0.55	ug/L			11/04/13 13:52	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35**		0.50	0.25	mg/L			11/09/13 05:48	1
Sulfate	**52**		1.0	0.50	mg/L			11/09/13 16:58	2

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	**1700**		200	50	ug/L		11/04/13 12:36	11/05/13 13:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.010		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.62**	**J**	1.0	0.35	mg/L			10/31/13 23:40	1

Client Sample ID: Field Blank

Lab Sample ID: 640-45642-1

Date Collected: 10/31/13 10:35

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 11:32	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 11:32	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 11:32	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 11:32	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 11:32	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 11:32	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 11:32	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 11:32	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/09/13 11:32	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 11:32	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 11:32	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 11:32	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 11:32	1

Client Sample ID: Field Blank

Lab Sample ID: 640-45642-1

Date Collected: 10/31/13 10:35

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 11:32	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 11:32	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 11:32	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 11:32	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 11:32	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 11:32	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 11:32	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 11:32	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 11:32	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 11:32	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 11:32	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 11:32	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 11:32	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 11:32	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 11:32	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/09/13 11:32	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 11:32	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 11:32	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 11:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 119*		*11/09/13 11:32*	*1*
Dibromofluoromethane	*96*		*83 - 123*		*11/09/13 11:32*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/09/13 11:32*	*1*

Client Sample ID: Trip Blank

Lab Sample ID: 640-45642-2

Date Collected: 10/31/13 00:00

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 11:53	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 11:53	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 11:53	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 11:53	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 11:53	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 11:53	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 11:53	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 11:53	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/09/13 11:53	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 11:53	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 11:53	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 11:53	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 11:53	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 11:53	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 11:53	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 11:53	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 11:53	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 11:53	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 11:53	1

Client Sample ID: Trip Blank

Lab Sample ID: 640-45642-2

Date Collected: 10/31/13 00:00

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 11:53	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 11:53	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 11:53	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 11:53	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 11:53	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 11:53	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 11:53	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 11:53	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 11:53	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/09/13 11:53	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 11:53	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 11:53	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/09/13 11:53*	*1*
Dibromofluoromethane	*93*		*83 - 123*		*11/09/13 11:53*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/09/13 11:53*	*1*

Client Sample ID: OW-307

Lab Sample ID: 640-45642-3

Date Collected: 10/31/13 10:10

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<10		10	4.4	ug/L			11/09/13 12:58	10
Bromoform	<10		10	1.8	ug/L			11/09/13 12:58	10
Bromomethane	<10		10	5.1	ug/L			11/09/13 12:58	10
Carbon tetrachloride	<10		10	1.8	ug/L			11/09/13 12:58	10
Chlorobenzene	<10		10	1.3	ug/L			11/09/13 12:58	10
Chloroethane	<10		10	3.3	ug/L			11/09/13 12:58	10
Chloroform	<10		10	1.2	ug/L			11/09/13 12:58	10
Chloromethane	<10		10	1.8	ug/L			11/09/13 12:58	10
cis-1,2-Dichloroethylene	**540**		10	2.1	ug/L			11/09/13 12:58	10
cis-1,3-Dichloropropene	<10		10	1.4	ug/L			11/09/13 12:58	10
Dibromochloromethane	<10		10	1.5	ug/L			11/09/13 12:58	10
Dibromomethane	<10		10	2.0	ug/L			11/09/13 12:58	10
1,2-Dichlorobenzene	<10		10	1.4	ug/L			11/09/13 12:58	10
1,3-Dichlorobenzene	<10		10	1.7	ug/L			11/09/13 12:58	10
1,4-Dichlorobenzene	<10		10	2.0	ug/L			11/09/13 12:58	10
Dichlorodifluoromethane	<10		10	2.8	ug/L			11/09/13 12:58	10
1,1-Dichloroethane	<10		10	2.0	ug/L			11/09/13 12:58	10
1,2-Dichloroethane	<10		10	1.5	ug/L			11/09/13 12:58	10
1,1-Dichloroethene	<10		10	2.3	ug/L			11/09/13 12:58	10
1,2-Dichloropropane	<10		10	1.7	ug/L			11/09/13 12:58	10
Methylene Chloride	<50		50	2.1	ug/L			11/09/13 12:58	10
1,1,1,2-Tetrachloroethane	<10		10	1.4	ug/L			11/09/13 12:58	10
1,1,2,2-Tetrachloroethane	<10		10	1.1	ug/L			11/09/13 12:58	10
Tetrachloroethene	<10		10	1.9	ug/L			11/09/13 12:58	10
trans-1,2-Dichloroethene	**6.6**	**J**	10	2.6	ug/L			11/09/13 12:58	10

Client Sample ID: OW-307

Lab Sample ID: 640-45642-3

Date Collected: 10/31/13 10:10

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<10		10	1.4	ug/L			11/09/13 12:58	10
1,1,1-Trichloroethane	<10		10	1.6	ug/L			11/09/13 12:58	10
1,1,2-Trichloroethane	<10		10	2.0	ug/L			11/09/13 12:58	10
Trichloroethene	**480**		10	1.6	ug/L			11/09/13 12:58	10
Trichlorofluoromethane	<10		10	2.1	ug/L			11/09/13 12:58	10
1,2,3-Trichloropropane	<10		10	2.3	ug/L			11/09/13 12:58	10
Vinyl chloride	**12**		10	2.2	ug/L			11/09/13 12:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 119*		*11/09/13 12:58*	*10*
Dibromofluoromethane	*98*		*83 - 123*		*11/09/13 12:58*	*10*
Toluene-d8 (Surr)	*98*		*78 - 126*		*11/09/13 12:58*	*10*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**370**		1.0	0.18	ug/L			11/04/13 14:17	1
Ethane	<1.0		1.0	0.75	ug/L			11/04/13 14:17	1
Ethene	<1.0		1.0	0.55	ug/L			11/04/13 14:17	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.7**		0.50	0.25	mg/L			11/08/13 18:15	1
Sulfate	**15**		0.50	0.25	mg/L			11/08/13 18:15	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	**260**		200	50	ug/L		11/04/13 10:46	11/05/13 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.010		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.86**	**J**	1.0	0.35	mg/L			11/01/13 23:08	1

Client Sample ID: OW-402U

Lab Sample ID: 640-45642-4

Date Collected: 10/31/13 09:00

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 12:15	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 12:15	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 12:15	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 12:15	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 12:15	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 12:15	1
Chloroform	**0.16**	**J**	1.0	0.12	ug/L			11/09/13 12:15	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 12:15	1
cis-1,2-Dichloroethylene	**31**		1.0	0.21	ug/L			11/09/13 12:15	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 12:15	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 12:15	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 12:15	1

Client Sample ID: OW-402U

Lab Sample ID: 640-45642-4

Date Collected: 10/31/13 09:00

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 12:15	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 12:15	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 12:15	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 12:15	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 12:15	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 12:15	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 12:15	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 12:15	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 12:15	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 12:15	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 12:15	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 12:15	1
trans-1,2-Dichloroethene	**0.89**	**J**	1.0	0.26	ug/L			11/09/13 12:15	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 12:15	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 12:15	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 12:15	1
Trichloroethene	**14**		1.0	0.16	ug/L			11/09/13 12:15	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 12:15	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 12:15	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 119*		*11/09/13 12:15*	*1*
Dibromofluoromethane	*96*		*83 - 123*		*11/09/13 12:15*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/09/13 12:15*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/04/13 14:43	1
Ethane	<1.0		1.0	0.75	ug/L			11/04/13 14:43	1
Ethene	<1.0		1.0	0.55	ug/L			11/04/13 14:43	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16**		0.50	0.25	mg/L			11/08/13 18:28	1
Sulfate	**54**		1.0	0.50	mg/L			11/09/13 16:05	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.6**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**1.4**		1.0	0.35	mg/L			11/01/13 23:22	1

Client Sample ID: GZ-506R

Lab Sample ID: 640-45642-5

Date Collected: 10/31/13 09:15

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 13:20	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 13:20	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 13:20	1

Client Sample ID: GZ-506R

Date Collected: 10/31/13 09:15
Date Received: 11/01/13 09:50

Lab Sample ID: 640-45642-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 13:20	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 13:20	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 13:20	1
Chloroform	**0.31**	**J**	1.0	0.12	ug/L			11/09/13 13:20	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 13:20	1
cis-1,2-Dichloroethylene	**56**		1.0	0.21	ug/L			11/09/13 13:20	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 13:20	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 13:20	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 13:20	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 13:20	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 13:20	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 13:20	1
Dichlorodifluoromethane	**0.96**	**J**	1.0	0.28	ug/L			11/09/13 13:20	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 13:20	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 13:20	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 13:20	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 13:20	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 13:20	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 13:20	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 13:20	1
Tetrachloroethene	**0.68**	**J**	1.0	0.19	ug/L			11/09/13 13:20	1
trans-1,2-Dichloroethene	**0.88**	**J**	1.0	0.26	ug/L			11/09/13 13:20	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 13:20	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 13:20	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 13:20	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 13:20	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 13:20	1
Vinyl chloride	**0.24**	**J**	1.0	0.22	ug/L			11/09/13 13:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*70 - 119*		*11/09/13 13:20*	*1*
Dibromofluoromethane	*96*		*83 - 123*		*11/09/13 13:20*	*1*
Toluene-d8 (Surr)	*97*		*78 - 126*		*11/09/13 13:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**94**		5.0	0.80	ug/L			11/11/13 14:32	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/11/13 14:32*	*5*
Dibromofluoromethane	*97*		*83 - 123*		*11/11/13 14:32*	*5*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/11/13 14:32*	*5*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/04/13 15:08	1
Ethane	<1.0		1.0	0.75	ug/L			11/04/13 15:08	1
Ethene	<1.0		1.0	0.55	ug/L			11/04/13 15:08	1

Client Sample ID: GZ-506R

Lab Sample ID: 640-45642-5

Date Collected: 10/31/13 09:15

Matrix: Water

Date Received: 11/01/13 09:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33**		0.50	0.25	mg/L			11/08/13 18:41	1
Sulfate	**53**		1.0	0.50	mg/L			11/09/13 16:18	2

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 10:46	11/05/13 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.32**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**0.56**	**J**	1.0	0.35	mg/L			11/01/13 23:37	1

Client Sample ID: OW-102

Lab Sample ID: 640-45642-6

Date Collected: 10/31/13 08:25

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 12:37	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 12:37	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 12:37	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 12:37	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 12:37	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 12:37	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 12:37	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 12:37	1
cis-1,2-Dichloroethylene	**0.43**	**J**	1.0	0.21	ug/L			11/09/13 12:37	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 12:37	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 12:37	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 12:37	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 12:37	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 12:37	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 12:37	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 12:37	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 12:37	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 12:37	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 12:37	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 12:37	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 12:37	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 12:37	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 12:37	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 12:37	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 12:37	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 12:37	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 12:37	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 12:37	1
Trichloroethene	**1.0**		1.0	0.16	ug/L			11/09/13 12:37	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 12:37	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 12:37	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 12:37	1

Client Sample ID: OW-102

Lab Sample ID: 640-45642-6

Date Collected: 10/31/13 08:25

Matrix: Water

Date Received: 11/01/13 09:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 119		11/09/13 12:37	1
Dibromofluoromethane	97		83 - 123		11/09/13 12:37	1
Toluene-d8 (Surr)	100		78 - 126		11/09/13 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.49**	**J**	1.0	0.35	mg/L			11/01/13 23:49	1

Client Sample ID: OW-304R

Lab Sample ID: 640-45642-7

Date Collected: 10/31/13 10:00

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 14:03	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 14:03	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 14:03	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 14:03	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 14:03	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 14:03	1
Chloroform	**0.20**	**J**	1.0	0.12	ug/L			11/09/13 14:03	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 14:03	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 14:03	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 14:03	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 14:03	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 14:03	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 14:03	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 14:03	1
Dichlorodifluoromethane	**1.1**		1.0	0.28	ug/L			11/09/13 14:03	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 14:03	1
1,2-Dichloroethane	**2.1**		1.0	0.15	ug/L			11/09/13 14:03	1
1,1-Dichloroethene	**1.3**		1.0	0.23	ug/L			11/09/13 14:03	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 14:03	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 14:03	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 14:03	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 14:03	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 14:03	1
trans-1,2-Dichloroethene	**1.8**		1.0	0.26	ug/L			11/09/13 14:03	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 14:03	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 14:03	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 14:03	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 14:03	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 14:03	1
Vinyl chloride	**40**		1.0	0.22	ug/L			11/09/13 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 119		11/09/13 14:03	1
Dibromofluoromethane	97		83 - 123		11/09/13 14:03	1
Toluene-d8 (Surr)	101		78 - 126		11/09/13 14:03	1

Client Sample ID: OW-304R

Lab Sample ID: 640-45642-7

Date Collected: 10/31/13 10:00

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethylene	**340**		20	4.2	ug/L			11/11/13 14:55	20
Trichloroethene	**1200**		20	3.2	ug/L			11/11/13 14:55	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 119*		*11/11/13 14:55*	*20*
Dibromofluoromethane	*95*		*83 - 123*		*11/11/13 14:55*	*20*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/11/13 14:55*	*20*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.74**	**J**	1.0	0.35	mg/L			11/02/13 00:03	1

Client Sample ID: OW-304L

Lab Sample ID: 640-45642-8

Date Collected: 10/31/13 10:50

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 14:47	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 14:47	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 14:47	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 14:47	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 14:47	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 14:47	1
Chloroform	**0.17**	**J**	1.0	0.12	ug/L			11/09/13 14:47	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 14:47	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 14:47	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 14:47	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 14:47	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 14:47	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 14:47	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 14:47	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 14:47	1
1,1-Dichloroethane	**5.8**		1.0	0.20	ug/L			11/09/13 14:47	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 14:47	1
1,1-Dichloroethene	**5.8**		1.0	0.23	ug/L			11/09/13 14:47	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 14:47	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 14:47	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 14:47	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 14:47	1
Tetrachloroethene	**1.3**		1.0	0.19	ug/L			11/09/13 14:47	1
trans-1,2-Dichloroethene	**1.8**		1.0	0.26	ug/L			11/09/13 14:47	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 14:47	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 14:47	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 14:47	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 14:47	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 14:47	1
Vinyl chloride	**15**		1.0	0.22	ug/L			11/09/13 14:47	1

Client Sample ID: OW-304L

Lab Sample ID: 640-45642-8

Date Collected: 10/31/13 10:50

Matrix: Water

Date Received: 11/01/13 09:50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 119*		*11/09/13 14:47*	*1*
Dibromofluoromethane	*98*		*83 - 123*		*11/09/13 14:47*	*1*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/09/13 14:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethylene	**550**		20	4.2	ug/L			11/11/13 15:18	20
Trichloroethene	**1200**		20	3.2	ug/L			11/11/13 15:18	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 119*		*11/11/13 15:18*	*20*
Dibromofluoromethane	*98*		*83 - 123*		*11/11/13 15:18*	*20*
Toluene-d8 (Surr)	*99*		*78 - 126*		*11/11/13 15:18*	*20*

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**4.5**		1.0	0.18	ug/L			11/04/13 15:29	1
Ethane	<1.0		1.0	0.75	ug/L			11/04/13 15:29	1
Ethene	<1.0		1.0	0.55	ug/L			11/04/13 15:29	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		1.0	0.50	mg/L			11/08/13 19:48	2
Sulfate	**81**		1.0	0.50	mg/L			11/08/13 19:48	2

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	**95**	**J**	200	50	ug/L		11/04/13 10:46	11/05/13 11:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.5**		0.010	0.0054	mg/L			11/08/13 10:40	1
Total Organic Carbon	**2.5**		1.0	0.35	mg/L			11/02/13 00:20	1

Client Sample ID: Equipment Blank

Lab Sample ID: 640-45642-9

Date Collected: 10/31/13 11:30

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 08:11	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 08:11	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 08:11	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 08:11	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 08:11	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 08:11	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 08:11	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 08:11	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/09/13 08:11	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 08:11	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 08:11	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 08:11	1

Client Sample ID: Equipment Blank

Lab Sample ID: 640-45642-9

Date Collected: 10/31/13 11:30

Matrix: Water

Date Received: 11/01/13 09:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 08:11	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 08:11	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 08:11	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 08:11	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 08:11	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 08:11	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 08:11	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 08:11	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 08:11	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 08:11	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 08:11	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 08:11	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 08:11	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 08:11	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 08:11	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 08:11	1
Trichloroethene	**0.30**	**J**	1.0	0.16	ug/L			11/09/13 08:11	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 08:11	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 08:11	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 08:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/09/13 08:11*	*1*
Dibromofluoromethane	*94*		*83 - 123*		*11/09/13 08:11*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/09/13 08:11*	*1*

Surrogate Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

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

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

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB	DBFM	TOL					
Lab Sample ID	Client Sample ID	(70-119)	(83-123)	(78-126)					
640-45593-1	Trip Blank-1 10/29/13	100	104	100					
640-45593-2	GZ-503L	102	100	100					
640-45593-3	WB-2L	99	99	101					
640-45593-4	WB-3L	100	102	102					
640-45593-5	GZ-502L	100	101	101					
640-45593-6	GZ-515U	99	101	100					
640-45593-7	WB-4L	101	98	100					
640-45593-7 MS	WB-4L	107	102	99					
640-45593-7 MSD	WB-4L	102	103	97					
640-45593-8	GZ-501L	99	101	100					
640-45593-9	OW-305I	103	90	100					
640-45593-10	OW-305I DUP	103	92	103					
640-45593-11	OW-404R	100	98	101					
640-45593-11 - DL	OW-404R	101	88	102					
640-45593-12	FIELD BLANK	99	99	100					
640-45593-13	GZ-505L	99	100	101					
640-45593-14	WB-1L	100	100	101					
640-45593-14 - DL	WB-1L	104	90	101					
640-45619-1	GZ-601L	99	98	99					
640-45619-2	DEC-204O	99	96	100					
640-45619-3	OW-408	100	99	101					
640-45619-4	GZ-506U	97	98	100					
640-45619-5	GZ-503U	101	86	101					
640-45619-6	OW-304U	100	95	101					
640-45619-7	FIELD BLANK	101	100	100					
640-45619-8	TRIP BLANK	100	100	99					
640-45619-9	OW-301	97	96	101					
640-45619-10	GZ-601R	101	99	100					
640-45619-11 - DL	GZ-519U	100	98	100					
640-45619-11	GZ-519U	102	97	101					
640-45619-12	OW-403L	98	99	101					
640-45619-13	OW-403L DUP	101	99	101					
640-45619-14	GZ-505R	96	100	100					
640-45619-15	GZ-504L	98	100	102					
640-45619-16	OW-402L	100	99	100					
640-45619-17	OW-402R	100	101	101					
640-45619-18	GZ-504R	101	99	99					
640-45619-19	OW-101	99	97	101					
640-45619-19 MS	OW-101	99	101	100					
640-45619-19 MSD	OW-101	100	101	101					
640-45619-20	OW-101L	97	96	99					
640-45619-B-10 MS	640-45619-B-10 MS	104	88	107					
640-45619-B-10 MSD	640-45619-B-10 MSD	105	89	103					
640-45642-1	Field Blank	96	96	99					
640-45642-2	Trip Blank	99	93	99					
640-45642-3	OW-307	98	98	98					
640-45642-4	OW-402U	97	96	99					
640-45642-5	GZ-506R	96	96	97					
640-45642-5 - DL	GZ-506R	99	97	100					

Surrogate Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-119)	(83-123)	(78-126)
640-45642-6	OW-102	98	97	100
640-45642-6 MS	OW-102	101	98	99
640-45642-6 MSD	OW-102	100	101	100
640-45642-7	OW-304R	98	97	101
640-45642-7 - DL	OW-304R	98	95	100
640-45642-7 MS	OW-304R	99	104	99
640-45642-7 MSD	OW-304R	97	100	98
640-45642-8	OW-304L	97	98	99
640-45642-8 - DL	OW-304L	98	98	99
640-45642-9	Equipment Blank	99	94	100
LCS 640-105748/3	Lab Control Sample	99	102	101
LCS 640-105786/4	Lab Control Sample	105	94	103
LCS 640-105797/2	Lab Control Sample	104	100	101
LCS 640-105801/3	Lab Control Sample	99	100	103
LCS 640-105804/3	Lab Control Sample	101	102	102
LCS 640-105821/3	Lab Control Sample	103	101	102
LCS 640-105826/2	Lab Control Sample	105	86	103
LCS 640-105831/3	Lab Control Sample	100	101	99
LCSD 640-105748/4	Lab Control Sample Dup	100	102	98
LCSD 640-105786/5	Lab Control Sample Dup	105	94	103
LCSD 640-105797/3	Lab Control Sample Dup	100	100	102
LCSD 640-105801/4	Lab Control Sample Dup	98	101	99
LCSD 640-105804/4	Lab Control Sample Dup	102	101	99
LCSD 640-105821/4	Lab Control Sample Dup	101	100	102
LCSD 640-105826/3	Lab Control Sample Dup	106	88	102
LCSD 640-105831/25	Lab Control Sample Dup	98	104	100
MB 640-105748/5	Method Blank	99	97	101
MB 640-105786/9	Method Blank	101	90	101
MB 640-105797/5	Method Blank	99	93	101
MB 640-105801/5	Method Blank	98	96	102
MB 640-105804/5	Method Blank	98	100	101
MB 640-105821/5	Method Blank	102	98	100
MB 640-105826/4	Method Blank	103	86	105
MB 640-105831/4	Method Blank	97	100	100

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

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

Lab Sample ID: MB 640-105748/5
Matrix: Water
Analysis Batch: 105748

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/07/13 13:34	1
Bromoform	<1.0		1.0	0.18	ug/L			11/07/13 13:34	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/07/13 13:34	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/07/13 13:34	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/07/13 13:34	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/07/13 13:34	1
Chloroform	<1.0		1.0	0.12	ug/L			11/07/13 13:34	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/07/13 13:34	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/07/13 13:34	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 13:34	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/07/13 13:34	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/07/13 13:34	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/07/13 13:34	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/07/13 13:34	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/07/13 13:34	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/07/13 13:34	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 13:34	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/07/13 13:34	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/07/13 13:34	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/07/13 13:34	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/07/13 13:34	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/07/13 13:34	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/07/13 13:34	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/07/13 13:34	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/07/13 13:34	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/07/13 13:34	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/07/13 13:34	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/07/13 13:34	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/07/13 13:34	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/07/13 13:34	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/07/13 13:34	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/07/13 13:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*70 - 119*		*11/07/13 13:34*	*1*
Dibromofluoromethane	*97*		*83 - 123*		*11/07/13 13:34*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/07/13 13:34*	*1*

Lab Sample ID: LCS 640-105748/3
Matrix: Water
Analysis Batch: 105748

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	28.6		ug/L		95	58 - 151
Bromoform	30.0	33.2		ug/L		111	62 - 140
Bromomethane	30.0	56.3	*	ug/L		188	22 - 179
Carbon tetrachloride	30.0	34.0		ug/L		113	53 - 134
Chlorobenzene	30.0	27.9		ug/L		93	63 - 132

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

Lab Sample ID: LCS 640-105748/3
Matrix: Water
Analysis Batch: 105748

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	30.0	29.3		ug/L		98	53 - 144
Chloroform	30.0	29.2		ug/L		97	60 - 126
Chloromethane	30.0	32.3		ug/L		108	62 - 130
cis-1,2-Dichloroethylene	30.0	30.0		ug/L		100	49 - 127
cis-1,3-Dichloropropene	30.0	30.7		ug/L		102	49 - 141
Dibromochloromethane	30.0	33.1		ug/L		110	55 - 134
Dibromomethane	30.0	28.9		ug/L		96	62 - 141
1,2-Dichlorobenzene	30.0	30.2		ug/L		101	60 - 154
1,3-Dichlorobenzene	30.0	28.3		ug/L		94	55 - 147
1,4-Dichlorobenzene	30.0	29.4		ug/L		98	58 - 151
Dichlorodifluoromethane	30.0	33.2		ug/L		111	28 - 133
1,1-Dichloroethane	30.0	28.8		ug/L		96	54 - 132
1,2-Dichloroethane	30.0	27.5		ug/L		92	51 - 167
1,1-Dichloroethene	30.0	29.7		ug/L		99	43 - 118
1,2-Dichloropropane	30.0	28.6		ug/L		95	60 - 138
Methylene Chloride	30.0	29.0		ug/L		97	52 - 132
1,1,1,2-Tetrachloroethane	30.0	33.1		ug/L		110	60 - 134
1,1,2,2-Tetrachloroethane	30.0	27.5		ug/L		92	63 - 148
Tetrachloroethene	30.0	29.2		ug/L		97	48 - 136
trans-1,2-Dichloroethene	30.0	30.7		ug/L		102	46 - 125
trans-1,3-Dichloropropene	30.0	32.4		ug/L		108	52 - 140
1,1,1-Trichloroethane	30.0	31.9		ug/L		106	58 - 136
1,1,2-Trichloroethane	30.0	29.0		ug/L		97	60 - 140
Trichloroethene	30.0	29.4		ug/L		98	59 - 129
Trichlorofluoromethane	30.0	33.3		ug/L		111	62 - 138
1,2,3-Trichloropropane	30.0	27.5		ug/L		92	51 - 171
Vinyl chloride	30.0	33.0		ug/L		110	66 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*70 - 119*
Dibromofluoromethane	*102*		*83 - 123*
Toluene-d8 (Surr)	*101*		*78 - 126*

Lab Sample ID: LCSD 640-105748/4
Matrix: Water
Analysis Batch: 105748

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	28.5		ug/L		95	58 - 151	0	24
Bromoform	30.0	32.4		ug/L		108	62 - 140	2	25
Bromomethane	30.0	56.1	*	ug/L		187	22 - 179	0	44
Carbon tetrachloride	30.0	31.8		ug/L		106	53 - 134	7	19
Chlorobenzene	30.0	27.2		ug/L		91	63 - 132	3	20
Chloroethane	30.0	28.0		ug/L		93	53 - 144	5	38
Chloroform	30.0	28.5		ug/L		95	60 - 126	2	30
Chloromethane	30.0	31.0		ug/L		103	62 - 130	4	34
cis-1,2-Dichloroethylene	30.0	28.9		ug/L		96	49 - 127	4	29
cis-1,3-Dichloropropene	30.0	29.9		ug/L		100	49 - 141	3	24

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

Lab Sample ID: LCSD 640-105748/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	30.0	31.3		ug/L		104	55 - 134	5	24
Dibromomethane	30.0	27.7		ug/L		92	62 - 141	4	21
1,2-Dichlorobenzene	30.0	29.5		ug/L		98	60 - 154	2	22
1,3-Dichlorobenzene	30.0	28.4		ug/L		95	55 - 147	0	21
1,4-Dichlorobenzene	30.0	29.6		ug/L		99	58 - 151	1	21
Dichlorodifluoromethane	30.0	31.7		ug/L		106	28 - 133	5	35
1,1-Dichloroethane	30.0	28.1		ug/L		94	54 - 132	3	30
1,2-Dichloroethane	30.0	26.6		ug/L		89	51 - 167	3	28
1,1-Dichloroethene	30.0	29.9		ug/L		100	43 - 118	1	29
1,2-Dichloropropane	30.0	28.2		ug/L		94	60 - 138	1	20
Methylene Chloride	30.0	28.1		ug/L		94	52 - 132	3	30
1,1,1,2-Tetrachloroethane	30.0	32.1		ug/L		107	60 - 134	3	26
1,1,2,2-Tetrachloroethane	30.0	27.1		ug/L		90	63 - 148	1	22
Tetrachloroethene	30.0	28.9		ug/L		96	48 - 136	1	38
trans-1,2-Dichloroethene	30.0	29.0		ug/L		97	46 - 125	6	32
trans-1,3-Dichloropropene	30.0	32.0		ug/L		107	52 - 140	1	20
1,1,1-Trichloroethane	30.0	30.4		ug/L		101	58 - 136	5	21
1,1,2-Trichloroethane	30.0	27.7		ug/L		92	60 - 140	5	22
Trichloroethene	30.0	28.6		ug/L		95	59 - 129	3	22
Trichlorofluoromethane	30.0	32.4		ug/L		108	62 - 138	3	40
1,2,3-Trichloropropane	30.0	26.9		ug/L		90	51 - 171	2	32
Vinyl chloride	30.0	33.0		ug/L		110	66 - 121	0	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*70 - 119*
Dibromofluoromethane	*102*		*83 - 123*
Toluene-d8 (Surr)	*98*		*78 - 126*

Lab Sample ID: 640-45593-7 MS — **Client Sample ID: WB-4L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	<1.0		20.0	20.0		ug/L		100	70 - 139
Bromoform	<1.0		20.0	22.0		ug/L		110	49 - 150
Bromomethane	<1.0	*	20.0	28.1	F	ug/L		141	23 - 140
Carbon tetrachloride	<1.0		20.0	22.1		ug/L		111	50 - 162
Chlorobenzene	<1.0		20.0	20.6		ug/L		103	70 - 125
Chloroethane	<1.0		20.0	18.4		ug/L		92	43 - 165
Chloroform	<1.0		20.0	20.2		ug/L		101	70 - 124
Chloromethane	<1.0		20.0	19.4		ug/L		97	56 - 137
cis-1,2-Dichloroethylene	17		20.0	38.8		ug/L		110	70 - 122
cis-1,3-Dichloropropene	<1.0		20.0	19.9		ug/L		99	46 - 131
Dibromochloromethane	<1.0		20.0	22.3		ug/L		111	58 - 131
Dibromomethane	<1.0		20.0	19.8		ug/L		99	63 - 131
1,2-Dichlorobenzene	<1.0		20.0	20.8		ug/L		104	70 - 142
1,3-Dichlorobenzene	<1.0		20.0	19.3		ug/L		96	70 - 137
1,4-Dichlorobenzene	<1.0		20.0	20.8		ug/L		104	70 - 137

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

Lab Sample ID: 640-45593-7 MS — **Client Sample ID: WB-4L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	<1.0		20.0	17.3		ug/L		87	37 - 139
1,1-Dichloroethane	<1.0		20.0	19.7		ug/L		98	70 - 126
1,2-Dichloroethane	<1.0		20.0	19.8		ug/L		99	65 - 150
1,1-Dichloroethene	0.30	J	20.0	20.5		ug/L		101	60 - 127
1,2-Dichloropropane	<1.0		20.0	19.7		ug/L		99	66 - 135
Methylene Chloride	<5.0		20.0	19.9		ug/L		99	61 - 134
1,1,1,2-Tetrachloroethane	<1.0		20.0	21.6		ug/L		108	59 - 140
1,1,2,2-Tetrachloroethane	<1.0		20.0	20.4		ug/L		102	41 - 149
Tetrachloroethene	<1.0		20.0	21.1		ug/L		105	62 - 128
trans-1,2-Dichloroethene	<1.0		20.0	20.5		ug/L		103	64 - 127
trans-1,3-Dichloropropene	<1.0		20.0	20.1		ug/L		100	40 - 137
1,1,1-Trichloroethane	<1.0		20.0	21.6		ug/L		108	61 - 152
1,1,2-Trichloroethane	<1.0		20.0	19.9		ug/L		100	60 - 132
Trichloroethene	27		20.0	50.7		ug/L		116	70 - 131
Trichlorofluoromethane	<1.0		20.0	19.0		ug/L		95	60 - 157
1,2,3-Trichloropropane	<1.0		20.0	20.1		ug/L		101	35 - 164
Vinyl chloride	0.41	J	20.0	20.2		ug/L		99	63 - 126

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*70 - 119*
Dibromofluoromethane	*102*		*83 - 123*
Toluene-d8 (Surr)	*99*		*78 - 126*

Lab Sample ID: 640-45593-7 MSD — **Client Sample ID: WB-4L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105748

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	<1.0		20.0	17.1		ug/L		86	70 - 139	15	19
Bromoform	<1.0		20.0	18.6		ug/L		93	49 - 150	17	20
Bromomethane	<1.0	*	20.0	22.6		ug/L		113	23 - 140	22	41
Carbon tetrachloride	<1.0		20.0	18.1		ug/L		91	50 - 162	20	28
Chlorobenzene	<1.0		20.0	16.8		ug/L		84	70 - 125	21	23
Chloroethane	<1.0		20.0	16.0		ug/L		80	43 - 165	14	45
Chloroform	<1.0		20.0	18.1		ug/L		90	70 - 124	11	21
Chloromethane	<1.0		20.0	19.1		ug/L		95	56 - 137	2	16
cis-1,2-Dichloroethylene	17		20.0	34.8		ug/L		90	70 - 122	11	22
cis-1,3-Dichloropropene	<1.0		20.0	16.9		ug/L		85	46 - 131	16	25
Dibromochloromethane	<1.0		20.0	18.6		ug/L		93	58 - 131	18	18
Dibromomethane	<1.0		20.0	17.2		ug/L		86	63 - 131	14	21
1,2-Dichlorobenzene	<1.0		20.0	18.8		ug/L		94	70 - 142	10	24
1,3-Dichlorobenzene	<1.0		20.0	16.8		ug/L		84	70 - 137	14	24
1,4-Dichlorobenzene	<1.0		20.0	19.2		ug/L		96	70 - 137	8	25
Dichlorodifluoromethane	<1.0		20.0	16.0		ug/L		80	37 - 139	8	31
1,1-Dichloroethane	<1.0		20.0	17.3		ug/L		86	70 - 126	13	29
1,2-Dichloroethane	<1.0		20.0	17.0		ug/L		85	65 - 150	15	19
1,1-Dichloroethene	0.30	J	20.0	17.6		ug/L		86	60 - 127	15	33
1,2-Dichloropropane	<1.0		20.0	17.3		ug/L		87	66 - 135	13	22

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

Lab Sample ID: 640-45593-7 MSD — **Client Sample ID: WB-4L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105748

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	<5.0		20.0	17.4		ug/L		87	61 - 134	14	21
1,1,1,2-Tetrachloroethane	<1.0		20.0	18.3		ug/L		92	59 - 140	16	22
1,1,2,2-Tetrachloroethane	<1.0		20.0	18.6		ug/L		93	41 - 149	9	23
Tetrachloroethene	<1.0		20.0	17.1		ug/L		85	62 - 128	21	26
trans-1,2-Dichloroethene	<1.0		20.0	18.2		ug/L		91	64 - 127	12	21
trans-1,3-Dichloropropene	<1.0		20.0	17.6		ug/L		88	40 - 137	13	25
1,1,1-Trichloroethane	<1.0		20.0	17.9		ug/L		89	61 - 152	19	21
1,1,2-Trichloroethane	<1.0		20.0	18.2		ug/L		91	60 - 132	9	22
Trichloroethene	27		20.0	43.1		ug/L		78	70 - 131	16	28
Trichlorofluoromethane	<1.0		20.0	18.5		ug/L		93	60 - 157	2	20
1,2,3-Trichloropropane	<1.0		20.0	18.0		ug/L		90	35 - 164	11	24
Vinyl chloride	0.41	J	20.0	18.0		ug/L		88	63 - 126	12	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 119*
Dibromofluoromethane	*103*		*83 - 123*
Toluene-d8 (Surr)	*97*		*78 - 126*

Lab Sample ID: MB 640-105786/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 12:29	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 12:29	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/08/13 12:29	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 12:29	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 12:29	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 12:29	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 12:29	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 12:29	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/08/13 12:29	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 12:29	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 12:29	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 12:29	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 12:29	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 12:29	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 12:29	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 12:29	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 12:29	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 12:29	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/08/13 12:29	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 12:29	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 12:29	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 12:29	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 12:29	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 12:29	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/08/13 12:29	1

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

Lab Sample ID: MB 640-105786/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 12:29	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 12:29	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 12:29	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/08/13 12:29	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 12:29	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 12:29	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/08/13 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*70 - 119*		*11/08/13 12:29*	*1*
Dibromofluoromethane	*90*		*83 - 123*		*11/08/13 12:29*	*1*
Toluene-d8 (Surr)	*101*		*78 - 126*		*11/08/13 12:29*	*1*

Lab Sample ID: LCS 640-105786/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	29.8		ug/L		99	58 - 151
Bromoform	30.0	37.1		ug/L		124	62 - 140
Bromomethane	30.0	21.1		ug/L		70	22 - 179
Carbon tetrachloride	30.0	36.2		ug/L		121	53 - 134
Chlorobenzene	30.0	29.3		ug/L		98	63 - 132
Chloroethane	30.0	28.2		ug/L		94	53 - 144
Chloroform	30.0	29.4		ug/L		98	60 - 126
Chloromethane	30.0	27.9		ug/L		93	62 - 130
cis-1,2-Dichloroethylene	30.0	27.6		ug/L		92	49 - 127
cis-1,3-Dichloropropene	30.0	33.2		ug/L		111	49 - 141
Dibromochloromethane	30.0	34.8		ug/L		116	55 - 134
Dibromomethane	30.0	30.7		ug/L		102	62 - 141
1,2-Dichlorobenzene	30.0	30.1		ug/L		100	60 - 154
1,3-Dichlorobenzene	30.0	30.1		ug/L		100	55 - 147
1,4-Dichlorobenzene	30.0	30.1		ug/L		100	58 - 151
Dichlorodifluoromethane	30.0	29.2		ug/L		97	28 - 133
1,1-Dichloroethane	30.0	29.1		ug/L		97	54 - 132
1,2-Dichloroethane	30.0	32.1		ug/L		107	51 - 167
1,1-Dichloroethene	30.0	30.1		ug/L		100	43 - 118
1,2-Dichloropropane	30.0	30.2		ug/L		101	60 - 138
Methylene Chloride	30.0	28.0		ug/L		93	52 - 132
1,1,1,2-Tetrachloroethane	30.0	33.4		ug/L		111	60 - 134
1,1,2,2-Tetrachloroethane	30.0	31.6		ug/L		105	63 - 148
Tetrachloroethene	30.0	29.8		ug/L		99	48 - 136
trans-1,2-Dichloroethene	30.0	28.7		ug/L		96	46 - 125
trans-1,3-Dichloropropene	30.0	36.1		ug/L		120	52 - 140
1,1,1-Trichloroethane	30.0	33.3		ug/L		111	58 - 136
1,1,2-Trichloroethane	30.0	30.6		ug/L		102	60 - 140
Trichloroethene	30.0	29.8		ug/L		99	59 - 129
Trichlorofluoromethane	30.0	32.0		ug/L		107	62 - 138

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

Lab Sample ID: LCS 640-105786/4
Matrix: Water
Analysis Batch: 105786

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	30.0	30.8		ug/L		103	51 - 171
Vinyl chloride	30.0	28.8		ug/L		96	66 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 119*
Dibromofluoromethane	*94*		*83 - 123*
Toluene-d8 (Surr)	*103*		*78 - 126*

Lab Sample ID: LCSD 640-105786/5
Matrix: Water
Analysis Batch: 105786

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	30.7		ug/L		102	58 - 151	3	24
Bromoform	30.0	38.4		ug/L		128	62 - 140	4	25
Bromomethane	30.0	23.3		ug/L		78	22 - 179	10	44
Carbon tetrachloride	30.0	37.0		ug/L		123	53 - 134	2	19
Chlorobenzene	30.0	30.2		ug/L		101	63 - 132	3	20
Chloroethane	30.0	29.5		ug/L		98	53 - 144	5	38
Chloroform	30.0	30.5		ug/L		102	60 - 126	4	30
Chloromethane	30.0	31.0		ug/L		103	62 - 130	10	34
cis-1,2-Dichloroethylene	30.0	28.6		ug/L		95	49 - 127	3	29
cis-1,3-Dichloropropene	30.0	33.5		ug/L		112	49 - 141	1	24
Dibromochloromethane	30.0	35.7		ug/L		119	55 - 134	2	24
Dibromomethane	30.0	32.2		ug/L		107	62 - 141	5	21
1,2-Dichlorobenzene	30.0	30.9		ug/L		103	60 - 154	3	22
1,3-Dichlorobenzene	30.0	31.2		ug/L		104	55 - 147	4	21
1,4-Dichlorobenzene	30.0	30.9		ug/L		103	58 - 151	3	21
Dichlorodifluoromethane	30.0	30.9		ug/L		103	28 - 133	6	35
1,1-Dichloroethane	30.0	30.2		ug/L		101	54 - 132	4	30
1,2-Dichloroethane	30.0	33.3		ug/L		111	51 - 167	4	28
1,1-Dichloroethene	30.0	31.0		ug/L		103	43 - 118	3	29
1,2-Dichloropropane	30.0	30.8		ug/L		103	60 - 138	2	20
Methylene Chloride	30.0	28.4		ug/L		95	52 - 132	2	30
1,1,1,2-Tetrachloroethane	30.0	34.6		ug/L		115	60 - 134	4	26
1,1,2,2-Tetrachloroethane	30.0	31.4		ug/L		105	63 - 148	0	22
Tetrachloroethene	30.0	31.2		ug/L		104	48 - 136	4	38
trans-1,2-Dichloroethene	30.0	29.7		ug/L		99	46 - 125	3	32
trans-1,3-Dichloropropene	30.0	36.5		ug/L		122	52 - 140	1	20
1,1,1-Trichloroethane	30.0	33.9		ug/L		113	58 - 136	2	21
1,1,2-Trichloroethane	30.0	32.5		ug/L		108	60 - 140	6	22
Trichloroethene	30.0	31.7		ug/L		106	59 - 129	6	22
Trichlorofluoromethane	30.0	35.7		ug/L		119	62 - 138	11	40
1,2,3-Trichloropropane	30.0	31.9		ug/L		106	51 - 171	3	32
Vinyl chloride	30.0	30.5		ug/L		102	66 - 121	6	31

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

Lab Sample ID: LCSD 640-105786/5
Matrix: Water
Analysis Batch: 105786

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	105		70 - 119
Dibromofluoromethane	94		83 - 123
Toluene-d8 (Surr)	103		78 - 126

Lab Sample ID: MB 640-105797/5
Matrix: Water
Analysis Batch: 105797

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 07:50	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 07:50	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 07:50	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 07:50	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 07:50	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 07:50	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 07:50	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 07:50	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/09/13 07:50	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 07:50	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 07:50	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 07:50	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 07:50	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 07:50	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 07:50	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 07:50	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 07:50	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 07:50	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 07:50	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 07:50	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 07:50	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 07:50	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 07:50	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 07:50	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 07:50	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 07:50	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 07:50	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 07:50	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/09/13 07:50	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 07:50	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 07:50	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 07:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		70 - 119		11/09/13 07:50	1
Dibromofluoromethane	93		83 - 123		11/09/13 07:50	1
Toluene-d8 (Surr)	101		78 - 126		11/09/13 07:50	1

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

Lab Sample ID: LCS 640-105797/2
Matrix: Water
Analysis Batch: 105797

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	32.6		ug/L		109	58 - 151
Bromoform	30.0	28.8		ug/L		96	62 - 140
Bromomethane	30.0	31.9	E	ug/L		106	22 - 179
Carbon tetrachloride	30.0	32.8		ug/L		109	53 - 134
Chlorobenzene	30.0	32.3		ug/L		108	63 - 132
Chloroethane	30.0	29.0		ug/L		97	53 - 144
Chloroform	30.0	33.7		ug/L		112	60 - 126
Chloromethane	30.0	27.3		ug/L		91	62 - 130
cis-1,2-Dichloroethylene	30.0	33.1		ug/L		110	49 - 127
cis-1,3-Dichloropropene	30.0	30.6		ug/L		102	49 - 141
Dibromochloromethane	30.0	33.0		ug/L		110	55 - 134
Dibromomethane	30.0	33.4		ug/L		111	62 - 141
1,2-Dichlorobenzene	30.0	31.6		ug/L		105	60 - 154
1,3-Dichlorobenzene	30.0	32.2		ug/L		107	55 - 147
1,4-Dichlorobenzene	30.0	32.0		ug/L		107	58 - 151
Dichlorodifluoromethane	30.0	29.6		ug/L		99	28 - 133
1,1-Dichloroethane	30.0	33.8		ug/L		113	54 - 132
1,2-Dichloroethane	30.0	33.2		ug/L		111	51 - 167
1,1-Dichloroethene	30.0	35.4		ug/L		118	43 - 118
1,2-Dichloropropane	30.0	33.2		ug/L		111	60 - 138
Methylene Chloride	30.0	32.8		ug/L		109	52 - 132
1,1,1,2-Tetrachloroethane	30.0	30.2		ug/L		101	60 - 134
1,1,2,2-Tetrachloroethane	30.0	32.6		ug/L		109	63 - 148
Tetrachloroethene	30.0	31.9		ug/L		106	48 - 136
trans-1,2-Dichloroethene	30.0	33.9		ug/L		113	46 - 125
trans-1,3-Dichloropropene	30.0	30.8		ug/L		103	52 - 140
1,1,1-Trichloroethane	30.0	35.1		ug/L		117	58 - 136
1,1,2-Trichloroethane	30.0	33.1		ug/L		110	60 - 140
Trichloroethene	30.0	33.6		ug/L		112	59 - 129
Trichlorofluoromethane	30.0	30.0		ug/L		100	62 - 138
1,2,3-Trichloropropane	30.0	30.1		ug/L		100	51 - 171
Vinyl chloride	30.0	28.5		ug/L		95	66 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 119*
Dibromofluoromethane	*100*		*83 - 123*
Toluene-d8 (Surr)	*101*		*78 - 126*

Lab Sample ID: LCSD 640-105797/3
Matrix: Water
Analysis Batch: 105797

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	31.7		ug/L		106	58 - 151	3	24
Bromoform	30.0	27.7		ug/L		92	62 - 140	4	25
Bromomethane	30.0	30.1	E	ug/L		100	22 - 179	6	44
Carbon tetrachloride	30.0	31.4		ug/L		105	53 - 134	5	19
Chlorobenzene	30.0	31.9		ug/L		106	63 - 132	1	20

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

Lab Sample ID: LCSD 640-105797/3
Matrix: Water
Analysis Batch: 105797

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	30.0	30.6		ug/L		102	53 - 144	5	38
Chloroform	30.0	32.6		ug/L		109	60 - 126	3	30
Chloromethane	30.0	25.6		ug/L		85	62 - 130	6	34
cis-1,2-Dichloroethylene	30.0	32.0		ug/L		107	49 - 127	4	29
cis-1,3-Dichloropropene	30.0	29.9		ug/L		100	49 - 141	2	24
Dibromochloromethane	30.0	31.3		ug/L		104	55 - 134	5	24
Dibromomethane	30.0	33.0		ug/L		110	62 - 141	1	21
1,2-Dichlorobenzene	30.0	30.3		ug/L		101	60 - 154	4	22
1,3-Dichlorobenzene	30.0	31.2		ug/L		104	55 - 147	3	21
1,4-Dichlorobenzene	30.0	30.8		ug/L		103	58 - 151	4	21
Dichlorodifluoromethane	30.0	28.2		ug/L		94	28 - 133	5	35
1,1-Dichloroethane	30.0	33.2		ug/L		111	54 - 132	2	30
1,2-Dichloroethane	30.0	31.8		ug/L		106	51 - 167	4	28
1,1-Dichloroethene	30.0	34.1		ug/L		114	43 - 118	4	29
1,2-Dichloropropane	30.0	32.5		ug/L		108	60 - 138	2	20
Methylene Chloride	30.0	31.3		ug/L		104	52 - 132	5	30
1,1,1,2-Tetrachloroethane	30.0	29.9		ug/L		100	60 - 134	1	26
1,1,2,2-Tetrachloroethane	30.0	31.3		ug/L		104	63 - 148	4	22
Tetrachloroethene	30.0	31.2		ug/L		104	48 - 136	2	38
trans-1,2-Dichloroethene	30.0	32.1		ug/L		107	46 - 125	6	32
trans-1,3-Dichloropropene	30.0	30.3		ug/L		101	52 - 140	2	20
1,1,1-Trichloroethane	30.0	33.1		ug/L		110	58 - 136	6	21
1,1,2-Trichloroethane	30.0	32.2		ug/L		107	60 - 140	3	22
Trichloroethene	30.0	32.7		ug/L		109	59 - 129	3	22
Trichlorofluoromethane	30.0	28.6		ug/L		95	62 - 138	5	40
1,2,3-Trichloropropane	30.0	29.5		ug/L		98	51 - 171	2	32
Vinyl chloride	30.0	27.1		ug/L		90	66 - 121	5	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*70 - 119*
Dibromofluoromethane	*100*		*83 - 123*
Toluene-d8 (Surr)	*102*		*78 - 126*

Lab Sample ID: 640-45642-6 MS
Matrix: Water
Analysis Batch: 105797

Client Sample ID: OW-102
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	<1.0		20.0	20.4		ug/L		102	70 - 139
Bromoform	<1.0		20.0	17.9		ug/L		89	49 - 150
Bromomethane	<1.0		20.0	20.0		ug/L		100	23 - 140
Carbon tetrachloride	<1.0		20.0	20.3		ug/L		101	50 - 162
Chlorobenzene	<1.0		20.0	20.9		ug/L		105	70 - 125
Chloroethane	<1.0		20.0	23.3		ug/L		117	43 - 165
Chloroform	<1.0		20.0	21.8		ug/L		109	70 - 124
Chloromethane	<1.0		20.0	20.9		ug/L		105	56 - 137
cis-1,2-Dichloroethylene	0.43	J	20.0	22.4		ug/L		110	70 - 122
cis-1,3-Dichloropropene	<1.0		20.0	18.1		ug/L		91	46 - 131

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

Lab Sample ID: 640-45642-6 MS — **Client Sample ID: OW-102**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105797

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromochloromethane	<1.0		20.0	19.9		ug/L		100	58 - 131
Dibromomethane	<1.0		20.0	21.6		ug/L		108	63 - 131
1,2-Dichlorobenzene	<1.0		20.0	20.4		ug/L		102	70 - 142
1,3-Dichlorobenzene	<1.0		20.0	20.5		ug/L		102	70 - 137
1,4-Dichlorobenzene	<1.0		20.0	20.4		ug/L		102	70 - 137
Dichlorodifluoromethane	<1.0		20.0	20.4		ug/L		102	37 - 139
1,1-Dichloroethane	<1.0		20.0	22.4		ug/L		112	70 - 126
1,2-Dichloroethane	<1.0		20.0	21.5		ug/L		108	65 - 150
1,1-Dichloroethene	<1.0		20.0	22.5		ug/L		113	60 - 127
1,2-Dichloropropane	<1.0		20.0	22.1		ug/L		110	66 - 135
Methylene Chloride	<5.0		20.0	21.3		ug/L		106	61 - 134
1,1,1,2-Tetrachloroethane	<1.0		20.0	19.3		ug/L		96	59 - 140
1,1,2,2-Tetrachloroethane	<1.0		20.0	22.0		ug/L		110	41 - 149
Tetrachloroethene	<1.0		20.0	20.1		ug/L		101	62 - 128
trans-1,2-Dichloroethene	<1.0		20.0	22.1		ug/L		110	64 - 127
trans-1,3-Dichloropropene	<1.0		20.0	17.9		ug/L		89	40 - 137
1,1,1-Trichloroethane	<1.0		20.0	21.5		ug/L		108	61 - 152
1,1,2-Trichloroethane	<1.0		20.0	21.1		ug/L		106	60 - 132
Trichloroethene	1.0		20.0	23.4		ug/L		112	70 - 131
Trichlorofluoromethane	<1.0		20.0	20.3		ug/L		101	60 - 157
1,2,3-Trichloropropane	<1.0		20.0	20.7		ug/L		103	35 - 164
Vinyl chloride	<1.0		20.0	20.9		ug/L		105	63 - 126

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*70 - 119*
Dibromofluoromethane	*98*		*83 - 123*
Toluene-d8 (Surr)	*99*		*78 - 126*

Lab Sample ID: 640-45642-6 MSD — **Client Sample ID: OW-102**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105797

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	<1.0		20.0	19.0		ug/L		95	70 - 139	7	19
Bromoform	<1.0		20.0	15.9		ug/L		79	49 - 150	12	20
Bromomethane	<1.0		20.0	23.4		ug/L		117	23 - 140	15	41
Carbon tetrachloride	<1.0		20.0	18.7		ug/L		94	50 - 162	8	28
Chlorobenzene	<1.0		20.0	19.8		ug/L		99	70 - 125	5	23
Chloroethane	<1.0		20.0	24.5		ug/L		122	43 - 165	5	45
Chloroform	<1.0		20.0	20.6		ug/L		103	70 - 124	6	21
Chloromethane	<1.0		20.0	21.9		ug/L		109	56 - 137	4	16
cis-1,2-Dichloroethylene	0.43	J	20.0	20.8		ug/L		102	70 - 122	7	22
cis-1,3-Dichloropropene	<1.0		20.0	16.8		ug/L		84	46 - 131	8	25
Dibromochloromethane	<1.0		20.0	18.5		ug/L		92	58 - 131	7	18
Dibromomethane	<1.0		20.0	20.0		ug/L		100	63 - 131	8	21
1,2-Dichlorobenzene	<1.0		20.0	18.6		ug/L		93	70 - 142	9	24
1,3-Dichlorobenzene	<1.0		20.0	18.7		ug/L		93	70 - 137	9	24
1,4-Dichlorobenzene	<1.0		20.0	18.2		ug/L		91	70 - 137	11	25

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

Lab Sample ID: 640-45642-6 MSD — **Client Sample ID: OW-102**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105797

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	<1.0		20.0	17.4		ug/L		87	37 - 139	16	31
1,1-Dichloroethane	<1.0		20.0	21.1		ug/L		106	70 - 126	6	29
1,2-Dichloroethane	<1.0		20.0	20.2		ug/L		101	65 - 150	6	19
1,1-Dichloroethene	<1.0		20.0	21.8		ug/L		109	60 - 127	3	33
1,2-Dichloropropane	<1.0		20.0	20.0		ug/L		100	66 - 135	10	22
Methylene Chloride	<5.0		20.0	20.7		ug/L		104	61 - 134	3	21
1,1,1,2-Tetrachloroethane	<1.0		20.0	17.6		ug/L		88	59 - 140	9	22
1,1,2,2-Tetrachloroethane	<1.0		20.0	20.5		ug/L		103	41 - 149	7	23
Tetrachloroethene	<1.0		20.0	18.5		ug/L		92	62 - 128	9	26
trans-1,2-Dichloroethene	<1.0		20.0	21.1		ug/L		105	64 - 127	5	21
trans-1,3-Dichloropropene	<1.0		20.0	16.9		ug/L		85	40 - 137	5	25
1,1,1-Trichloroethane	<1.0		20.0	20.5		ug/L		103	61 - 152	5	21
1,1,2-Trichloroethane	<1.0		20.0	19.5		ug/L		98	60 - 132	8	22
Trichloroethene	1.0		20.0	21.4		ug/L		102	70 - 131	9	28
Trichlorofluoromethane	<1.0		20.0	21.1		ug/L		105	60 - 157	4	20
1,2,3-Trichloropropane	<1.0		20.0	18.9		ug/L		95	35 - 164	9	24
Vinyl chloride	<1.0		20.0	22.4		ug/L		112	63 - 126	7	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*70 - 119*
Dibromofluoromethane	*101*		*83 - 123*
Toluene-d8 (Surr)	*100*		*78 - 126*

Lab Sample ID: MB 640-105801/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105801

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 17:58	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 17:58	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 17:58	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 17:58	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 17:58	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 17:58	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 17:58	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 17:58	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/09/13 17:58	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 17:58	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 17:58	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 17:58	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 17:58	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 17:58	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 17:58	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 17:58	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 17:58	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 17:58	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 17:58	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 17:58	1

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

Lab Sample ID: MB 640-105801/5
Matrix: Water
Analysis Batch: 105801

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 17:58	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 17:58	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 17:58	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 17:58	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 17:58	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 17:58	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 17:58	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 17:58	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/09/13 17:58	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 17:58	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 17:58	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 17:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*70 - 119*		*11/09/13 17:58*	*1*
Dibromofluoromethane	*96*		*83 - 123*		*11/09/13 17:58*	*1*
Toluene-d8 (Surr)	*102*		*78 - 126*		*11/09/13 17:58*	*1*

Lab Sample ID: LCS 640-105801/3
Matrix: Water
Analysis Batch: 105801

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	29.5		ug/L		98	58 - 151
Bromoform	30.0	39.5		ug/L		132	62 - 140
Bromomethane	30.0	46.4		ug/L		155	22 - 179
Carbon tetrachloride	30.0	38.7		ug/L		129	53 - 134
Chlorobenzene	30.0	28.4		ug/L		95	63 - 132
Chloroethane	30.0	29.4		ug/L		98	53 - 144
Chloroform	30.0	28.8		ug/L		96	60 - 126
Chloromethane	30.0	31.3		ug/L		104	62 - 130
cis-1,2-Dichloroethylene	30.0	28.4		ug/L		95	49 - 127
cis-1,3-Dichloropropene	30.0	34.4		ug/L		115	49 - 141
Dibromochloromethane	30.0	35.8		ug/L		119	55 - 134
Dibromomethane	30.0	28.6		ug/L		95	62 - 141
1,2-Dichlorobenzene	30.0	30.9		ug/L		103	60 - 154
1,3-Dichlorobenzene	30.0	29.0		ug/L		97	55 - 147
1,4-Dichlorobenzene	30.0	30.4		ug/L		101	58 - 151
Dichlorodifluoromethane	30.0	29.1		ug/L		97	28 - 133
1,1-Dichloroethane	30.0	27.6		ug/L		92	54 - 132
1,2-Dichloroethane	30.0	27.9		ug/L		93	51 - 167
1,1-Dichloroethene	30.0	30.7		ug/L		102	43 - 118
1,2-Dichloropropane	30.0	29.5		ug/L		98	60 - 138
Methylene Chloride	30.0	28.4		ug/L		95	52 - 132
1,1,1,2-Tetrachloroethane	30.0	36.5		ug/L		122	60 - 134
1,1,2,2-Tetrachloroethane	30.0	28.2		ug/L		94	63 - 148
Tetrachloroethene	30.0	30.2		ug/L		101	48 - 136
trans-1,2-Dichloroethene	30.0	30.6		ug/L		102	46 - 125

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

Lab Sample ID: LCS 640-105801/3
Matrix: Water
Analysis Batch: 105801

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	30.0	35.2		ug/L		117	52 - 140
1,1,1-Trichloroethane	30.0	33.4		ug/L		111	58 - 136
1,1,2-Trichloroethane	30.0	29.5		ug/L		98	60 - 140
Trichloroethene	30.0	30.4		ug/L		101	59 - 129
Trichlorofluoromethane	30.0	33.2		ug/L		111	62 - 138
1,2,3-Trichloropropane	30.0	27.4		ug/L		91	51 - 171
Vinyl chloride	30.0	32.5		ug/L		108	66 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*70 - 119*
Dibromofluoromethane	*100*		*83 - 123*
Toluene-d8 (Surr)	*103*		*78 - 126*

Lab Sample ID: LCSD 640-105801/4
Matrix: Water
Analysis Batch: 105801

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	30.5		ug/L		102	58 - 151	3	24
Bromoform	30.0	39.0		ug/L		130	62 - 140	1	25
Bromomethane	30.0	46.4		ug/L		155	22 - 179	0	44
Carbon tetrachloride	30.0	37.8		ug/L		126	53 - 134	2	19
Chlorobenzene	30.0	29.3		ug/L		98	63 - 132	3	20
Chloroethane	30.0	28.5		ug/L		95	53 - 144	3	38
Chloroform	30.0	28.7		ug/L		96	60 - 126	0	30
Chloromethane	30.0	30.5		ug/L		102	62 - 130	3	34
cis-1,2-Dichloroethylene	30.0	28.7		ug/L		96	49 - 127	1	29
cis-1,3-Dichloropropene	30.0	33.0		ug/L		110	49 - 141	4	24
Dibromochloromethane	30.0	36.6		ug/L		122	55 - 134	2	24
Dibromomethane	30.0	28.5		ug/L		95	62 - 141	0	21
1,2-Dichlorobenzene	30.0	30.9		ug/L		103	60 - 154	0	22
1,3-Dichlorobenzene	30.0	29.6		ug/L		99	55 - 147	2	21
1,4-Dichlorobenzene	30.0	30.0		ug/L		100	58 - 151	2	21
Dichlorodifluoromethane	30.0	29.1		ug/L		97	28 - 133	0	35
1,1-Dichloroethane	30.0	28.4		ug/L		95	54 - 132	3	30
1,2-Dichloroethane	30.0	28.0		ug/L		93	51 - 167	0	28
1,1-Dichloroethene	30.0	30.7		ug/L		102	43 - 118	0	29
1,2-Dichloropropane	30.0	28.4		ug/L		95	60 - 138	4	20
Methylene Chloride	30.0	28.0		ug/L		93	52 - 132	1	30
1,1,1,2-Tetrachloroethane	30.0	36.8		ug/L		123	60 - 134	1	26
1,1,2,2-Tetrachloroethane	30.0	29.8		ug/L		99	63 - 148	5	22
Tetrachloroethene	30.0	30.2		ug/L		101	48 - 136	0	38
trans-1,2-Dichloroethene	30.0	30.4		ug/L		101	46 - 125	1	32
trans-1,3-Dichloropropene	30.0	35.0		ug/L		117	52 - 140	1	20
1,1,1-Trichloroethane	30.0	33.1		ug/L		110	58 - 136	1	21
1,1,2-Trichloroethane	30.0	27.9		ug/L		93	60 - 140	6	22
Trichloroethene	30.0	30.1		ug/L		100	59 - 129	1	22
Trichlorofluoromethane	30.0	31.3		ug/L		104	62 - 138	6	40

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

Lab Sample ID: LCSD 640-105801/4
Matrix: Water
Analysis Batch: 105801

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane			30.0	28.9		ug/L		96	51 - 171	5	32
Vinyl chloride			30.0	30.4		ug/L		101	66 - 121	6	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*70 - 119*
Dibromofluoromethane	*101*		*83 - 123*
Toluene-d8 (Surr)	*99*		*78 - 126*

Lab Sample ID: MB 640-105804/5
Matrix: Water
Analysis Batch: 105804

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/08/13 12:18	1
Bromoform	<1.0		1.0	0.18	ug/L			11/08/13 12:18	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/08/13 12:18	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/08/13 12:18	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/08/13 12:18	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/08/13 12:18	1
Chloroform	<1.0		1.0	0.12	ug/L			11/08/13 12:18	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/08/13 12:18	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/08/13 12:18	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 12:18	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/08/13 12:18	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/08/13 12:18	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/08/13 12:18	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/08/13 12:18	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/08/13 12:18	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/08/13 12:18	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 12:18	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/08/13 12:18	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/08/13 12:18	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/08/13 12:18	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/08/13 12:18	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/08/13 12:18	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/08/13 12:18	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/08/13 12:18	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/08/13 12:18	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/08/13 12:18	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/08/13 12:18	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/08/13 12:18	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/08/13 12:18	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/08/13 12:18	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/08/13 12:18	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/08/13 12:18	1

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

Lab Sample ID: MB 640-105804/5
Matrix: Water
Analysis Batch: 105804

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 119		11/08/13 12:18	1
Dibromofluoromethane	100		83 - 123		11/08/13 12:18	1
Toluene-d8 (Surr)	101		78 - 126		11/08/13 12:18	1

Lab Sample ID: LCS 640-105804/3
Matrix: Water
Analysis Batch: 105804

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	29.4		ug/L		98	58 - 151
Bromoform	30.0	36.7		ug/L		122	62 - 140
Bromomethane	30.0	54.5	*	ug/L		182	22 - 179
Carbon tetrachloride	30.0	37.2		ug/L		124	53 - 134
Chlorobenzene	30.0	28.9		ug/L		96	63 - 132
Chloroethane	30.0	31.2		ug/L		104	53 - 144
Chloroform	30.0	31.0		ug/L		103	60 - 126
Chloromethane	30.0	34.4		ug/L		115	62 - 130
cis-1,2-Dichloroethylene	30.0	30.4		ug/L		101	49 - 127
cis-1,3-Dichloropropene	30.0	33.5		ug/L		112	49 - 141
Dibromochloromethane	30.0	34.8		ug/L		116	55 - 134
Dibromomethane	30.0	30.1		ug/L		100	62 - 141
1,2-Dichlorobenzene	30.0	30.3		ug/L		101	60 - 154
1,3-Dichlorobenzene	30.0	28.6		ug/L		95	55 - 147
1,4-Dichlorobenzene	30.0	30.0		ug/L		100	58 - 151
Dichlorodifluoromethane	30.0	35.5		ug/L		118	28 - 133
1,1-Dichloroethane	30.0	29.6		ug/L		99	54 - 132
1,2-Dichloroethane	30.0	29.4		ug/L		98	51 - 167
1,1-Dichloroethene	30.0	30.8		ug/L		103	43 - 118
1,2-Dichloropropane	30.0	30.2		ug/L		101	60 - 138
Methylene Chloride	30.0	29.3		ug/L		98	52 - 132
1,1,1,2-Tetrachloroethane	30.0	35.0		ug/L		117	60 - 134
1,1,2,2-Tetrachloroethane	30.0	28.6		ug/L		95	63 - 148
Tetrachloroethene	30.0	29.9		ug/L		100	48 - 136
trans-1,2-Dichloroethene	30.0	31.0		ug/L		103	46 - 125
trans-1,3-Dichloropropene	30.0	35.1		ug/L		117	52 - 140
1,1,1-Trichloroethane	30.0	33.8		ug/L		113	58 - 136
1,1,2-Trichloroethane	30.0	30.8		ug/L		103	60 - 140
Trichloroethene	30.0	30.9		ug/L		103	59 - 129
Trichlorofluoromethane	30.0	35.0		ug/L		117	62 - 138
1,2,3-Trichloropropane	30.0	28.4		ug/L		95	51 - 171
Vinyl chloride	30.0	35.6		ug/L		119	66 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		70 - 119
Dibromofluoromethane	102		83 - 123
Toluene-d8 (Surr)	102		78 - 126

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

Lab Sample ID: LCSD 640-105804/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105804

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	29.5		ug/L		98	58 - 151	0	24
Bromoform	30.0	35.2		ug/L		117	62 - 140	4	25
Bromomethane	30.0	49.9		ug/L		166	22 - 179	9	44
Carbon tetrachloride	30.0	36.5		ug/L		122	53 - 134	2	19
Chlorobenzene	30.0	28.8		ug/L		96	63 - 132	0	20
Chloroethane	30.0	29.4		ug/L		98	53 - 144	6	38
Chloroform	30.0	30.0		ug/L		100	60 - 126	3	30
Chloromethane	30.0	33.0		ug/L		110	62 - 130	4	34
cis-1,2-Dichloroethylene	30.0	30.5		ug/L		102	49 - 127	1	29
cis-1,3-Dichloropropene	30.0	32.1		ug/L		107	49 - 141	4	24
Dibromochloromethane	30.0	34.3		ug/L		114	55 - 134	1	24
Dibromomethane	30.0	28.3		ug/L		94	62 - 141	6	21
1,2-Dichlorobenzene	30.0	29.9		ug/L		100	60 - 154	1	22
1,3-Dichlorobenzene	30.0	28.7		ug/L		96	55 - 147	1	21
1,4-Dichlorobenzene	30.0	29.9		ug/L		100	58 - 151	0	21
Dichlorodifluoromethane	30.0	33.0		ug/L		110	28 - 133	7	35
1,1-Dichloroethane	30.0	29.3		ug/L		98	54 - 132	1	30
1,2-Dichloroethane	30.0	28.0		ug/L		93	51 - 167	5	28
1,1-Dichloroethene	30.0	30.3		ug/L		101	43 - 118	2	29
1,2-Dichloropropane	30.0	28.6		ug/L		95	60 - 138	6	20
Methylene Chloride	30.0	29.2		ug/L		97	52 - 132	0	30
1,1,1,2-Tetrachloroethane	30.0	34.9		ug/L		116	60 - 134	0	26
1,1,2,2-Tetrachloroethane	30.0	28.1		ug/L		94	63 - 148	2	22
Tetrachloroethene	30.0	30.5		ug/L		102	48 - 136	2	38
trans-1,2-Dichloroethene	30.0	30.0		ug/L		100	46 - 125	3	32
trans-1,3-Dichloropropene	30.0	33.2		ug/L		111	52 - 140	5	20
1,1,1-Trichloroethane	30.0	33.2		ug/L		111	58 - 136	2	21
1,1,2-Trichloroethane	30.0	29.5		ug/L		98	60 - 140	4	22
Trichloroethene	30.0	29.8		ug/L		99	59 - 129	3	22
Trichlorofluoromethane	30.0	31.4		ug/L		105	62 - 138	11	40
1,2,3-Trichloropropane	30.0	27.3		ug/L		91	51 - 171	4	32
Vinyl chloride	30.0	33.1		ug/L		110	66 - 121	7	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*70 - 119*
Dibromofluoromethane	*101*		*83 - 123*
Toluene-d8 (Surr)	*99*		*78 - 126*

Lab Sample ID: 640-45619-19 MS — **Client Sample ID: OW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	<20		1000	727		ug/L		73	70 - 139
Bromoform	<20		1000	784		ug/L		78	49 - 150
Bromomethane	<20	*	1000	712		ug/L		71	23 - 140
Carbon tetrachloride	<20		1000	795		ug/L		80	50 - 162
Chlorobenzene	<20		1000	721		ug/L		72	70 - 125

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

Lab Sample ID: 640-45619-19 MS — **Client Sample ID: OW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	<20		1000	1000		ug/L		100	43 - 165
Chloroform	<20		1000	749		ug/L		75	70 - 124
Chloromethane	<20		1000	1100		ug/L		110	56 - 137
cis-1,2-Dichloroethylene	1300		1000	1720	F	ug/L		44	70 - 122
cis-1,3-Dichloropropene	<20		1000	765		ug/L		76	46 - 131
Dibromochloromethane	<20		1000	769		ug/L		77	58 - 131
Dibromomethane	<20		1000	772		ug/L		77	63 - 131
1,2-Dichlorobenzene	<20		1000	802		ug/L		80	70 - 142
1,3-Dichlorobenzene	<20		1000	695	F	ug/L		69	70 - 137
1,4-Dichlorobenzene	<20		1000	807		ug/L		81	70 - 137
Dichlorodifluoromethane	<20		1000	966		ug/L		97	37 - 139
1,1-Dichloroethane	<20		1000	743		ug/L		74	70 - 126
1,2-Dichloroethane	<20		1000	759		ug/L		76	65 - 150
1,1-Dichloroethene	17	J	1000	779		ug/L		76	60 - 127
1,2-Dichloropropane	<20		1000	726		ug/L		73	66 - 135
Methylene Chloride	<100		1000	727		ug/L		73	61 - 134
1,1,1,2-Tetrachloroethane	<20		1000	723		ug/L		72	59 - 140
1,1,2,2-Tetrachloroethane	<20		1000	746		ug/L		75	41 - 149
Tetrachloroethene	<20		1000	713		ug/L		71	62 - 128
trans-1,2-Dichloroethene	230		1000	946		ug/L		72	64 - 127
trans-1,3-Dichloropropene	<20		1000	770		ug/L		77	40 - 137
1,1,1-Trichloroethane	<20		1000	803		ug/L		80	61 - 152
1,1,2-Trichloroethane	<20		1000	804		ug/L		80	60 - 132
Trichloroethene	980		1000	1480	F	ug/L		50	70 - 131
Trichlorofluoromethane	<20		1000	999		ug/L		100	60 - 157
1,2,3-Trichloropropane	<20		1000	672		ug/L		67	35 - 164
Vinyl chloride	11	J	1000	1000		ug/L		99	63 - 126

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*70 - 119*
Dibromofluoromethane	*101*		*83 - 123*
Toluene-d8 (Surr)	*100*		*78 - 126*

Lab Sample ID: 640-45619-19 MSD — **Client Sample ID: OW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	<20		1000	843		ug/L		84	70 - 139	15	19
Bromoform	<20		1000	928		ug/L		93	49 - 150	17	20
Bromomethane	<20	*	1000	1080		ug/L		108	23 - 140	41	41
Carbon tetrachloride	<20		1000	1010		ug/L		101	50 - 162	24	28
Chlorobenzene	<20		1000	850		ug/L		85	70 - 125	16	23
Chloroethane	<20		1000	945		ug/L		95	43 - 165	6	45
Chloroform	<20		1000	898		ug/L		90	70 - 124	18	21
Chloromethane	<20		1000	1200		ug/L		120	56 - 137	8	16
cis-1,2-Dichloroethylene	1300		1000	2030		ug/L		75	70 - 122	17	22
cis-1,3-Dichloropropene	<20		1000	891		ug/L		89	46 - 131	15	25

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

Lab Sample ID: 640-45619-19 MSD — **Client Sample ID: OW-101**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	<20		1000	922		ug/L		92	58 - 131	18	18
Dibromomethane	<20		1000	871		ug/L		87	63 - 131	12	21
1,2-Dichlorobenzene	<20		1000	942		ug/L		94	70 - 142	16	24
1,3-Dichlorobenzene	<20		1000	830		ug/L		83	70 - 137	18	24
1,4-Dichlorobenzene	<20		1000	941		ug/L		94	70 - 137	15	25
Dichlorodifluoromethane	<20		1000	1080		ug/L		108	37 - 139	11	31
1,1-Dichloroethane	<20		1000	837		ug/L		84	70 - 126	12	29
1,2-Dichloroethane	<20		1000	875		ug/L		88	65 - 150	14	19
1,1-Dichloroethene	17	J	1000	910		ug/L		89	60 - 127	15	33
1,2-Dichloropropane	<20		1000	858		ug/L		86	66 - 135	17	22
Methylene Chloride	<100		1000	887		ug/L		89	61 - 134	20	21
1,1,1,2-Tetrachloroethane	<20		1000	943	F	ug/L		94	59 - 140	26	22
1,1,2,2-Tetrachloroethane	<20		1000	840		ug/L		84	41 - 149	12	23
Tetrachloroethene	<20		1000	883		ug/L		88	62 - 128	21	26
trans-1,2-Dichloroethene	230		1000	1120		ug/L		89	64 - 127	17	21
trans-1,3-Dichloropropene	<20		1000	901		ug/L		90	40 - 137	16	25
1,1,1-Trichloroethane	<20		1000	928		ug/L		93	61 - 152	14	21
1,1,2-Trichloroethane	<20		1000	868		ug/L		87	60 - 132	8	22
Trichloroethene	980		1000	1720		ug/L		74	70 - 131	15	28
Trichlorofluoromethane	<20		1000	1140		ug/L		114	60 - 157	13	20
1,2,3-Trichloropropane	<20		1000	884	F	ug/L		88	35 - 164	27	24
Vinyl chloride	11	J	1000	1130		ug/L		111	63 - 126	11	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*70 - 119*
Dibromofluoromethane	*101*		*83 - 123*
Toluene-d8 (Surr)	*101*		*78 - 126*

Lab Sample ID: MB 640-105821/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105821

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/09/13 18:16	1
Bromoform	<1.0		1.0	0.18	ug/L			11/09/13 18:16	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/09/13 18:16	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/09/13 18:16	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/09/13 18:16	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/09/13 18:16	1
Chloroform	<1.0		1.0	0.12	ug/L			11/09/13 18:16	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/09/13 18:16	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/09/13 18:16	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 18:16	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/09/13 18:16	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/09/13 18:16	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/09/13 18:16	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/09/13 18:16	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/09/13 18:16	1

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

Lab Sample ID: MB 640-105821/5
Matrix: Water
Analysis Batch: 105821

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/09/13 18:16	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 18:16	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/09/13 18:16	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/09/13 18:16	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/09/13 18:16	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/09/13 18:16	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/09/13 18:16	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/09/13 18:16	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/09/13 18:16	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/09/13 18:16	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/09/13 18:16	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/09/13 18:16	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/09/13 18:16	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/09/13 18:16	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/09/13 18:16	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/09/13 18:16	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/09/13 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*70 - 119*		*11/09/13 18:16*	*1*
Dibromofluoromethane	*98*		*83 - 123*		*11/09/13 18:16*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/09/13 18:16*	*1*

Lab Sample ID: LCS 640-105821/3
Matrix: Water
Analysis Batch: 105821

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	31.4		ug/L		105	58 - 151
Bromoform	30.0	38.7		ug/L		129	62 - 140
Bromomethane	30.0	21.6		ug/L		72	22 - 179
Carbon tetrachloride	30.0	35.5		ug/L		118	53 - 134
Chlorobenzene	30.0	31.2		ug/L		104	63 - 132
Chloroethane	30.0	30.7		ug/L		102	53 - 144
Chloroform	30.0	31.9		ug/L		106	60 - 126
Chloromethane	30.0	29.0		ug/L		97	62 - 130
cis-1,2-Dichloroethylene	30.0	32.1		ug/L		107	49 - 127
cis-1,3-Dichloropropene	30.0	33.8		ug/L		113	49 - 141
Dibromochloromethane	30.0	35.8		ug/L		119	55 - 134
Dibromomethane	30.0	31.0		ug/L		103	62 - 141
1,2-Dichlorobenzene	30.0	30.9		ug/L		103	60 - 154
1,3-Dichlorobenzene	30.0	31.7		ug/L		106	55 - 147
1,4-Dichlorobenzene	30.0	31.3		ug/L		104	58 - 151
Dichlorodifluoromethane	30.0	29.3		ug/L		98	28 - 133
1,1-Dichloroethane	30.0	32.2		ug/L		107	54 - 132
1,2-Dichloroethane	30.0	29.4		ug/L		98	51 - 167
1,1-Dichloroethene	30.0	33.9		ug/L		113	43 - 118
1,2-Dichloropropane	30.0	31.0		ug/L		103	60 - 138

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

Lab Sample ID: LCS 640-105821/3
Matrix: Water
Analysis Batch: 105821

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	30.0	31.0		ug/L		103	52 - 132
1,1,1,2-Tetrachloroethane	30.0	34.1		ug/L		114	60 - 134
1,1,2,2-Tetrachloroethane	30.0	32.4		ug/L		108	63 - 148
Tetrachloroethene	30.0	32.2		ug/L		107	48 - 136
trans-1,2-Dichloroethene	30.0	33.3		ug/L		111	46 - 125
trans-1,3-Dichloropropene	30.0	35.2		ug/L		117	52 - 140
1,1,1-Trichloroethane	30.0	32.6		ug/L		109	58 - 136
1,1,2-Trichloroethane	30.0	31.6		ug/L		105	60 - 140
Trichloroethene	30.0	30.7		ug/L		102	59 - 129
Trichlorofluoromethane	30.0	35.4		ug/L		118	62 - 138
1,2,3-Trichloropropane	30.0	30.1		ug/L		100	51 - 171
Vinyl chloride	30.0	31.4		ug/L		105	66 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*70 - 119*
Dibromofluoromethane	*101*		*83 - 123*
Toluene-d8 (Surr)	*102*		*78 - 126*

Lab Sample ID: LCSD 640-105821/4
Matrix: Water
Analysis Batch: 105821

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	29.4		ug/L		98	58 - 151	7	24
Bromoform	30.0	34.5		ug/L		115	62 - 140	12	25
Bromomethane	30.0	23.0		ug/L		77	22 - 179	7	44
Carbon tetrachloride	30.0	32.4		ug/L		108	53 - 134	9	19
Chlorobenzene	30.0	29.6		ug/L		99	63 - 132	6	20
Chloroethane	30.0	28.7		ug/L		96	53 - 144	7	38
Chloroform	30.0	30.1		ug/L		100	60 - 126	6	30
Chloromethane	30.0	27.5		ug/L		92	62 - 130	6	34
cis-1,2-Dichloroethylene	30.0	30.0		ug/L		100	49 - 127	7	29
cis-1,3-Dichloropropene	30.0	30.3		ug/L		101	49 - 141	11	24
Dibromochloromethane	30.0	32.2		ug/L		107	55 - 134	11	24
Dibromomethane	30.0	28.4		ug/L		95	62 - 141	9	21
1,2-Dichlorobenzene	30.0	28.6		ug/L		95	60 - 154	8	22
1,3-Dichlorobenzene	30.0	29.0		ug/L		97	55 - 147	9	21
1,4-Dichlorobenzene	30.0	29.0		ug/L		97	58 - 151	8	21
Dichlorodifluoromethane	30.0	25.7		ug/L		86	28 - 133	13	35
1,1-Dichloroethane	30.0	30.6		ug/L		102	54 - 132	5	30
1,2-Dichloroethane	30.0	27.9		ug/L		93	51 - 167	5	28
1,1-Dichloroethene	30.0	32.0		ug/L		107	43 - 118	6	29
1,2-Dichloropropane	30.0	28.2		ug/L		94	60 - 138	10	20
Methylene Chloride	30.0	29.9		ug/L		100	52 - 132	4	30
1,1,1,2-Tetrachloroethane	30.0	31.0		ug/L		103	60 - 134	10	26
1,1,2,2-Tetrachloroethane	30.0	28.4		ug/L		95	63 - 148	13	22
Tetrachloroethene	30.0	29.3		ug/L		98	48 - 136	10	38
trans-1,2-Dichloroethene	30.0	30.8		ug/L		103	46 - 125	8	32

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

Lab Sample ID: LCSD 640-105821/4
Matrix: Water
Analysis Batch: 105821

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,3-Dichloropropene			30.0	32.3		ug/L		108	52 - 140	9	20
1,1,1-Trichloroethane			30.0	30.2		ug/L		101	58 - 136	8	21
1,1,2-Trichloroethane			30.0	28.8		ug/L		96	60 - 140	9	22
Trichloroethene			30.0	29.2		ug/L		97	59 - 129	5	22
Trichlorofluoromethane			30.0	32.0		ug/L		107	62 - 138	10	40
1,2,3-Trichloropropane			30.0	28.4		ug/L		95	51 - 171	6	32
Vinyl chloride			30.0	28.6		ug/L		95	66 - 121	9	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*70 - 119*
Dibromofluoromethane	*100*		*83 - 123*
Toluene-d8 (Surr)	*102*		*78 - 126*

Lab Sample ID: 640-45619-B-10 MS
Matrix: Water
Analysis Batch: 105821

Client Sample ID: 640-45619-B-10 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromobenzene	<10		200	178		ug/L		89	70 - 139		
Bromoform	<10		200	202		ug/L		101	49 - 150		
Bromomethane	<10		200	123		ug/L		62	23 - 140		
Carbon tetrachloride	<10		200	227		ug/L		114	50 - 162		
Chlorobenzene	<10		200	177		ug/L		88	70 - 125		
Chloroethane	<10		200	156		ug/L		78	43 - 165		
Chloroform	<10		200	166		ug/L		83	70 - 124		
Chloromethane	<10		200	138		ug/L		69	56 - 137		
cis-1,2-Dichloroethylene	51		200	187	F	ug/L		68	70 - 122		
cis-1,3-Dichloropropene	<10		200	180		ug/L		90	46 - 131		
Dibromochloromethane	<10		200	199		ug/L		100	58 - 131		
Dibromomethane	<10		200	187		ug/L		94	63 - 131		
1,2-Dichlorobenzene	<10		200	173		ug/L		86	70 - 142		
1,3-Dichlorobenzene	<10		200	177		ug/L		89	70 - 137		
1,4-Dichlorobenzene	<10		200	173		ug/L		87	70 - 137		
Dichlorodifluoromethane	<10		200	169		ug/L		84	37 - 139		
1,1-Dichloroethane	<10		200	166		ug/L		83	70 - 126		
1,2-Dichloroethane	<10		200	213		ug/L		106	65 - 150		
1,1-Dichloroethene	<10		200	177		ug/L		88	60 - 127		
1,2-Dichloropropane	<10		200	182		ug/L		91	66 - 135		
Methylene Chloride	<50		200	150		ug/L		75	61 - 134		
1,1,1,2-Tetrachloroethane	<10		200	191		ug/L		95	59 - 140		
1,1,2,2-Tetrachloroethane	<10		200	183		ug/L		91	41 - 149		
Tetrachloroethene	<10		200	180		ug/L		90	62 - 128		
trans-1,2-Dichloroethene	<10		200	154		ug/L		77	64 - 127		
trans-1,3-Dichloropropene	<10		200	193		ug/L		96	40 - 137		
1,1,1-Trichloroethane	<10		200	211		ug/L		105	61 - 152		
1,1,2-Trichloroethane	<10		200	190		ug/L		95	60 - 132		
Trichloroethene	<10		200	191		ug/L		95	70 - 131		
Trichlorofluoromethane	<10		200	197		ug/L		98	60 - 157		

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

Lab Sample ID: 640-45619-B-10 MS
Matrix: Water
Analysis Batch: 105821

Client Sample ID: 640-45619-B-10 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	<10		200	177		ug/L		88	35 - 164
Vinyl chloride	<10		200	162		ug/L		81	63 - 126

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*70 - 119*
Dibromofluoromethane	*88*		*83 - 123*
Toluene-d8 (Surr)	*107*		*78 - 126*

Lab Sample ID: 640-45619-B-10 MSD
Matrix: Water
Analysis Batch: 105821

Client Sample ID: 640-45619-B-10 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	<10		200	190		ug/L		95	70 - 139	7	19
Bromoform	<10		200	222		ug/L		111	49 - 150	9	20
Bromomethane	<10		200	131		ug/L		66	23 - 140	6	41
Carbon tetrachloride	<10		200	219		ug/L		110	50 - 162	4	28
Chlorobenzene	<10		200	189		ug/L		95	70 - 125	7	23
Chloroethane	<10		200	180		ug/L		90	43 - 165	14	45
Chloroform	<10		200	175		ug/L		87	70 - 124	5	21
Chloromethane	<10		200	159		ug/L		79	56 - 137	14	16
cis-1,2-Dichloroethylene	51		200	192		ug/L		71	70 - 122	3	22
cis-1,3-Dichloropropene	<10		200	186		ug/L		93	46 - 131	3	25
Dibromochloromethane	<10		200	215		ug/L		107	58 - 131	7	18
Dibromomethane	<10		200	200		ug/L		100	63 - 131	7	21
1,2-Dichlorobenzene	<10		200	193		ug/L		97	70 - 142	11	24
1,3-Dichlorobenzene	<10		200	189		ug/L		94	70 - 137	6	24
1,4-Dichlorobenzene	<10		200	189		ug/L		94	70 - 137	9	25
Dichlorodifluoromethane	<10		200	160		ug/L		80	37 - 139	6	31
1,1-Dichloroethane	<10		200	169		ug/L		84	70 - 126	2	29
1,2-Dichloroethane	<10		200	222		ug/L		111	65 - 150	4	19
1,1-Dichloroethene	<10		200	177		ug/L		88	60 - 127	0	33
1,2-Dichloropropane	<10		200	184		ug/L		92	66 - 135	1	22
Methylene Chloride	<50		200	159		ug/L		80	61 - 134	6	21
1,1,1,2-Tetrachloroethane	<10		200	204		ug/L		102	59 - 140	7	22
1,1,2,2-Tetrachloroethane	<10		200	208		ug/L		104	41 - 149	13	23
Tetrachloroethene	<10		200	190		ug/L		95	62 - 128	5	26
trans-1,2-Dichloroethene	<10		200	163		ug/L		82	64 - 127	5	21
trans-1,3-Dichloropropene	<10		200	202		ug/L		101	40 - 137	5	25
1,1,1-Trichloroethane	<10		200	209		ug/L		104	61 - 152	1	21
1,1,2-Trichloroethane	<10		200	194		ug/L		97	60 - 132	2	22
Trichloroethene	<10		200	192		ug/L		96	70 - 131	1	28
Trichlorofluoromethane	<10		200	195		ug/L		97	60 - 157	1	20
1,2,3-Trichloropropane	<10		200	211		ug/L		106	35 - 164	18	24
Vinyl chloride	<10		200	171		ug/L		85	63 - 126	5	23

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

Lab Sample ID: 640-45619-B-10 MSD
Matrix: Water
Analysis Batch: 105821

Client Sample ID: 640-45619-B-10 MSD
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	105		70 - 119
Dibromofluoromethane	89		83 - 123
Toluene-d8 (Surr)	103		78 - 126

Lab Sample ID: MB 640-105826/4
Matrix: Water
Analysis Batch: 105826

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/10/13 16:33	1
Bromoform	<1.0		1.0	0.18	ug/L			11/10/13 16:33	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/10/13 16:33	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/10/13 16:33	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/10/13 16:33	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/10/13 16:33	1
Chloroform	<1.0		1.0	0.12	ug/L			11/10/13 16:33	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/10/13 16:33	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/10/13 16:33	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 16:33	1
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/10/13 16:33	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/10/13 16:33	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/10/13 16:33	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/10/13 16:33	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/10/13 16:33	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/10/13 16:33	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 16:33	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/10/13 16:33	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/10/13 16:33	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/10/13 16:33	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/10/13 16:33	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/10/13 16:33	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/10/13 16:33	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/10/13 16:33	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/10/13 16:33	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/10/13 16:33	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/10/13 16:33	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/10/13 16:33	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/10/13 16:33	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/10/13 16:33	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/10/13 16:33	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/10/13 16:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		70 - 119		11/10/13 16:33	1
Dibromofluoromethane	86		83 - 123		11/10/13 16:33	1
Toluene-d8 (Surr)	105		78 - 126		11/10/13 16:33	1

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

Lab Sample ID: LCS 640-105826/2
Matrix: Water
Analysis Batch: 105826

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	31.4		ug/L		105	58 - 151
Bromoform	30.0	39.0		ug/L		130	62 - 140
Bromomethane	30.0	25.8		ug/L		86	22 - 179
Carbon tetrachloride	30.0	39.5		ug/L		132	53 - 134
Chlorobenzene	30.0	30.7		ug/L		102	63 - 132
Chloroethane	30.0	29.5		ug/L		98	53 - 144
Chloroform	30.0	28.8		ug/L		96	60 - 126
Chloromethane	30.0	29.3		ug/L		98	62 - 130
cis-1,2-Dichloroethylene	30.0	26.7		ug/L		89	49 - 127
cis-1,3-Dichloropropene	30.0	34.1		ug/L		114	49 - 141
Dibromochloromethane	30.0	36.5		ug/L		122	55 - 134
Dibromomethane	30.0	31.9		ug/L		106	62 - 141
1,2-Dichlorobenzene	30.0	30.7		ug/L		102	60 - 154
1,3-Dichlorobenzene	30.0	31.4		ug/L		105	55 - 147
1,4-Dichlorobenzene	30.0	31.0		ug/L		103	58 - 151
Dichlorodifluoromethane	30.0	32.1		ug/L		107	28 - 133
1,1-Dichloroethane	30.0	28.4		ug/L		95	54 - 132
1,2-Dichloroethane	30.0	35.7		ug/L		119	51 - 167
1,1-Dichloroethene	30.0	30.9		ug/L		103	43 - 118
1,2-Dichloropropane	30.0	30.5		ug/L		102	60 - 138
Methylene Chloride	30.0	25.7		ug/L		86	52 - 132
1,1,1,2-Tetrachloroethane	30.0	35.4		ug/L		118	60 - 134
1,1,2,2-Tetrachloroethane	30.0	32.6		ug/L		109	63 - 148
Tetrachloroethene	30.0	31.3		ug/L		104	48 - 136
trans-1,2-Dichloroethene	30.0	27.2		ug/L		91	46 - 125
trans-1,3-Dichloropropene	30.0	37.8		ug/L		126	52 - 140
1,1,1-Trichloroethane	30.0	36.2		ug/L		121	58 - 136
1,1,2-Trichloroethane	30.0	32.2		ug/L		107	60 - 140
Trichloroethene	30.0	32.6		ug/L		109	59 - 129
Trichlorofluoromethane	30.0	34.1		ug/L		114	62 - 138
1,2,3-Trichloropropane	30.0	32.0		ug/L		107	51 - 171
Vinyl chloride	30.0	30.6		ug/L		102	66 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*70 - 119*
Dibromofluoromethane	*86*		*83 - 123*
Toluene-d8 (Surr)	*103*		*78 - 126*

Lab Sample ID: LCSD 640-105826/3
Matrix: Water
Analysis Batch: 105826

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	29.9		ug/L		100	58 - 151	5	24
Bromoform	30.0	38.5		ug/L		128	62 - 140	1	25
Bromomethane	30.0	25.1		ug/L		84	22 - 179	3	44
Carbon tetrachloride	30.0	38.1		ug/L		127	53 - 134	4	19
Chlorobenzene	30.0	29.7		ug/L		99	63 - 132	3	20

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

Lab Sample ID: LCSD 640-105826/3
Matrix: Water
Analysis Batch: 105826

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	30.0	26.8		ug/L		89	53 - 144	9	38
Chloroform	30.0	27.6		ug/L		92	60 - 126	4	30
Chloromethane	30.0	27.1		ug/L		90	62 - 130	8	34
cis-1,2-Dichloroethylene	30.0	25.8		ug/L		86	49 - 127	3	29
cis-1,3-Dichloropropene	30.0	32.6		ug/L		109	49 - 141	5	24
Dibromochloromethane	30.0	34.9		ug/L		116	55 - 134	4	24
Dibromomethane	30.0	29.9		ug/L		100	62 - 141	6	21
1,2-Dichlorobenzene	30.0	30.1		ug/L		100	60 - 154	2	22
1,3-Dichlorobenzene	30.0	30.4		ug/L		101	55 - 147	3	21
1,4-Dichlorobenzene	30.0	30.4		ug/L		101	58 - 151	2	21
Dichlorodifluoromethane	30.0	30.0		ug/L		100	28 - 133	7	35
1,1-Dichloroethane	30.0	26.9		ug/L		90	54 - 132	6	30
1,2-Dichloroethane	30.0	33.6		ug/L		112	51 - 167	6	28
1,1-Dichloroethene	30.0	29.1		ug/L		97	43 - 118	6	29
1,2-Dichloropropane	30.0	29.8		ug/L		99	60 - 138	2	20
Methylene Chloride	30.0	25.0		ug/L		83	52 - 132	3	30
1,1,1,2-Tetrachloroethane	30.0	34.2		ug/L		114	60 - 134	4	26
1,1,2,2-Tetrachloroethane	30.0	31.1		ug/L		104	63 - 148	5	22
Tetrachloroethene	30.0	30.7		ug/L		102	48 - 136	2	38
trans-1,2-Dichloroethene	30.0	25.9		ug/L		86	46 - 125	5	32
trans-1,3-Dichloropropene	30.0	35.8		ug/L		119	52 - 140	5	20
1,1,1-Trichloroethane	30.0	34.1		ug/L		114	58 - 136	6	21
1,1,2-Trichloroethane	30.0	31.3		ug/L		104	60 - 140	3	22
Trichloroethene	30.0	30.5		ug/L		102	59 - 129	7	22
Trichlorofluoromethane	30.0	31.4		ug/L		105	62 - 138	8	40
1,2,3-Trichloropropane	30.0	32.4		ug/L		108	51 - 171	1	32
Vinyl chloride	30.0	27.8		ug/L		93	66 - 121	10	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*70 - 119*
Dibromofluoromethane	*88*		*83 - 123*
Toluene-d8 (Surr)	*102*		*78 - 126*

Lab Sample ID: MB 640-105831/4
Matrix: Water
Analysis Batch: 105831

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	<1.0		1.0	0.44	ug/L			11/11/13 14:09	1
Bromoform	<1.0		1.0	0.18	ug/L			11/11/13 14:09	1
Bromomethane	<1.0		1.0	0.51	ug/L			11/11/13 14:09	1
Carbon tetrachloride	<1.0		1.0	0.18	ug/L			11/11/13 14:09	1
Chlorobenzene	<1.0		1.0	0.13	ug/L			11/11/13 14:09	1
Chloroethane	<1.0		1.0	0.33	ug/L			11/11/13 14:09	1
Chloroform	<1.0		1.0	0.12	ug/L			11/11/13 14:09	1
Chloromethane	<1.0		1.0	0.18	ug/L			11/11/13 14:09	1
cis-1,2-Dichloroethylene	<1.0		1.0	0.21	ug/L			11/11/13 14:09	1
cis-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/11/13 14:09	1

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

Lab Sample ID: MB 640-105831/4
Matrix: Water
Analysis Batch: 105831

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	<1.0		1.0	0.15	ug/L			11/11/13 14:09	1
Dibromomethane	<1.0		1.0	0.20	ug/L			11/11/13 14:09	1
1,2-Dichlorobenzene	<1.0		1.0	0.14	ug/L			11/11/13 14:09	1
1,3-Dichlorobenzene	<1.0		1.0	0.17	ug/L			11/11/13 14:09	1
1,4-Dichlorobenzene	<1.0		1.0	0.20	ug/L			11/11/13 14:09	1
Dichlorodifluoromethane	<1.0		1.0	0.28	ug/L			11/11/13 14:09	1
1,1-Dichloroethane	<1.0		1.0	0.20	ug/L			11/11/13 14:09	1
1,2-Dichloroethane	<1.0		1.0	0.15	ug/L			11/11/13 14:09	1
1,1-Dichloroethene	<1.0		1.0	0.23	ug/L			11/11/13 14:09	1
1,2-Dichloropropane	<1.0		1.0	0.17	ug/L			11/11/13 14:09	1
Methylene Chloride	<5.0		5.0	0.21	ug/L			11/11/13 14:09	1
1,1,1,2-Tetrachloroethane	<1.0		1.0	0.14	ug/L			11/11/13 14:09	1
1,1,2,2-Tetrachloroethane	<1.0		1.0	0.11	ug/L			11/11/13 14:09	1
Tetrachloroethene	<1.0		1.0	0.19	ug/L			11/11/13 14:09	1
trans-1,2-Dichloroethene	<1.0		1.0	0.26	ug/L			11/11/13 14:09	1
trans-1,3-Dichloropropene	<1.0		1.0	0.14	ug/L			11/11/13 14:09	1
1,1,1-Trichloroethane	<1.0		1.0	0.16	ug/L			11/11/13 14:09	1
1,1,2-Trichloroethane	<1.0		1.0	0.20	ug/L			11/11/13 14:09	1
Trichloroethene	<1.0		1.0	0.16	ug/L			11/11/13 14:09	1
Trichlorofluoromethane	<1.0		1.0	0.21	ug/L			11/11/13 14:09	1
1,2,3-Trichloropropane	<1.0		1.0	0.23	ug/L			11/11/13 14:09	1
Vinyl chloride	<1.0		1.0	0.22	ug/L			11/11/13 14:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*70 - 119*		*11/11/13 14:09*	*1*
Dibromofluoromethane	*100*		*83 - 123*		*11/11/13 14:09*	*1*
Toluene-d8 (Surr)	*100*		*78 - 126*		*11/11/13 14:09*	*1*

Lab Sample ID: LCS 640-105831/3
Matrix: Water
Analysis Batch: 105831

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	30.0	26.7		ug/L		89	58 - 151
Bromoform	30.0	36.3		ug/L		121	62 - 140
Bromomethane	30.0	47.4		ug/L		158	22 - 179
Carbon tetrachloride	30.0	35.4		ug/L		118	53 - 134
Chlorobenzene	30.0	26.6		ug/L		89	63 - 132
Chloroethane	30.0	28.3		ug/L		94	53 - 144
Chloroform	30.0	26.4		ug/L		88	60 - 126
Chloromethane	30.0	30.0		ug/L		100	62 - 130
cis-1,2-Dichloroethylene	30.0	27.7		ug/L		92	49 - 127
cis-1,3-Dichloropropene	30.0	30.0		ug/L		100	49 - 141
Dibromochloromethane	30.0	32.9		ug/L		110	55 - 134
Dibromomethane	30.0	26.3		ug/L		88	62 - 141
1,2-Dichlorobenzene	30.0	27.3		ug/L		91	60 - 154
1,3-Dichlorobenzene	30.0	26.4		ug/L		88	55 - 147
1,4-Dichlorobenzene	30.0	28.0		ug/L		93	58 - 151

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

Lab Sample ID: LCS 640-105831/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	30.0	32.8		ug/L		109	28 - 133
1,1-Dichloroethane	30.0	25.4		ug/L		85	54 - 132
1,2-Dichloroethane	30.0	25.9		ug/L		86	51 - 167
1,1-Dichloroethene	30.0	27.2		ug/L		91	43 - 118
1,2-Dichloropropane	30.0	27.0		ug/L		90	60 - 138
Methylene Chloride	30.0	25.9		ug/L		86	52 - 132
1,1,1,2-Tetrachloroethane	30.0	34.1		ug/L		114	60 - 134
1,1,2,2-Tetrachloroethane	30.0	25.8		ug/L		86	63 - 148
Tetrachloroethene	30.0	28.3		ug/L		94	48 - 136
trans-1,2-Dichloroethene	30.0	27.0		ug/L		90	46 - 125
trans-1,3-Dichloropropene	30.0	31.2		ug/L		104	52 - 140
1,1,1-Trichloroethane	30.0	30.5		ug/L		102	58 - 136
1,1,2-Trichloroethane	30.0	26.4		ug/L		88	60 - 140
Trichloroethene	30.0	26.5		ug/L		88	59 - 129
Trichlorofluoromethane	30.0	31.4		ug/L		105	62 - 138
1,2,3-Trichloropropane	30.0	25.0		ug/L		83	51 - 171
Vinyl chloride	30.0	31.9		ug/L		106	66 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*70 - 119*
Dibromofluoromethane	*101*		*83 - 123*
Toluene-d8 (Surr)	*99*		*78 - 126*

Lab Sample ID: LCSD 640-105831/25 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105831

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	30.0	26.4		ug/L		88	58 - 151	1	24
Bromoform	30.0	34.1		ug/L		114	62 - 140	6	25
Bromomethane	30.0	49.9		ug/L		166	22 - 179	5	44
Carbon tetrachloride	30.0	33.5		ug/L		112	53 - 134	5	19
Chlorobenzene	30.0	25.8		ug/L		86	63 - 132	3	20
Chloroethane	30.0	27.9		ug/L		93	53 - 144	1	38
Chloroform	30.0	26.9		ug/L		90	60 - 126	2	30
Chloromethane	30.0	31.0		ug/L		103	62 - 130	3	34
cis-1,2-Dichloroethylene	30.0	26.8		ug/L		89	49 - 127	4	29
cis-1,3-Dichloropropene	30.0	29.6		ug/L		99	49 - 141	1	24
Dibromochloromethane	30.0	30.9		ug/L		103	55 - 134	6	24
Dibromomethane	30.0	26.1		ug/L		87	62 - 141	1	21
1,2-Dichlorobenzene	30.0	27.8		ug/L		93	60 - 154	2	22
1,3-Dichlorobenzene	30.0	26.5		ug/L		88	55 - 147	0	21
1,4-Dichlorobenzene	30.0	28.1		ug/L		94	58 - 151	0	21
Dichlorodifluoromethane	30.0	33.3		ug/L		111	28 - 133	2	35
1,1-Dichloroethane	30.0	26.2		ug/L		87	54 - 132	3	30
1,2-Dichloroethane	30.0	25.2		ug/L		84	51 - 167	3	28
1,1-Dichloroethene	30.0	26.9		ug/L		90	43 - 118	1	29
1,2-Dichloropropane	30.0	26.2		ug/L		87	60 - 138	3	20

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

Lab Sample ID: LCSD 640-105831/25
Matrix: Water
Analysis Batch: 105831

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	30.0	25.7		ug/L		86	52 - 132	1	30
1,1,1,2-Tetrachloroethane	30.0	32.3		ug/L		108	60 - 134	5	26
1,1,2,2-Tetrachloroethane	30.0	25.2		ug/L		84	63 - 148	3	22
Tetrachloroethene	30.0	27.9		ug/L		93	48 - 136	2	38
trans-1,2-Dichloroethene	30.0	27.6		ug/L		92	46 - 125	2	32
trans-1,3-Dichloropropene	30.0	31.1		ug/L		104	52 - 140	0	20
1,1,1-Trichloroethane	30.0	30.3		ug/L		101	58 - 136	1	21
1,1,2-Trichloroethane	30.0	26.2		ug/L		87	60 - 140	1	22
Trichloroethene	30.0	26.1		ug/L		87	59 - 129	1	22
Trichlorofluoromethane	30.0	32.0		ug/L		107	62 - 138	2	40
1,2,3-Trichloropropane	30.0	25.6		ug/L		85	51 - 171	3	32
Vinyl chloride	30.0	32.1		ug/L		107	66 - 121	0	31

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*70 - 119*
Dibromofluoromethane	*104*		*83 - 123*
Toluene-d8 (Surr)	*100*		*78 - 126*

Lab Sample ID: 640-45642-7 MS
Matrix: Water
Analysis Batch: 105831

Client Sample ID: OW-304R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	<20		1000	770		ug/L		77	70 - 139
Bromoform	<20		1000	870		ug/L		87	49 - 150
Bromomethane	<20		1000	925		ug/L		92	23 - 140
Carbon tetrachloride	<20		1000	892		ug/L		89	50 - 162
Chlorobenzene	<20		1000	777		ug/L		78	70 - 125
Chloroethane	<20		1000	1130		ug/L		113	43 - 165
Chloroform	<20		1000	809		ug/L		81	70 - 124
Chloromethane	<20		1000	1050		ug/L		105	56 - 137
cis-1,2-Dichloroethylene	340		1000	1070		ug/L		72	70 - 122
cis-1,3-Dichloropropene	<20		1000	791		ug/L		79	46 - 131
Dibromochloromethane	<20		1000	905		ug/L		91	58 - 131
Dibromomethane	<20		1000	797		ug/L		80	63 - 131
1,2-Dichlorobenzene	<20		1000	864		ug/L		86	70 - 142
1,3-Dichlorobenzene	<20		1000	761		ug/L		76	70 - 137
1,4-Dichlorobenzene	<20		1000	860		ug/L		86	70 - 137
Dichlorodifluoromethane	<20		1000	962		ug/L		96	37 - 139
1,1-Dichloroethane	<20		1000	790		ug/L		79	70 - 126
1,2-Dichloroethane	<20		1000	788		ug/L		79	65 - 150
1,1-Dichloroethene	<20		1000	786		ug/L		79	60 - 127
1,2-Dichloropropane	<20		1000	774		ug/L		77	66 - 135
Methylene Chloride	<100		1000	808		ug/L		81	61 - 134
1,1,1,2-Tetrachloroethane	<20		1000	920		ug/L		92	59 - 140
1,1,2,2-Tetrachloroethane	<20		1000	817		ug/L		82	41 - 149
Tetrachloroethene	<20		1000	804		ug/L		80	62 - 128
trans-1,2-Dichloroethene	<20		1000	809		ug/L		81	64 - 127

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

Lab Sample ID: 640-45642-7 MS — **Client Sample ID: OW-304R**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105831

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	<20		1000	821		ug/L		82	40 - 137
1,1,1-Trichloroethane	<20		1000	856		ug/L		86	61 - 152
1,1,2-Trichloroethane	<20		1000	781		ug/L		78	60 - 132
Trichloroethene	1200		1000	1510	F	ug/L		35	70 - 131
Trichlorofluoromethane	<20		1000	939		ug/L		94	60 - 157
1,2,3-Trichloropropane	<20		1000	788		ug/L		79	35 - 164
Vinyl chloride	54		1000	1090		ug/L		103	63 - 126

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*70 - 119*
Dibromofluoromethane	*104*		*83 - 123*
Toluene-d8 (Surr)	*99*		*78 - 126*

Lab Sample ID: 640-45642-7 MSD — **Client Sample ID: OW-304R**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105831

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	<20		1000	830		ug/L		83	70 - 139	7	19
Bromoform	<20		1000	912		ug/L		91	49 - 150	5	20
Bromomethane	<20		1000	1030		ug/L		103	23 - 140	11	41
Carbon tetrachloride	<20		1000	948		ug/L		95	50 - 162	6	28
Chlorobenzene	<20		1000	831		ug/L		83	70 - 125	7	23
Chloroethane	<20		1000	1090		ug/L		109	43 - 165	3	45
Chloroform	<20		1000	828		ug/L		83	70 - 124	2	21
Chloromethane	<20		1000	1000		ug/L		100	56 - 137	4	16
cis-1,2-Dichloroethylene	340		1000	1130		ug/L		79	70 - 122	6	22
cis-1,3-Dichloropropene	<20		1000	855		ug/L		86	46 - 131	8	25
Dibromochloromethane	<20		1000	968		ug/L		97	58 - 131	7	18
Dibromomethane	<20		1000	839		ug/L		84	63 - 131	5	21
1,2-Dichlorobenzene	<20		1000	925		ug/L		92	70 - 142	7	24
1,3-Dichlorobenzene	<20		1000	819		ug/L		82	70 - 137	7	24
1,4-Dichlorobenzene	<20		1000	920		ug/L		92	70 - 137	7	25
Dichlorodifluoromethane	<20		1000	927		ug/L		93	37 - 139	4	31
1,1-Dichloroethane	<20		1000	800		ug/L		80	70 - 126	1	29
1,2-Dichloroethane	<20		1000	824		ug/L		82	65 - 150	4	19
1,1-Dichloroethene	<20		1000	817		ug/L		82	60 - 127	4	33
1,2-Dichloropropane	<20		1000	827		ug/L		83	66 - 135	7	22
Methylene Chloride	<100		1000	826		ug/L		83	61 - 134	2	21
1,1,1,2-Tetrachloroethane	<20		1000	947		ug/L		95	59 - 140	3	22
1,1,2,2-Tetrachloroethane	<20		1000	857		ug/L		86	41 - 149	5	23
Tetrachloroethene	<20		1000	797		ug/L		80	62 - 128	1	26
trans-1,2-Dichloroethene	<20		1000	829		ug/L		83	64 - 127	2	21
trans-1,3-Dichloropropene	<20		1000	881		ug/L		88	40 - 137	7	25
1,1,1-Trichloroethane	<20		1000	935		ug/L		94	61 - 152	9	21
1,1,2-Trichloroethane	<20		1000	856		ug/L		86	60 - 132	9	22
Trichloroethene	1200		1000	1720	F	ug/L		55	70 - 131	13	28
Trichlorofluoromethane	<20		1000	936		ug/L		94	60 - 157	0	20

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

Lab Sample ID: 640-45642-7 MSD — **Client Sample ID: OW-304R**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105831

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	<20		1000	882		ug/L		88	35 - 164	11	24
Vinyl chloride	54		1000	1040		ug/L		99	63 - 126	4	23

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*70 - 119*
Dibromofluoromethane	*100*		*83 - 123*
Toluene-d8 (Surr)	*98*		*78 - 126*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 400-196716/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 196716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/01/13 10:36	1
Ethane	<1.0		1.0	0.75	ug/L			11/01/13 10:36	1
Ethene	<1.0		1.0	0.55	ug/L			11/01/13 10:36	1

Lab Sample ID: LCS 400-196716/28 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 196716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	169	160		ug/L		94	80 - 120
Ethane	321	299		ug/L		93	80 - 120
Ethene	299	273		ug/L		91	80 - 120

Lab Sample ID: LCSD 400-196716/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 196716

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	169	173		ug/L		102	80 - 120	8	50
Ethane	321	331		ug/L		103	80 - 120	10	50
Ethene	299	326		ug/L		109	80 - 120	18	50

Lab Sample ID: MB 400-197057/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 197057

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/04/13 11:08	1
Ethane	<1.0		1.0	0.75	ug/L			11/04/13 11:08	1
Ethene	<1.0		1.0	0.55	ug/L			11/04/13 11:08	1

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: LCS 400-197057/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 197057

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	169	175		ug/L		103	80 - 120
Ethane	321	317		ug/L		99	80 - 120
Ethene	299	316		ug/L		106	80 - 120

Lab Sample ID: LCSD 400-197057/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 197057

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	169	172		ug/L		101	80 - 120	2	50
Ethane	321	324		ug/L		101	80 - 120	2	50
Ethene	299	308		ug/L		103	80 - 120	3	50

Lab Sample ID: MB 400-197079/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 197079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	<1.0		1.0	0.18	ug/L			11/05/13 10:01	1
Ethane	<1.0		1.0	0.75	ug/L			11/05/13 10:01	1
Ethene	<1.0		1.0	0.55	ug/L			11/05/13 10:01	1

Lab Sample ID: LCS 400-197079/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 197079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	169	180		ug/L		106	80 - 120
Ethane	321	342		ug/L		107	80 - 120
Ethene	299	332		ug/L		111	80 - 120

Lab Sample ID: LCSD 400-197079/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 197079

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	169	182		ug/L		107	80 - 120	1	50
Ethane	321	349		ug/L		109	80 - 120	2	50
Ethene	299	347		ug/L		116	80 - 120	4	50

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-302335/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.50		0.50	0.25	mg/L			11/08/13 10:27	1
Sulfate	<0.50		0.50	0.25	mg/L			11/08/13 10:27	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-302335/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302335

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			10.0	9.73		mg/L		97	90 - 110		
Sulfate			10.0	9.74		mg/L		97	90 - 110		

Lab Sample ID: LCSD 680-302335/8 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302335

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			10.0	9.79		mg/L		98	90 - 110	1	30
Sulfate			10.0	9.81		mg/L		98	90 - 110	1	30

Lab Sample ID: 640-45619-9 MS — **Client Sample ID: OW-301**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302335

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	5.7		10.0	15.6		mg/L		99	80 - 120		
Sulfate	35		10.0	45.0		mg/L		96	80 - 120		

Lab Sample ID: 640-45619-9 MSD — **Client Sample ID: OW-301**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302335

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5.7		10.0	15.5		mg/L		98	80 - 120	0	30
Sulfate	35		10.0	44.8		mg/L		95	80 - 120	0	30

Lab Sample ID: MB 680-302358/32 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302358

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.50		0.50	0.25	mg/L			11/08/13 16:28	1
Sulfate	<0.50		0.50	0.25	mg/L			11/08/13 16:28	1

Lab Sample ID: LCS 680-302358/33 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302358

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			10.0	9.99		mg/L		100	90 - 110		
Sulfate			10.0	10.0		mg/L		100	90 - 110		

Lab Sample ID: LCSD 680-302358/34 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302358

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			10.0	10.0		mg/L		100	90 - 110	0	30

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 680-302358/34 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302358

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			10.0	9.98		mg/L		100	90 - 110	1	30

Lab Sample ID: 640-45642-5 MS — **Client Sample ID: GZ-506R**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302358

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	33		10.0	42.4		mg/L		97	80 - 120		
Sulfate	53		10.0	62.2	E 4	mg/L		95	80 - 120		

Lab Sample ID: 640-45642-5 MSD — **Client Sample ID: GZ-506R**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302358

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	33		10.0	42.4		mg/L		97	80 - 120	0	30
Sulfate	53		10.0	62.2	E 4	mg/L		96	80 - 120	0	30

Lab Sample ID: MB 680-302428/57 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302428

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		0.50	0.25	mg/L			11/08/13 22:15	1

Lab Sample ID: LCS 680-302428/59 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302428

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			10.0	10.1		mg/L		101	90 - 110		

Lab Sample ID: LCSD 680-302428/60 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302428

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			10.0	10.2		mg/L		102	90 - 110	1	30

Lab Sample ID: MB 680-302429/84 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302429

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.50		0.50	0.25	mg/L			11/09/13 04:01	1
Sulfate	<0.50		0.50	0.25	mg/L			11/09/13 04:01	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 680-302429/85 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302429

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.2		mg/L		102	90 - 110
Sulfate	10.0	10.2		mg/L		102	90 - 110

Lab Sample ID: LCSD 680-302429/86 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302429

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.2		mg/L		102	90 - 110	1	30
Sulfate	10.0	10.2		mg/L		102	90 - 110	0	30

Lab Sample ID: MB 680-302480/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<0.50		0.50	0.25	mg/L			11/09/13 14:58	1

Lab Sample ID: LCS 680-302480/7 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 680-302480/8 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 302480

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	10.0	10.0		mg/L		100	90 - 110	0	30

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 660-142918/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 142942 — **Prep Batch: 142918**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		10/31/13 14:30	11/01/13 17:43	1

Lab Sample ID: LCS 660-142918/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 142942 — **Prep Batch: 142918**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Iron	1000	1050		ug/L		105	80 - 120

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

Lab Sample ID: MB 660-142997/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 143034 — **Prep Batch: 142997**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 10:46	11/05/13 10:20	1

Lab Sample ID: LCS 660-142997/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 143034 — **Prep Batch: 142997**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Iron	1000	1040		ug/L		104	80 - 120

Lab Sample ID: LCSD 660-142997/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 143034 — **Prep Batch: 142997**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Iron	1000	1020		ug/L		102	80 - 120	2	20

Lab Sample ID: MB 660-143006/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 143034 — **Prep Batch: 143006**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Iron	<200		200	50	ug/L		11/04/13 12:36	11/05/13 12:07	1

Lab Sample ID: LCS 660-143006/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 143034 — **Prep Batch: 143006**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Iron	1000	1030		ug/L		103	80 - 120

Method: SM 5310C - TOC

Lab Sample ID: MB 640-105582/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.0		1.0	0.35	mg/L			10/30/13 18:20	1

Lab Sample ID: LCS 640-105582/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.3		mg/L		103	80 - 120

Method: SM 5310C - TOC (Continued)

Lab Sample ID: LCSD 640-105582/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105582

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			10.0	10.3		mg/L		103	80 - 120	0	25

Lab Sample ID: 640-45593-2 MS — **Client Sample ID: GZ-503L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	1.1		5.00	6.38		mg/L		106	80 - 120		

Lab Sample ID: 640-45593-2 MSD — **Client Sample ID: GZ-503L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105582

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	1.1		5.00	6.36		mg/L		105	80 - 120	0	25

Lab Sample ID: 640-45593-3 DU — **Client Sample ID: WB-2L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105582

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	5.0			4.81		mg/L				4	25

Lab Sample ID: MB 640-105621/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105621

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.0		1.0	0.35	mg/L			10/31/13 17:28	1

Lab Sample ID: LCS 640-105621/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105621

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			10.0	9.70		mg/L		97	80 - 120		

Lab Sample ID: LCSD 640-105621/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105621

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			10.0	9.77		mg/L		98	80 - 120	1	25

Lab Sample ID: 640-45619-1 MS — **Client Sample ID: GZ-601L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105621

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	<1.0		5.00	5.21		mg/L		104	80 - 120		

QC Sample Results

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Lab Sample ID: 640-45619-1 MSD — **Client Sample ID: GZ-601L**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105621

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	<1.0		5.00	5.20		mg/L		104	80 - 120	0	25

Lab Sample ID: 640-45619-2 DU — **Client Sample ID: DEC-204O**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105621

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	1.3			1.32		mg/L				2	25

Lab Sample ID: MB 640-105636/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105636

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	<1.0		1.0	0.35	mg/L			11/01/13 16:34	1

Lab Sample ID: LCS 640-105636/8 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105636

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			10.0	10.0		mg/L		100	80 - 120		

Lab Sample ID: LCSD 640-105636/9 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 105636

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon			10.0	10.0		mg/L		100	80 - 120	0	25

GC/MS VOA

Analysis Batch: 105748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-1	Trip Blank-1 10/29/13	Total/NA	Water	8260C	
640-45593-2	GZ-503L	Total/NA	Water	8260C	
640-45593-3	WB-2L	Total/NA	Water	8260C	
640-45593-4	WB-3L	Total/NA	Water	8260C	
640-45593-5	GZ-502L	Total/NA	Water	8260C	
640-45593-6	GZ-515U	Total/NA	Water	8260C	
640-45593-7	WB-4L	Total/NA	Water	8260C	
640-45593-7 MS	WB-4L	Total/NA	Water	8260C	
640-45593-7 MSD	WB-4L	Total/NA	Water	8260C	
640-45593-8	GZ-501L	Total/NA	Water	8260C	
640-45593-11	OW-404R	Total/NA	Water	8260C	
640-45593-12	FIELD BLANK	Total/NA	Water	8260C	
640-45593-13	GZ-505L	Total/NA	Water	8260C	
640-45593-14	WB-1L	Total/NA	Water	8260C	
LCS 640-105748/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 640-105748/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105748/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 105786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-9	OW-305I	Total/NA	Water	8260C	
640-45593-10	OW-305I DUP	Total/NA	Water	8260C	
640-45593-11 - DL	OW-404R	Total/NA	Water	8260C	
640-45593-14 - DL	WB-1L	Total/NA	Water	8260C	
LCS 640-105786/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 640-105786/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105786/9	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 105797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45642-1	Field Blank	Total/NA	Water	8260C	
640-45642-2	Trip Blank	Total/NA	Water	8260C	
640-45642-3	OW-307	Total/NA	Water	8260C	
640-45642-4	OW-402U	Total/NA	Water	8260C	
640-45642-5	GZ-506R	Total/NA	Water	8260C	
640-45642-6	OW-102	Total/NA	Water	8260C	
640-45642-6 MS	OW-102	Total/NA	Water	8260C	
640-45642-6 MSD	OW-102	Total/NA	Water	8260C	
640-45642-7	OW-304R	Total/NA	Water	8260C	
640-45642-8	OW-304L	Total/NA	Water	8260C	
640-45642-9	Equipment Blank	Total/NA	Water	8260C	
LCS 640-105797/2	Lab Control Sample	Total/NA	Water	8260C	
LCSD 640-105797/3	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105797/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 105801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-2	DEC-204O	Total/NA	Water	8260C	
640-45619-3	OW-408	Total/NA	Water	8260C	
640-45619-4	GZ-506U	Total/NA	Water	8260C	
640-45619-11 - DL	GZ-519U	Total/NA	Water	8260C	

GC/MS VOA (Continued)

Analysis Batch: 105801 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-12	OW-403L	Total/NA	Water	8260C	
640-45619-13	OW-403L DUP	Total/NA	Water	8260C	
640-45619-14	GZ-505R	Total/NA	Water	8260C	
640-45619-18	GZ-504R	Total/NA	Water	8260C	
640-45619-20	OW-101L	Total/NA	Water	8260C	
LCS 640-105801/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 640-105801/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105801/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 105804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-1	GZ-601L	Total/NA	Water	8260C	
640-45619-6	OW-304U	Total/NA	Water	8260C	
640-45619-7	FIELD BLANK	Total/NA	Water	8260C	
640-45619-8	TRIP BLANK	Total/NA	Water	8260C	
640-45619-9	OW-301	Total/NA	Water	8260C	
640-45619-10	GZ-601R	Total/NA	Water	8260C	
640-45619-11	GZ-519U	Total/NA	Water	8260C	
640-45619-19	OW-101	Total/NA	Water	8260C	
640-45619-19 MS	OW-101	Total/NA	Water	8260C	
640-45619-19 MSD	OW-101	Total/NA	Water	8260C	
LCS 640-105804/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 640-105804/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105804/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 105821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-15	GZ-504L	Total/NA	Water	8260C	
640-45619-16	OW-402L	Total/NA	Water	8260C	
640-45619-17	OW-402R	Total/NA	Water	8260C	
640-45619-B-10 MS	640-45619-B-10 MS	Total/NA	Water	8260C	
640-45619-B-10 MSD	640-45619-B-10 MSD	Total/NA	Water	8260C	
LCS 640-105821/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 640-105821/4	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105821/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 105826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-5	GZ-503U	Total/NA	Water	8260C	
LCS 640-105826/2	Lab Control Sample	Total/NA	Water	8260C	
LCSD 640-105826/3	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105826/4	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 105831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45642-5 - DL	GZ-506R	Total/NA	Water	8260C	
640-45642-7 - DL	OW-304R	Total/NA	Water	8260C	
640-45642-7 MS	OW-304R	Total/NA	Water	8260C	
640-45642-7 MSD	OW-304R	Total/NA	Water	8260C	
640-45642-8 - DL	OW-304L	Total/NA	Water	8260C	
LCS 640-105831/3	Lab Control Sample	Total/NA	Water	8260C	

GC/MS VOA (Continued)

Analysis Batch: 105831 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 640-105831/25	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 640-105831/4	Method Blank	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 196716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-2	GZ-503L	Total/NA	Water	RSK-175	
640-45593-4	WB-3L	Total/NA	Water	RSK-175	
640-45593-5	GZ-502L	Total/NA	Water	RSK-175	
640-45593-6	GZ-515U	Total/NA	Water	RSK-175	
640-45593-7	WB-4L	Total/NA	Water	RSK-175	
640-45593-11	OW-404R	Total/NA	Water	RSK-175	
LCS 400-196716/28	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 400-196716/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 400-196716/2	Method Blank	Total/NA	Water	RSK-175	

Analysis Batch: 197057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-19	OW-101	Total/NA	Water	RSK-175	
640-45619-20	OW-101L	Total/NA	Water	RSK-175	
640-45642-3	OW-307	Total/NA	Water	RSK-175	
640-45642-4	OW-402U	Total/NA	Water	RSK-175	
640-45642-5	GZ-506R	Total/NA	Water	RSK-175	
640-45642-8	OW-304L	Total/NA	Water	RSK-175	
LCS 400-197057/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 400-197057/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 400-197057/2	Method Blank	Total/NA	Water	RSK-175	

Analysis Batch: 197079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-9	OW-301	Total/NA	Water	RSK-175	
640-45619-10	GZ-601R	Total/NA	Water	RSK-175	
640-45619-11	GZ-519U	Total/NA	Water	RSK-175	
640-45619-12	OW-403L	Total/NA	Water	RSK-175	
640-45619-14	GZ-505R	Total/NA	Water	RSK-175	
640-45619-17	OW-402R	Total/NA	Water	RSK-175	
640-45619-18	GZ-504R	Total/NA	Water	RSK-175	
LCS 400-197079/3	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 400-197079/4	Lab Control Sample Dup	Total/NA	Water	RSK-175	
MB 400-197079/2	Method Blank	Total/NA	Water	RSK-175	

HPLC/IC

Analysis Batch: 302335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-2	GZ-503L	Total/NA	Water	300.0	
640-45593-4	WB-3L	Total/NA	Water	300.0	
640-45593-5	GZ-502L	Total/NA	Water	300.0	
640-45593-6	GZ-515U	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 302335 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-7	WB-4L	Total/NA	Water	300.0	
640-45593-11	OW-404R	Total/NA	Water	300.0	
640-45619-9	OW-301	Total/NA	Water	300.0	
640-45619-9 MS	OW-301	Total/NA	Water	300.0	
640-45619-9 MSD	OW-301	Total/NA	Water	300.0	
640-45619-10	GZ-601R	Total/NA	Water	300.0	
LCS 680-302335/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-302335/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-302335/6	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 302358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-11	GZ-519U	Total/NA	Water	300.0	
640-45619-12	OW-403L	Total/NA	Water	300.0	
640-45619-17	OW-402R	Total/NA	Water	300.0	
640-45619-18	GZ-504R	Total/NA	Water	300.0	
640-45619-19	OW-101	Total/NA	Water	300.0	
640-45642-3	OW-307	Total/NA	Water	300.0	
640-45642-4	OW-402U	Total/NA	Water	300.0	
640-45642-5	GZ-506R	Total/NA	Water	300.0	
640-45642-5 MS	GZ-506R	Total/NA	Water	300.0	
640-45642-5 MSD	GZ-506R	Total/NA	Water	300.0	
640-45642-8	OW-304L	Total/NA	Water	300.0	
LCS 680-302358/33	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-302358/34	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-302358/32	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 302428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-10	GZ-601R	Total/NA	Water	300.0	
640-45619-11	GZ-519U	Total/NA	Water	300.0	
640-45619-17	OW-402R	Total/NA	Water	300.0	
640-45619-18	GZ-504R	Total/NA	Water	300.0	
LCS 680-302428/59	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-302428/60	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-302428/57	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 302429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-5	GZ-502L	Total/NA	Water	300.0	
640-45619-14	GZ-505R	Total/NA	Water	300.0	
640-45619-20	OW-101L	Total/NA	Water	300.0	
LCS 680-302429/85	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-302429/86	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-302429/84	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 302480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-20	OW-101L	Total/NA	Water	300.0	
640-45642-4	OW-402U	Total/NA	Water	300.0	
640-45642-5	GZ-506R	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 302480 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-302480/7	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-302480/8	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-302480/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 142918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-2	GZ-503L	Dissolved	Water	3005A	
640-45593-4	WB-3L	Dissolved	Water	3005A	
640-45593-5	GZ-502L	Dissolved	Water	3005A	
640-45593-6	GZ-515U	Dissolved	Water	3005A	
640-45593-7	WB-4L	Dissolved	Water	3005A	
640-45593-11	OW-404R	Dissolved	Water	3005A	
LCS 660-142918/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 660-142918/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 142942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-2	GZ-503L	Dissolved	Water	6010B	142918
640-45593-4	WB-3L	Dissolved	Water	6010B	142918
640-45593-5	GZ-502L	Dissolved	Water	6010B	142918
640-45593-6	GZ-515U	Dissolved	Water	6010B	142918
640-45593-7	WB-4L	Dissolved	Water	6010B	142918
640-45593-11	OW-404R	Dissolved	Water	6010B	142918
CRI 660-142942/5 CRI	DL		Water	6010B	
ICSA 660-142942/7	ICS		Water	6010B	
ICSAB 660-142942/8	ICS		Water	6010B	
LCS 660-142918/2-A	Lab Control Sample	Total Recoverable	Water	6010B	142918
MB 660-142918/1-A	Method Blank	Total Recoverable	Water	6010B	142918

Prep Batch: 142997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45642-3	OW-307	Dissolved	Water	3005A	
640-45642-5	GZ-506R	Dissolved	Water	3005A	
640-45642-8	OW-304L	Dissolved	Water	3005A	
LCS 660-142997/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 660-142997/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
MB 660-142997/1-A	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 143006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-9	OW-301	Dissolved	Water	3005A	
640-45619-10	GZ-601R	Dissolved	Water	3005A	
640-45619-11	GZ-519U	Dissolved	Water	3005A	
640-45619-12	OW-403L	Dissolved	Water	3005A	
640-45619-14	GZ-505R	Dissolved	Water	3005A	
640-45619-17	OW-402R	Dissolved	Water	3005A	
640-45619-18	GZ-504R	Dissolved	Water	3005A	
640-45619-19	OW-101	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 143006 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-20	OW-101L	Dissolved	Water	3005A	
LCS 660-143006/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 660-143006/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 143034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-9	OW-301	Dissolved	Water	6010B	143006
640-45619-10	GZ-601R	Dissolved	Water	6010B	143006
640-45619-11	GZ-519U	Dissolved	Water	6010B	143006
640-45619-12	OW-403L	Dissolved	Water	6010B	143006
640-45619-14	GZ-505R	Dissolved	Water	6010B	143006
640-45619-17	OW-402R	Dissolved	Water	6010B	143006
640-45619-18	GZ-504R	Dissolved	Water	6010B	143006
640-45619-19	OW-101	Dissolved	Water	6010B	143006
640-45619-20	OW-101L	Dissolved	Water	6010B	143006
640-45642-3	OW-307	Dissolved	Water	6010B	142997
640-45642-5	GZ-506R	Dissolved	Water	6010B	142997
640-45642-8	OW-304L	Dissolved	Water	6010B	142997
CRI 660-143034/5 CRI	DL		Water	6010B	
ICSA 660-143034/7	ICS		Water	6010B	
ICSAB 660-143034/8	ICS		Water	6010B	
LCS 660-142997/2-A	Lab Control Sample	Total Recoverable	Water	6010B	142997
LCS 660-143006/2-A	Lab Control Sample	Total Recoverable	Water	6010B	143006
LCSD 660-142997/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	142997
MB 660-142997/1-A	Method Blank	Total Recoverable	Water	6010B	142997
MB 660-143006/1-A	Method Blank	Total Recoverable	Water	6010B	143006

General Chemistry

Analysis Batch: 105582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-2	GZ-503L	Total/NA	Water	SM 5310C	
640-45593-2 MS	GZ-503L	Total/NA	Water	SM 5310C	
640-45593-2 MSD	GZ-503L	Total/NA	Water	SM 5310C	
640-45593-3	WB-2L	Total/NA	Water	SM 5310C	
640-45593-3 DU	WB-2L	Total/NA	Water	SM 5310C	
640-45593-4	WB-3L	Total/NA	Water	SM 5310C	
640-45593-5	GZ-502L	Total/NA	Water	SM 5310C	
640-45593-6	GZ-515U	Total/NA	Water	SM 5310C	
640-45593-7	WB-4L	Total/NA	Water	SM 5310C	
640-45593-8	GZ-501L	Total/NA	Water	SM 5310C	
640-45593-9	OW-305I	Total/NA	Water	SM 5310C	
640-45593-11	OW-404R	Total/NA	Water	SM 5310C	
640-45593-13	GZ-505L	Total/NA	Water	SM 5310C	
640-45593-14	WB-1L	Total/NA	Water	SM 5310C	
LCS 640-105582/8	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 640-105582/9	Lab Control Sample Dup	Total/NA	Water	SM 5310C	
MB 640-105582/7	Method Blank	Total/NA	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 105621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-1	GZ-601L	Total/NA	Water	SM 5310C	
640-45619-1 MS	GZ-601L	Total/NA	Water	SM 5310C	
640-45619-1 MSD	GZ-601L	Total/NA	Water	SM 5310C	
640-45619-2	DEC-204O	Total/NA	Water	SM 5310C	
640-45619-2 DU	DEC-204O	Total/NA	Water	SM 5310C	
640-45619-3	OW-408	Total/NA	Water	SM 5310C	
640-45619-4	GZ-506U	Total/NA	Water	SM 5310C	
640-45619-5	GZ-503U	Total/NA	Water	SM 5310C	
640-45619-6	OW-304U	Total/NA	Water	SM 5310C	
640-45619-9	OW-301	Total/NA	Water	SM 5310C	
640-45619-10	GZ-601R	Total/NA	Water	SM 5310C	
640-45619-11	GZ-519U	Total/NA	Water	SM 5310C	
640-45619-12	OW-403L	Total/NA	Water	SM 5310C	
640-45619-14	GZ-505R	Total/NA	Water	SM 5310C	
640-45619-15	GZ-504L	Total/NA	Water	SM 5310C	
640-45619-16	OW-402L	Total/NA	Water	SM 5310C	
640-45619-17	OW-402R	Total/NA	Water	SM 5310C	
640-45619-18	GZ-504R	Total/NA	Water	SM 5310C	
640-45619-19	OW-101	Total/NA	Water	SM 5310C	
640-45619-20	OW-101L	Total/NA	Water	SM 5310C	
LCS 640-105621/8	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 640-105621/9	Lab Control Sample Dup	Total/NA	Water	SM 5310C	
MB 640-105621/7	Method Blank	Total/NA	Water	SM 5310C	

Analysis Batch: 105636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45642-3	OW-307	Total/NA	Water	SM 5310C	
640-45642-4	OW-402U	Total/NA	Water	SM 5310C	
640-45642-5	GZ-506R	Total/NA	Water	SM 5310C	
640-45642-6	OW-102	Total/NA	Water	SM 5310C	
640-45642-7	OW-304R	Total/NA	Water	SM 5310C	
640-45642-8	OW-304L	Total/NA	Water	SM 5310C	
LCS 640-105636/8	Lab Control Sample	Total/NA	Water	SM 5310C	
LCSD 640-105636/9	Lab Control Sample Dup	Total/NA	Water	SM 5310C	
MB 640-105636/7	Method Blank	Total/NA	Water	SM 5310C	

Analysis Batch: 105762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45593-2	GZ-503L	Total/NA	Water	Nitrate by calc	
640-45593-4	WB-3L	Total/NA	Water	Nitrate by calc	
640-45593-5	GZ-502L	Total/NA	Water	Nitrate by calc	
640-45593-6	GZ-515U	Total/NA	Water	Nitrate by calc	
640-45593-7	WB-4L	Total/NA	Water	Nitrate by calc	
640-45593-11	OW-404R	Total/NA	Water	Nitrate by calc	
640-45619-9	OW-301	Total/NA	Water	Nitrate by calc	
640-45619-10	GZ-601R	Total/NA	Water	Nitrate by calc	
640-45619-11	GZ-519U	Total/NA	Water	Nitrate by calc	
640-45619-12	OW-403L	Total/NA	Water	Nitrate by calc	
640-45619-14	GZ-505R	Total/NA	Water	Nitrate by calc	
640-45619-17	OW-402R	Total/NA	Water	Nitrate by calc	
640-45619-18	GZ-504R	Total/NA	Water	Nitrate by calc	

General Chemistry (Continued)

Analysis Batch: 105762 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-45619-19	OW-101	Total/NA	Water	Nitrate by calc	
640-45619-20	OW-101L	Total/NA	Water	Nitrate by calc	
640-45642-3	OW-307	Total/NA	Water	Nitrate by calc	
640-45642-4	OW-402U	Total/NA	Water	Nitrate by calc	
640-45642-5	GZ-506R	Total/NA	Water	Nitrate by calc	
640-45642-8	OW-304L	Total/NA	Water	Nitrate by calc	

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: Trip Blank-1 10/29/13 — Lab Sample ID: 640-45593-1

Date Collected: 10/29/13 00:00 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 15:28	LAG	TAL TAL

Client Sample ID: GZ-503L — Lab Sample ID: 640-45593-2

Date Collected: 10/29/13 14:00 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 16:14	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	196716	11/01/13 11:05	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 14:01	VAS	TAL SAV
Dissolved	Prep	3005A			142918	10/31/13 14:30	RAG	TAL TAM
Dissolved	Analysis	6010B		1	142942	11/01/13 18:13	SR1	TAL TAM
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 19:04	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: WB-2L — Lab Sample ID: 640-45593-3

Date Collected: 10/29/13 13:55 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 16:37	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 19:51	JMF	TAL TAL

Client Sample ID: WB-3L — Lab Sample ID: 640-45593-4

Date Collected: 10/29/13 12:45 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 17:00	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	196716	11/01/13 11:14	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 14:15	VAS	TAL SAV
Dissolved	Prep	3005A			142918	10/31/13 14:30	RAG	TAL TAM
Dissolved	Analysis	6010B		1	142942	11/01/13 18:23	SR1	TAL TAM
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 20:49	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-502L — Lab Sample ID: 640-45593-5

Date Collected: 10/29/13 13:00 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 17:23	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	196716	11/01/13 11:35	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 14:28	VAS	TAL SAV
Total/NA	Analysis	300.0		2	302429	11/09/13 06:15	VAS	TAL SAV
Dissolved	Prep	3005A			142918	10/31/13 14:30	RAG	TAL TAM
Dissolved	Analysis	6010B		1	142942	11/01/13 18:26	SR1	TAL TAM
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 21:03	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-515U — Lab Sample ID: 640-45593-6

Date Collected: 10/29/13 10:10 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 17:45	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	196716	11/01/13 12:27	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 14:41	VAS	TAL SAV
Dissolved	Prep	3005A			142918	10/31/13 14:30	RAG	TAL TAM
Dissolved	Analysis	6010B		1	142942	11/01/13 18:30	SR1	TAL TAM
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 21:17	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: WB-4L — Lab Sample ID: 640-45593-7

Date Collected: 10/29/13 11:25 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 18:08	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	196716	11/01/13 12:41	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 14:55	VAS	TAL SAV
Dissolved	Prep	3005A			142918	10/31/13 14:30	RAG	TAL TAM
Dissolved	Analysis	6010B		1	142942	11/01/13 18:33	SR1	TAL TAM
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 21:31	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-501L — Lab Sample ID: 640-45593-8

Date Collected: 10/29/13 12:20 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 18:31	LAG	TAL TAL

Client Sample ID: GZ-501L — Lab Sample ID: 640-45593-8

Date Collected: 10/29/13 12:20 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 21:45	JMF	TAL TAL

Client Sample ID: OW-305I — Lab Sample ID: 640-45593-9

Date Collected: 10/29/13 11:00 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	105786	11/08/13 15:42	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 21:59	JMF	TAL TAL

Client Sample ID: OW-305I DUP — Lab Sample ID: 640-45593-10

Date Collected: 10/29/13 11:00 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	105786	11/08/13 16:05	LAG	TAL TAL

Client Sample ID: OW-404R — Lab Sample ID: 640-45593-11

Date Collected: 10/29/13 14:45 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 20:03	LAG	TAL TAL
Total/NA	Analysis	8260C	DL	5	105786	11/08/13 16:28	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	196716	11/01/13 12:51	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 15:08	VAS	TAL SAV
Dissolved	Prep	3005A			142918	10/31/13 14:30	RAG	TAL TAM
Dissolved	Analysis	6010B		1	142942	11/01/13 18:36	SR1	TAL TAM
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 22:12	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: FIELD BLANK — Lab Sample ID: 640-45593-12

Date Collected: 10/29/13 15:20 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 15:51	LAG	TAL TAL

Client Sample ID: GZ-505L — Lab Sample ID: 640-45593-13

Date Collected: 10/29/13 15:45 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 20:26	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 22:27	JMF	TAL TAL

Client Sample ID: WB-1L — Lab Sample ID: 640-45593-14

Date Collected: 10/29/13 16:15 — **Matrix: Water**
Date Received: 10/30/13 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105748	11/07/13 18:54	LAG	TAL TAL
Total/NA	Analysis	8260C	DL	5	105786	11/08/13 16:51	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105582	10/30/13 22:41	JMF	TAL TAL

Client Sample ID: GZ-601L — Lab Sample ID: 640-45619-1

Date Collected: 10/30/13 11:10 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105804	11/08/13 15:40	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 18:10	JMF	TAL TAL

Client Sample ID: DEC-204O — Lab Sample ID: 640-45619-2

Date Collected: 10/30/13 10:05 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/09/13 22:32	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 18:52	JMF	TAL TAL

Client Sample ID: OW-408 — Lab Sample ID: 640-45619-3

Date Collected: 10/30/13 10:40 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/09/13 21:47	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 19:46	JMF	TAL TAL

Client Sample ID: GZ-506U — Lab Sample ID: 640-45619-4

Date Collected: 10/30/13 13:10 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/09/13 23:18	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 20:00	JMF	TAL TAL

Client Sample ID: GZ-503U — Lab Sample ID: 640-45619-5

Date Collected: 10/30/13 08:50 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105826	11/10/13 16:56	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 20:17	JMF	TAL TAL

Client Sample ID: OW-304U — Lab Sample ID: 640-45619-6

Date Collected: 10/30/13 08:30 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105804	11/08/13 16:03	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 20:33	JMF	TAL TAL

Client Sample ID: FIELD BLANK — Lab Sample ID: 640-45619-7

Date Collected: 10/30/13 11:50 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105804	11/08/13 15:17	LAG	TAL TAL

Client Sample ID: TRIP BLANK — Lab Sample ID: 640-45619-8

Date Collected: 10/30/13 00:00 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105804	11/08/13 14:54	LAG	TAL TAL

Client Sample ID: OW-301 — Lab Sample ID: 640-45619-9

Date Collected: 10/30/13 09:05 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105804	11/08/13 16:26	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197079	11/05/13 10:54	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 15:21	VAS	TAL SAV

Client Sample ID: OW-301

Lab Sample ID: 640-45619-9

Date Collected: 10/30/13 09:05

Matrix: Water

Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 13:30	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 20:46	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-601R

Lab Sample ID: 640-45619-10

Date Collected: 10/30/13 10:15

Matrix: Water

Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105804	11/08/13 16:49	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197079	11/05/13 11:13	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302335	11/08/13 16:01	VAS	TAL SAV
Total/NA	Analysis	300.0		2	302428	11/08/13 23:08	VAS	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 12:30	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 21:01	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-519U

Lab Sample ID: 640-45619-11

Date Collected: 10/30/13 12:40

Matrix: Water

Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	5	105801	11/09/13 19:06	LAG	TAL TAL
Total/NA	Analysis	8260C		1	105804	11/08/13 17:12	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197079	11/05/13 11:23	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302358	11/08/13 17:08	VAS	TAL SAV
Total/NA	Analysis	300.0		10	302428	11/08/13 23:21	VAS	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 12:33	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 21:15	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: OW-403L

Lab Sample ID: 640-45619-12

Date Collected: 10/30/13 11:30

Matrix: Water

Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/09/13 20:15	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197079	11/05/13 11:33	MRM	TAL PEN

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-403L
Lab Sample ID: 640-45619-12
Date Collected: 10/30/13 11:30
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	302358	11/08/13 17:21	VAS	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 12:37	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 21:31	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: OW-403L DUP
Lab Sample ID: 640-45619-13
Date Collected: 10/30/13 11:30
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/09/13 21:01	LAG	TAL TAL

Client Sample ID: GZ-505R
Lab Sample ID: 640-45619-14
Date Collected: 10/30/13 12:05
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/10/13 00:04	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197079	11/05/13 11:45	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302429	11/09/13 05:35	VAS	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 12:47	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 21:44	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-504L
Lab Sample ID: 640-45619-15
Date Collected: 10/30/13 13:35
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105821	11/09/13 18:39	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 21:59	JMF	TAL TAL

Client Sample ID: OW-402L
Lab Sample ID: 640-45619-16
Date Collected: 10/30/13 14:00
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105821	11/09/13 19:02	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 22:41	JMF	TAL TAL

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-402R

Lab Sample ID: 640-45619-17

Date Collected: 10/30/13 14:35
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105821	11/09/13 19:25	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197079	11/05/13 12:01	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302358	11/08/13 17:35	VAS	TAL SAV
Total/NA	Analysis	300.0		2	302428	11/08/13 23:35	VAS	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 12:50	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 22:56	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-504R

Lab Sample ID: 640-45619-18

Date Collected: 10/30/13 14:35
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/10/13 00:50	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197079	11/05/13 12:24	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302358	11/08/13 17:48	VAS	TAL SAV
Total/NA	Analysis	300.0		2	302428	11/08/13 23:48	VAS	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 12:53	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 23:10	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: OW-101

Lab Sample ID: 640-45619-19

Date Collected: 10/30/13 15:05
Matrix: Water
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	105804	11/08/13 19:06	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197057	11/04/13 13:37	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302358	11/08/13 18:01	VAS	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 12:57	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 23:25	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-101L — Lab Sample ID: 640-45619-20

Date Collected: 10/30/13 15:30 — **Matrix: Water**
Date Received: 10/31/13 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105801	11/09/13 19:29	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197057	11/04/13 13:52	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302429	11/09/13 05:48	VAS	TAL SAV
Total/NA	Analysis	300.0		2	302480	11/09/13 16:58	CMB	TAL SAV
Dissolved	Prep	3005A			143006	11/04/13 12:36	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 13:00	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105621	10/31/13 23:40	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: Field Blank — Lab Sample ID: 640-45642-1

Date Collected: 10/31/13 10:35 — **Matrix: Water**
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 11:32	LKS	TAL TAL

Client Sample ID: Trip Blank — Lab Sample ID: 640-45642-2

Date Collected: 10/31/13 00:00 — **Matrix: Water**
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 11:53	LKS	TAL TAL

Client Sample ID: OW-307 — Lab Sample ID: 640-45642-3

Date Collected: 10/31/13 10:10 — **Matrix: Water**
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	105797	11/09/13 12:58	LKS	TAL TAL
Total/NA	Analysis	RSK-175		1	197057	11/04/13 14:17	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302358	11/08/13 18:15	VAS	TAL SAV
Dissolved	Prep	3005A			142997	11/04/13 10:46	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 10:55	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105636	11/01/13 23:08	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-402U

Lab Sample ID: 640-45642-4
Date Collected: 10/31/13 09:00
Matrix: Water
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 12:15	LKS	TAL TAL
Total/NA	Analysis	RSK-175		1	197057	11/04/13 14:43	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302358	11/08/13 18:28	VAS	TAL SAV
Total/NA	Analysis	300.0		2	302480	11/09/13 16:05	CMB	TAL SAV
Total/NA	Analysis	SM 5310C		1	105636	11/01/13 23:22	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: GZ-506R

Lab Sample ID: 640-45642-5
Date Collected: 10/31/13 09:15
Matrix: Water
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 13:20	LKS	TAL TAL
Total/NA	Analysis	8260C	DL	5	105831	11/11/13 14:32	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197057	11/04/13 15:08	MRM	TAL PEN
Total/NA	Analysis	300.0		1	302358	11/08/13 18:41	VAS	TAL SAV
Total/NA	Analysis	300.0		2	302480	11/09/13 16:18	CMB	TAL SAV
Dissolved	Prep	3005A			142997	11/04/13 10:46	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 10:59	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105636	11/01/13 23:37	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: OW-102

Lab Sample ID: 640-45642-6
Date Collected: 10/31/13 08:25
Matrix: Water
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 12:37	LKS	TAL TAL
Total/NA	Analysis	SM 5310C		1	105636	11/01/13 23:49	JMF	TAL TAL

Client Sample ID: OW-304R

Lab Sample ID: 640-45642-7
Date Collected: 10/31/13 10:00
Matrix: Water
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 14:03	LKS	TAL TAL
Total/NA	Analysis	8260C	DL	20	105831	11/11/13 14:55	LAG	TAL TAL
Total/NA	Analysis	SM 5310C		1	105636	11/02/13 00:03	JMF	TAL TAL

Lab Chronicle

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Client Sample ID: OW-304L

Lab Sample ID: 640-45642-8

Date Collected: 10/31/13 10:50
Matrix: Water
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 14:47	LKS	TAL TAL
Total/NA	Analysis	8260C	DL	20	105831	11/11/13 15:18	LAG	TAL TAL
Total/NA	Analysis	RSK-175		1	197057	11/04/13 15:29	MRM	TAL PEN
Total/NA	Analysis	300.0		2	302358	11/08/13 19:48	VAS	TAL SAV
Dissolved	Prep	3005A			142997	11/04/13 10:46	GAF	TAL TAM
Dissolved	Analysis	6010B		1	143034	11/05/13 11:02	GAF	TAL TAM
Total/NA	Analysis	SM 5310C		1	105636	11/02/13 00:20	JMF	TAL TAL
Total/NA	Analysis	Nitrate by calc		1	105762	11/08/13 10:40	TJW	TAL TAL

Client Sample ID: Equipment Blank

Lab Sample ID: 640-45642-9

Date Collected: 10/31/13 11:30
Matrix: Water
Date Received: 11/01/13 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	105797	11/09/13 08:11	LKS	TAL TAL

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAL = TestAmerica Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301, TEL (850)878-3994

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Certification Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Laboratory: TestAmerica Tallahassee

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E81005	06-30-14
Georgia	State Program	4		06-30-14
Louisiana	NELAP	6	30663	06-30-14
New Jersey	NELAP	2	FL012	06-30-14
Texas	NELAP	6	T104704459-11-2	03-31-14
USDA	Federal		P330-08-00158	08-05-14

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-14
Arizona	State Program	9	AZ0710	01-11-14
Arkansas DEQ	State Program	6	88-0689	09-01-13 *
Florida	NELAP	4	E81010	06-30-14
Georgia	State Program	4	N/A	06-30-14
Iowa	State Program	7	367	08-01-14
Kansas	NELAP	7	E-10253	10-31-14
Kentucky (UST)	State Program	4	53	06-30-14
Louisiana	NELAP	6	30976	06-30-14
Maryland	State Program	3	233	09-30-14
Massachusetts	State Program	1	M-FL094	06-30-14
Michigan	State Program	5	9912	05-04-14
New Jersey	NELAP	2	FL006	06-30-14
North Carolina DENR	State Program	4	314	12-31-13
Oklahoma	State Program	6	9810	08-31-14
Pennsylvania	NELAP	3	68-00467	01-31-14
Rhode Island	State Program	1	LAO00307	12-31-13
South Carolina	State Program	4	96026	06-30-13 *
Tennessee	State Program	4	TN02907	06-30-14
Texas	NELAP	6	T104704286-12-5	09-30-14
USDA	Federal		P330-10-00407	12-10-13
Virginia	NELAP	3	460166	06-14-14
West Virginia DEP	State Program	3	136	06-30-14

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-14
Arkansas DEQ	State Program	6	88-0692	02-01-14
California	NELAP	9	3217CA	07-31-14
Colorado	State Program	8	N/A	12-31-13 *
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13 *
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14

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

Laboratory: TestAmerica Savannah (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Guam	State Program	9	09-005r	06-17-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13 *
Indiana	State Program	5	N/A	06-30-14
Iowa	State Program	7	353	07-01-15
Kentucky	State Program	4	90084	12-31-13 *
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13 *
Massachusetts	State Program	1	M-GA006	06-30-14
Michigan	State Program	5	9925	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-14 *
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14
New Jersey	NELAP	2	GA769	06-30-14
New Mexico	State Program	6	N/A	06-30-14
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13 *
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14 *
South Carolina	State Program	4	98001	06-30-14
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13 *
West Virginia DEP	State Program	3	94	06-30-14
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14

Laboratory: TestAmerica Tampa

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40610	06-30-14
Florida	NELAP	4	E84282	06-30-14
Georgia	State Program	4	905	06-30-14
USDA	Federal		P330-11-00177	04-20-14

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

Method Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL TAL
RSK-175	Dissolved Gases (GC)	RSK	TAL PEN
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
6010B	Metals (ICP)	SW846	TAL TAM
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	TAL TAL
SM 5310C	TOC	SM	TAL TAL

Protocol References:

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

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

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

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

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAL = TestAmerica Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301, TEL (850)878-3994

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Sample Summary

Client: GZA GeoEnvironmental, Inc.
Project/Site: HP-San German IB

TestAmerica Job ID: 640-45593-1
SDG: 45593

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
640-45593-1	Trip Blank-1 10/29/13	Water	10/29/13 00:00	10/30/13 10:00
640-45593-2	GZ-503L	Water	10/29/13 14:00	10/30/13 10:00
640-45593-3	WB-2L	Water	10/29/13 13:55	10/30/13 10:00
640-45593-4	WB-3L	Water	10/29/13 12:45	10/30/13 10:00
640-45593-5	GZ-502L	Water	10/29/13 13:00	10/30/13 10:00
640-45593-6	GZ-515U	Water	10/29/13 10:10	10/30/13 10:00
640-45593-7	WB-4L	Water	10/29/13 11:25	10/30/13 10:00
640-45593-8	GZ-501L	Water	10/29/13 12:20	10/30/13 10:00
640-45593-9	OW-305I	Water	10/29/13 11:00	10/30/13 10:00
640-45593-10	OW-305I DUP	Water	10/29/13 11:00	10/30/13 10:00
640-45593-11	OW-404R	Water	10/29/13 14:45	10/30/13 10:00
640-45593-12	FIELD BLANK	Water	10/29/13 15:20	10/30/13 10:00
640-45593-13	GZ-505L	Water	10/29/13 15:45	10/30/13 10:00
640-45593-14	WB-1L	Water	10/29/13 16:15	10/30/13 10:00
640-45619-1	GZ-601L	Water	10/30/13 11:10	10/31/13 09:00
640-45619-2	DEC-204O	Water	10/30/13 10:05	10/31/13 09:00
640-45619-3	OW-408	Water	10/30/13 10:40	10/31/13 09:00
640-45619-4	GZ-506U	Water	10/30/13 13:10	10/31/13 09:00
640-45619-5	GZ-503U	Water	10/30/13 08:50	10/31/13 09:00
640-45619-6	OW-304U	Water	10/30/13 08:30	10/31/13 09:00
640-45619-7	FIELD BLANK	Water	10/30/13 11:50	10/31/13 09:00
640-45619-8	TRIP BLANK	Water	10/30/13 00:00	10/31/13 09:00
640-45619-9	OW-301	Water	10/30/13 09:05	10/31/13 09:00
640-45619-10	GZ-601R	Water	10/30/13 10:15	10/31/13 09:00
640-45619-11	GZ-519U	Water	10/30/13 12:40	10/31/13 09:00
640-45619-12	OW-403L	Water	10/30/13 11:30	10/31/13 09:00
640-45619-13	OW-403L DUP	Water	10/30/13 11:30	10/31/13 09:00
640-45619-14	GZ-505R	Water	10/30/13 12:05	10/31/13 09:00
640-45619-15	GZ-504L	Water	10/30/13 13:35	10/31/13 09:00
640-45619-16	OW-402L	Water	10/30/13 14:00	10/31/13 09:00
640-45619-17	OW-402R	Water	10/30/13 14:35	10/31/13 09:00
640-45619-18	GZ-504R	Water	10/30/13 14:35	10/31/13 09:00
640-45619-19	OW-101	Water	10/30/13 15:05	10/31/13 09:00
640-45619-20	OW-101L	Water	10/30/13 15:30	10/31/13 09:00
640-45642-1	Field Blank	Water	10/31/13 10:35	11/01/13 09:50
640-45642-2	Trip Blank	Water	10/31/13 00:00	11/01/13 09:50
640-45642-3	OW-307	Water	10/31/13 10:10	11/01/13 09:50
640-45642-4	OW-402U	Water	10/31/13 09:00	11/01/13 09:50
640-45642-5	GZ-506R	Water	10/31/13 09:15	11/01/13 09:50
640-45642-6	OW-102	Water	10/31/13 08:25	11/01/13 09:50
640-45642-7	OW-304R	Water	10/31/13 10:00	11/01/13 09:50
640-45642-8	OW-304L	Water	10/31/13 10:50	11/01/13 09:50
640-45642-9	Equipment Blank	Water	10/31/13 11:30	11/01/13 09:50

TestAmerica Tallahassee
2846 Industrial Plaza Drive
Tallahassee, FL 32301
Phone (850) 878-3994 Fax (850) 878-9504

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Jessica Yeager, V Nelson Feliciano, Emmanuel Ortiz	Lab PM: Marks, Amy	Carrier Tracking No(s):
Client Contact: Ms. Jessica Yeager	Phone: 781-278-5833	E-Mail: amy.marks@testamericainc.com	COC No: 640-41336-11114.6
			Page: Page 1 of 1
Company: GZA GeoEnvironmental, Inc.			Job #: 1040-45593
Address: 249 Vanderbilt Ave	Due Date Requested:		
City: Norwood	TAT Requested (days):		
State, Zip: MA, 02062			
Phone: 781-278-5833(Tel) 781-278-5701(Fax)	PO #: 01-16687		
Email: jessica.yeager@gza.com	WO #:		
Project Name: HP-San German IB	Project #: 64004374		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA

640-45593 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8010 plus DBM,BB,1112TECA,123TCP	5310C - Total Organic Carbon	RSK_175 - MEE (Dissolved Gases)	SM4500_NO2_B - Nitrite as N	353.2 - Nitrate Nitrite as N	6010B - Dissolved Iron	300_ORGFM_28D - Chloride and Sulfate	Total	Special Instructions/Note:
			Preservation Code:				A	S	A	N	S	D	N		
Trip Blank -1 10/29/13	10/29/13	—	—	W	N	N	X							3	
GZ-502L	10/29/13	1400	G	W	Y	N	X	X	X	X	X	X	X	12	Field filtered 6010B only
WB-2L		1355			N	N	X	X						6	
WB-3L		1245			Y	N	X	X	X	X	X	X	X	12	Field filtered 6010B only
GZ-502L		1300			Y	N	X	X	X	X	X	X	X	12	" "
GZ-515U		1010			Y	N	X	X	X	X	X	X	X	12	" "
WB-4L		1125			Y	Y	X	X	X	X	X	X	X	6	" " ; MS/MSD for 8260 only
GZ-501L		1220			N	N	X	X						6	
OW-305L		1100			N	N	X	X						6	
OW-305L DUP		1100			N	N	X	X						6	
OW-404R		1445			Y	N	X	X	X	X	X	X	X	12	Field filtered for 6010B only

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

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

Deliverable Requested: I, II, III, IV, Other (specify) IV

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 10/9/13	Time: 1110		Method of Shipment:	
Relinquished by:	Date/Time: 10/29/13 1900	Company: GZA	Received by:	Date/Time: 10-30-13 1000	Company: TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 4.0°C

TestAmerica Tallahassee
2846 Industrial Plaza Drive
Tallahassee, FL 32301
Phone (850) 878-3994 Fax (850) 878-9504

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Nelson Feliciano Jessica Yeager Emmanuel Ortiz	Lab PM: Marks, Amy	Carrier Tracking No(s):
Client Contact: Ms. Jessica Yeager	Phone: 781-278-5833	E-Mail: amy.marks@testamericainc.com	
Company: GZA GeoEnvironmental, Inc.			
Address: 249 Vanderbilt Ave	Due Date Requested:		
City: Norwood	TAT Requested (days):		
State, Zip: MA, 02062			
Phone: 781-278-5833(Tel) 781-278-5701(Fax)	PO #: 01-16687		
Email: jessica.yeager@gza.com	WO #:		
Project Name: HP-San German IB	Project #: 64004374		
Site:	SSOW#:		

COC No: 640-41336-11114.5
Page: Page 5 of 6 2 of 2
Job #: 640-45593

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8010 plus DBM,BB,1112TECA,123TCP	5310C - Total Organic Carbon	RSK_175 - MEE (Dissolved Gases)	SM4500_NO2_B - Nitrite as N	353.2 - Nitrate Nitrite as N	6010B - Dissolved Iron	300_ORGFM_28D - Chloride and Sulfate	Temperature	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S	A	N	S	D	N	N		
Field Blank	10/29/13	1520	G	W	N	N	X								3	
GZ-505L	10/29/13	1545	G	W	N	N	X	X							6	
WB-1L	10/29/13	1615	G	W	N	N	X	X							6	
Temperature Blank	10/29/13	—	—	—	N	N								X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify) IV

Special Instructions/QC Requirements:

Empty Kit Relinquished by: [signature] Date: 10/9/13 Time: 1110 Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	10.29.13 / 1900	JFA	J. Campenti	10-30-13 1000	TAC

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 4.0°C

TestAmerica Tallahassee
2846 Industrial Plaza Drive
Tallahassee, FL 32301
Phone (850) 878-3994 Fax (850) 878-9504

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: J. Yeager, N. Feliciano E. Ortiz	Lab PM: Marks, Amy	Carrier Tracking No(s):
Client Contact: Ms. Jessica Yeager	Phone: 781-278-5833	E-Mail: amy.marks@testamericainc.com	
Company: GZA GeoEnvironmental, Inc.			
Address: 249 Vanderbilt Ave	Due Date Requested:		
City: Norwood	TAT Requested (days):		
State, Zip: MA, 02062			
Phone: 781-278-5833(Tel) 781-278-5701(Fax)	PO #: 01-16687		
Email: jessica.yeager@gza.com	WO #:		
Project Name: HP-San German IB	Project #: 64004374		
Site:	SSOW#:		

COC No: 640-41336-11114.4
Page: ~~Page 4 of 6~~ 1 of 2
Job #: 640-45619

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5

640-45619 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8010 plus DBM,BB,1112TECA,123TCP	5310C - Total Organic Carbon	RSK_175 - MEE (Dissolved Gases)	SM4500_NO2_B - Nitrite as N	353.2 - Nitrate Nitrite as N	6010B - Dissolved Iron	300_ORGFM_28D - Chloride and Sulfate	Containers	
			Preservation Code:				A	S	A	N	S	D	N		
GZ-601L	10/30/13	1110	G	W	N	N	X	X						6	
DEC-2040		1005			N	N	X	X						6	
OW-408		1040			N	N	X	X						6	
GZ-506U		1310			N	N	X	X						6	
GZ-503U		0850			N	N	X	X						6	
~~GZ-6~~ OW-304U		0830			N	N	X	X						6	
Field Blank		1150			N	N	X							3	
Trip Blank		—			N	N	X							3	
OW-301		0905			Y	N	X	X	X	X	X	X	X	12	field filtered 6010B only
GZ-601R		1015			Y	N	X	X	X	X	X	X	X	12	" "
GZ-519U		1240			Y	N	X	X	X	X	X	X	X	12	" "

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

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

Special Instructions/QC Requirements:

Deliverable Requested: I, II, III, IV, Other (specify) IV

Method of Shipment:

Empty Kit Relinquished by: [signature]	Date: 10/9/13	Time: 1110			
Relinquished by: [signature]	Date/Time: 10.30.13 / 1800	Company: GEA	Received by: J Campenti	Date/Time: 10-31-13 0900	Company: TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 7.1°C

TestAmerica Tallahassee
2846 Industrial Plaza Drive
Tallahassee, FL 32301
Phone (850) 878-3994 Fax (850) 878-9504

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Jessica Yeager, Nelson Teliciano, Emmanuel Ortiz	Lab PM: Marks, Amy	Carrier Tracking No(s):	COC No: 640-41336-11114.1
Client Contact: Ms. Jessica Yeager	Phone: 781-278-5833	E-Mail: amy.marks@testamericainc.com		Page: Page 2 of 2
Company: GZA GeoEnvironmental, Inc.				Job #: 640-45619
Address: 249 Vanderbilt Ave	Due Date Requested:			
City: Norwood	TAT Requested (days):			
State, Zip: MA, 02062				
Phone: 781-278-5833(Tel) 781-278-5701(Fax)	PO #: 01-16687			
Email: jessica.yeager@gza.com	WO #:			
Project Name: HP-San German IB	Project #: 64004374			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8010 plus DBM,BB,1112TECA,123TCP	5310C - Total Organic Carbon	RSK_175 - MEE (Dissolved Gases)	SM4500_NO2_B - Nitrite as N	353.2 - Nitrate Nitrite as N	6010B - Dissolved Iron	300_ORGFM_28D - Chloride and Sulfate	Temperature	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S	A	N	S	D	N			
OW-403L	10/30/13	1130	G	W	N	N	X	X	X	X	X	X	X		12	Field filtered 6010B only
OW-403L DUP		1130			N	N	X								3	
GZ-505R		1205			Y	N	X	X	X	X	X	X	X		12	Field filtered 6010B only
GZ-504L		1335			N	N	X	X							6	
OW-402L		1400			N	N	X	X							6	
OW-402R		1435			Y	N	X	X	X	X	X	X	X		12	Field filtered 6010B only
GZ-504R		1435			Y	N	X	X	X	X	X	X	X		12	" "
OW-101		1505			Y	N	X	X	X	X	X	X	X		12	" "
OW-101L		1530			Y	N	X	X	X	X	X	X	X		12	" "
Temperature Blank	10/30/13	—	—	W	N	N								X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify) IV

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 10/9/13	Time: 1110	Method of Shipment:		
Relinquished by:	Date/Time: 10.30.13 / 1800	Company: JFA	Received by: J. Carpenter	Date/Time: 10-31-13 0900	Company: TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 7.1°C

TestAmerica Tallahassee
2846 Industrial Plaza Drive
Tallahassee, FL 32301
Phone (850) 878-3994 Fax (850) 878-9504

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: J. Yeager, N. Feliciano, E. Ortiz	Lab PM: Marks, Amy	Carrier Tracking No(s):	COC No: 640-41336-11114.3
Client Contact: Ms. Jessica Yeager	Phone: 781-278-5833	E-Mail: amy.marks@testamericainc.com		Page: Page 1 of 1
Company: GZA GeoEnvironmental, Inc.				Job #: 640-45643
Address: 249 Vanderbilt Ave	Due Date Requested:			
City: Norwood	TAT Requested (days):			
State, Zip: MA, 02062				
Phone: 781-278-5833(Tel) 781-278-5701(Fax)	PO #: 01-16687			
Email: jessica.yeager@gza.com	WO #:			
Project Name: HP-San German IB	Project #: 64004374			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8010 plus DBM,BB,1112TECA,123TCP	5310C - Total Organic Carbon	RSK_175 - MEE (Dissolved Gases)	SM4500_NO2_B - Nitrite as N	353.2 - Nitrate Nitrite as N	6010B - Dissolved Iron	300_ORGFM_28D - Chloride and Sulfate	Temperature	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S	A	N	S	D	N	N		
Field Blank	10/31/13	1035	G	W	N	N	X								3	
Trip Blank		—			N	N	X								3	
OW-307		1010			Y	N	X	X	X	X	X	X	X		12	field filtered 6010B only
OW-402U		900			N	N	X	X	X	X	X	X	X		12	not enough water for 6010B
GZ-506R		915			Y	N	X	X	X	X	X	X	X		12	field filtered 6010B only
OW-102		825			N	Y	X	X							6	MS/MSD 8260 only
OW-304R		1000			N	N	X	X							6	
OW-304L		1050			Y	N	X	X	X	X	X	X	X		12	field filtered 6010B only
Equipment Blank		1130			N	N	X	X							6	
Temperature Blank														X		

640-45642 Chain of Custody

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

Sample Disposal (A fee may be assessed if sa
☐ Return To Client ☒ Disposal By La

Deliverable Requested: I, II, III, IV, Other (specify) IV

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 10/9/13	Time: 1110	Method of Shipment:	
Relinquished by:	Date/Time: 10.31.13/1500	Company: GZA	Received by:	Date/Time: 11/1/13 0800 Company: TAL
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: Company:

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 9.3°C

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45593
List Number: 1
Creator: Carpenter, Jonnie T

List Source: TestAmerica Tallahassee

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	Insufficient volume received for requested analysis.
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45593
List Number: 1
Creator: Chea, Vandy

List Source: TestAmerica Pensacola
List Creation: 10/31/13 04:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6°C IR2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45593
List Number: 1
Creator: Contreras, Cesar A

List Source: TestAmerica Savannah
List Creation: 10/31/13 11:21 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45593
List Number: 1
Creator: McNulty, Carol

List Source: TestAmerica Tampa
List Creation: 10/31/13 10:33 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45619
List Number: 1
Creator: Carpenter, Jonnie T

List Source: TestAmerica Tallahassee

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Refer to Job Narrative for details.
Cooler Temperature is recorded.	True	7.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	False	Limited volume received.
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45619
List Number: 1
Creator: Crawford, Lauren E

List Source: TestAmerica Pensacola
List Creation: 11/01/13 05:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45619
List Number: 1
Creator: Conner, Keaton

List Source: TestAmerica Savannah
List Creation: 11/01/13 12:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45619
List Number: 1
Creator: McNulty, Carol

List Source: TestAmerica Tampa
List Creation: 11/01/13 03:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45642
List Number: 1
Creator: Carpenter, Jonnie T

List Source: TestAmerica Tallahassee

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Refer to Job Narrative for details.
Cooler Temperature is recorded.	True	9.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45642
List Number: 1
Creator: Crawford, Lauren E

List Source: TestAmerica Pensacola
List Creation: 11/02/13 01:17 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45642
List Number: 1
Creator: Contreras, Cesar A

List Source: TestAmerica Savannah
List Creation: 11/02/13 11:27 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GZA GeoEnvironmental, Inc.

Job Number: 640-45593-1
SDG Number: 45593

Login Number: 45642
List Number: 1
Creator: Price, Rodney

List Source: TestAmerica Tampa
List Creation: 11/02/13 09:17 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX F

DATA VALIDATION

Data Validation

In accordance with Revision 3 of the Quality Assurance Project Plan (QAPP) submitted by GZA GeoEnvironmental, Inc. (GZA) in May 2010, groundwater analytical data for volatile organic compounds (VOCs) collected in October 2013 were analyzed by TestAmerica Laboratories, Inc. in Tallahassee, Florida (NELAC E81005), certified by a Puerto Rico-certified chemist, and validated by a GZA chemist. GZA performed a data validation in accordance with the U.S. Environmental Protection Agency (EPA) Region II Data Validation Standard Operating Procedure (SOP) #HW-33 (located on the EPA Region II webpage at *http://www.epa.gov/region02/qa/documents.htm*). The criteria for accepting, rejecting, or qualifying data are included in the SOP. The intrinsic biodegradation (IB) results presented in Table 2 were not certified by a Puerto Rico-certified chemist or validated by a GZA chemist. Only the target analytes were reviewed in the data validation. Overall, the quality assurance/quality control (QA/QC) results met the limits established by the QAPP.

For the October 2013 groundwater sampling event, groundwater samples[1] were collected from thirty-four wells during the period of October 29 through 31, 2013 and analyzed via the USEPA 8260C Method. The data were reported in sample delivery group (SDG) 45593[2]. This data validation includes evaluations of QA/QC samples, surrogate recoveries, holding time, preservation, laboratory reporting limits (RLs), internal standard area counts and retention times, initial calibration (ICAL) relative response factors (RRFs) and relative standard deviations (RSDs), and continuing calibration verification (CCV) RRFs and percent differences (%D) to assess precision, accuracy, completeness, and data usability. The QA/QC samples included temperature blanks, trip blanks, field blanks, an equipment blank, field duplicate samples, laboratory method blanks, Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD), and Matrix Spike (MS)/Matrix Spike Duplicate (MSD) samples, which were collected/prepared and analyzed to assess the potential effects of field sampling conditions, storage and transportation of samples, nature of sample matrix, and laboratory conditions and analysis. The raw data and mass spectra were spot checked for transcription accuracy and analyte identification.

Data accuracy was assessed based on percent recoveries (%R) from spiked samples expressed as a percent of the true or known concentration of the assessed constituent, surrogate recoveries, blank results, CCV, ICAL, and internal standards results. Data precision was estimated by comparing analytical results from field duplicate samples and calculating the relative percent difference (RPD) or absolute difference (AD) of the duplicate results (e.g., LCS/LCSD and MS/MSD).

The laboratory reported that the sample shipments were received at temperatures within the acceptable range, except for the shipments associated with samples DEC-204O, GZ-

[1] Only VOC results were validated and therefore, unless otherwise specified, only VOC results were discussed in this data validation.

[2] Samples were combined into one SDG for Puerto Rico certification purposes. Samples were analyzed in batches of less than 20 samples.

503U, GZ-504L, GZ-504R, GZ-505R, GZ-519U, GZ-601L, GZ-601R, OW-101, OW-101L, OW-301, OW-304U, OW-402L, OW-402R, OW-403L, OW-403L DUP, OW-408, GZ-506U, GZ-506R, OW-102, OW-304L, OW-304R, OW-307, and OW-402U, which were received at 7.1°C and 9.3°C with no ice present. The shipment temperatures were below 10°C; therefore, no qualifiers were added to the data. The project and QA/QC samples were analyzed via the USEPA 8260C Method within the method holding times by the analytical laboratory.

For several samples ((OW-305I (5X[3]), OW-305I DUP (5X), OW-404R (5X for cis-1,2-dichloroethene (cis-1,2-DCE[4]) only), WB-1L (5X for cis-1,2-DCE only), GZ-519U (5X for trichloroethene (TCE[5]) only), OW-101 (20X), OW-307 (10X), GZ-506R (5X for TCE only), OW-304R (20X for cis-1,2-DCE and TCE only), OW-304L (20X for cis-1,2-DCE and TCE only)), the reporting limits were elevated due to dilution requirements needed to obtain on-scale results.

Only the reported analytes and their associated QA/QC components were reviewed in the data quality review.

ACCURACY

Accuracy was assessed through the review of blank sample results, spike and surrogate recoveries, internal standards, ICAL, CCV, mass spectra, and instrument performance checks.

Blanks

The QA/QC program included the analysis of three trip blanks, three field blanks, one equipment blank, and laboratory method blanks corresponding to each analytical batch of samples.

No analytes were detected above RLs in any field blanks or trip blanks. The equipment blank sample was collected by pumping laboratory-quality deionized (DI) water through the decontaminated Grundfos pump. TCE was detected in the equipment blank at 0.30 J[6]. TCE was detected in the associated samples at concentrations above the RL (1.0 microgram per liter (µg/L)); no qualifiers were added.

No reported analytes were detected in the associated laboratory method blank samples.

No qualifiers were added based on the blank sample results.

Spike Recoveries in LCS/LCSD Samples

[3] "X" indicates a dilution times of the preceding number, e.g., "5X" indicates a five times dilution.
[4] cis-1,2-dichloroethene
[5] Trichloroethene
[6] "J" indicates he result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

Spike recoveries were within the control limits established by the QAPP in LCS/LCSD samples analyzed by the laboratory for this monitoring event, except for the following:

The LCS and LCSD recoveries for bromomethane (LCS 188%; LCSD 187% vs. 22-179%) associated with samples GZ-503L, WB-2L, WB-3L, GZ-502L, GZ-515U, WB-4L, GZ-501L, WB-1L, OW-404R, and GZ-505L, and the LCS recovery for bromomethane (LCS 182% vs. 22-179%) associated with samples GZ-601L, OW-304U, OW-301, GZ-601R, GZ-519U, and OW-101 were above the QAPP limits, indicating potential overestimation of the associated bromomethane results. Bromomethane was not detected in any of the associated samples; therefore, no qualifiers were added.

Spike Recoveries in MS/MSD Samples

MS/MSD samples were analyzed at an appropriate frequency (more than 1/20 of project samples). MS/MSD analyses were performed for WB-4L, GZ-601R, OW-101, OW-102, and OW-304R. Spike recoveries were within the control limits established by the QAPP in MS/MSD samples analyzed by the laboratory for this monitoring event, except for those described below:

- The MS recovery of bromomethane in sample WB-4L was above the QAPP limits (141% vs. 23-140%). Bromomethane was not detected in WB-4L; therefore, no qualifiers were added.
- The MS recoveries of cis-1,2-DCE in samples GZ-601R and OW-101 were below the QAPP limits (68% and 44% vs. 70-122%). "J" qualifiers were added to the detected cis-1,2-DCE results in OW-101 and GZ-601R.
- The MS recovery of 1,3-dichlorobenzene in sample OW-101 was below the QAPP limits (69% vs. 70-137%). A "UJ"[7] qualifier was added to the non-detect result for 1,3-dichlorobenzene in OW-101;
- The MS recovery of TCE in samples OW-101 was below the QAPP limits (35% vs. 70-131%). A "J" qualifier was added to the detected TCE result for OW-101; and
- The MS/MSD recoveries of TCE in sample OW-304R were outside the QAPP limits (50%/55% vs. 70-131%). "J" qualifiers were added to the detected TCE results for OW-304R;

Surrogate Recoveries

The surrogate recoveries associated with groundwater samples for this monitoring event were within the control limits established by the QAPP.

Internal Standards

[7] "UJ" indicates the analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Internal standard area counts and retention times were within the method limits of 50-200% of the initial calibration sequence areas and ±30 seconds from the retention time of the internal area in the initial calibration, respectively, in accordance with the QAPP.

Initial and Continuing Calibrations

The ICAL %RSD values were within the QAPP-established limit of ≤20%, and the RRFs were above the minimum RRF criteria established by the QAPP for all reported analytes.

The CCV %D was outside the QAPP-established limit of ±20% for dichlorodifluoromethane (24%), bromomethane (-34%), carbon tetrachloride (23%), trans-1,3-dichloropropene (25%), dibromochloromethane (25%), and bromoform (34%) associated with samples OW-305I and OW-305I DUP; for bromomethane (-37%) associated with samples GZ-504L, OW-402L, and OW-402R; for carbon tetrachloride (27%), trans-1,3-dichloropropene (22%), dibromochloromethane (21%), and bromoform (28%) associated with sample GZ-503U; for bromomethane (72%), carbon tetrachloride (25%), dibromochloromethane (22%), 1,1,1,2-tetrachloroethane (25%), and bromoform (33%) associated with samples GZ-503L, WB-2L, WB-3L, GZ-502L, GZ-515U, WB-4L, GZ-501L, WB-1L, OW-404R, and GZ-505L; for chloromethane (38%) associated with samples GZ-601L, OW-304U, OW-301, GZ-601R, GZ-519U, and OW-101; for bromomethane (24%), carbon tetrachloride (25%), and bromoform (27%) associated with samples OW-101L, OW-403L, OW-403L DUP, OW-408, DEC-204O, GZ-506U, GZ-505R, and GZ-504R. "UJ" qualifiers were added to the associated non-detects based on the CCV results[8]. The RRFs were above the associated minimum RRF established by the QAPP for all reported analytes.

Mass Spectra

The mass spectra for chloroform in sample GZ-506R; for trans-1,2-dichloroethene in samples GZ-503L, WB-2L, WB-3L, GZ-502L, GZ-601R, and GZ-504L; for dichlorodifluoromethane in sample GZ-506R; for 1,1-dichloroethene in samples OW-403L, OW-403L DUP, OW-304R, and OW-304L; and for chloroethane in sample OW-304U exhibited discrepancies between the respective reference spectrum and sample spectrum. The results were confirmed by the laboratory.

Instrument Performance Check

All data generated were analyzed within the twelve hour calibration interval after the associated instrument performance check bromofluorobenzene (BFB) injections.

No other data quality issues were identified.

PRECISION

[8] No qualifiers were added to non-reported analytes for "DL" samples.

Precision was quantitatively assessed through evaluation of field and laboratory duplicate results.

Field Duplicates

Two field duplicate pairs of samples (OW-305I/OW-305I DUP and OW-403L/OW-403L DUP) were collected during the sampling event. The RPDs were calculated for the analytes that were detected in both samples of the duplicate pair using the following equation:

$$RPD = \left| 2 * 100 * \frac{S_1 - S_2}{S_1 + S_2} \right|$$

Where:

S1 = primary sample result, and
S2 = duplicate sample result.

Calculated RPDs are only applicable when the sample values are greater than or equal to two times the respective analytical RLs. For the sample duplicate pairs with values greater than or equal to two times the RL, the precision goal is a calculated RPD less than 20%. For the primary and duplicate sample results that are less than two times the respective analytical RL, the precision goal is met when the absolute difference (AD) between the results is less than two times the RL. The calculated RPDs and ADs for primary and duplicate samples met these requirements for this monitoring event, except for vinyl chloride, cis-1,2-DCE, and TCE for OW-305I; "J" qualifiers were added to the vinyl chloride, cis-1,2-DCE, and TCE results for OW-305I and OW-305I DUP.

Laboratory Control Spike and Matrix Spike Duplicates

The RPDs for the LCS/LCSD and MS/MSD pairs associated with groundwater samples for this monitoring event were within analyte-specific control limits established by the QAPP, except for the following:

The MS/MSD RPDs for 1,1,1,2-tetrachloroethane associated with sample OW-101 (MS/MSD RPD 26% vs. 20%) and 1,2,3-trichloropropane associated with sample OW-101 (MS/MSD RPD 27% v. 20%) were outside the laboratory control limits. The MS/MSD recoveries for 1,2,3-trichloropropane and 1,1,1,2-tetrachloroethane were within the QAPP limits; therefore, no qualifiers were added associated with the MS/MSD RPD exceedances.

COMPLETENESS

Groundwater samples were successfully obtained from each monitoring well targeted for sampling during the sampling round except for GZ-504U, WB-1U, and OW-305U, which were dry or had insufficient volumes of water. The laboratory reported the requested analyses, and the deliverable data reports were complete; therefore, the

analytical data are considered valid and useable unless otherwise noted.

Completeness is the ratio of the number of valid sample results to the total number of samples analyzed within a specific matrix and/or analysis. The percent complete is calculated by the following equation:

$$\%\,Complete = \frac{(number\ of\ valid\ measurements)}{(number\ of\ measurements\ planned)} * 100$$

Because all of the analytical data are considered valid and useable, the percent complete for the results presented in this report is 100 percent for all analyses, which meets the QC goal of 90 percent. The sufficiency of valid results to meet project objectives for the analysis of analytes will continue to be evaluated during future sampling events.

DATA QUALITY SUMMARY

The field and laboratory quality control results indicate that the sampling and analyses performed in generating the data for this groundwater sampling round were generally consistent with the analytical methods and provided data suitable for project objectives. Where appropriate, data were qualified based on GZA's review as recommended in the USEPA Region II SOP. The data are acceptable, and can be used for decision-making purposes. The limitations identified by the applied qualifiers, however, should be considered when using the data.

REFERENCES

GZA, 2010, Quality Assurance Project Plan, Revision 3, Hewlett-Packard Voluntary Remedial Actions, San German, Puerto Rico (submitted as Appendix D of Intrinsic Biodegradation Study Work Plan), May.

USEPA Region II, 2013, SOP #HW-33 Revision 3, Low/Medium Volatile Data Validation, March.

J:\23,000-24,999\24065\24065-13.JAC\Semi-Annual Reports\Q1-Q2 2013\Appendices\Appendix F - Data Validation\Appendix F - Data Validation.docx

APPENDIX G

DNER CLOSURE REPORT

JFA Geological & Environmental Scientists, P.S.C.

P.O. Box 250423
Aguadilla, PR 00604-0423
State Road 107, Km. 3.1
Borinquen Ward, Aguadilla, PR
Tel. 787 882-3762
Fax 787 882-5456

DRNA
DEC 04 2013
RADICACIONES

JFA Job No. 419-13

4 de Diciembre de 2013

Mr. Nelson Velázquez Reyes
Secretario Auxiliar, Permisos, Endosos y Servicios Especializados
Departamento de Recursos Naturales y Ambientales
PO Box 366147
San Juan, PR 00936

Re: Reporte Terminación Obras, Permiso O-FA-PSP07-SJ-00099-28052013

Estimado Señor Velázquez:

Nuestra firma JFA Geological & Environmental Scientists, P.S.C. (JFA) está a cargo de la Operación y el Mantenimiento (O&M) del Proyecto de Remediación Voluntaria de la compañía Hewlett-Packard (HP) en las facilidades de la Antigua Digital Equipment Corporation (DEC) en San Germán, Puerto Rico.

A nombre de HP, JFA somete el Reporte de Terminación de Obras para el permiso que aparece en el epígrafe. Adjunto encontrará copia del permiso para su referencia, el Formulario para la Terminación de Obras completado y certificado por el personal a cargo del proyecto con sus respectivos anejos.

Cualquier duda o comentario, puede comunicarse con el que suscribe al 787-882-3762.

Cordialmente,

Nelson Feliciano, B.S.
Científico Ambiental, JFA

ANEJO A. Permiso O-FA-PSP07-SJ-00099-28052013

ESTADO LIBRE ASOCIADO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

OCT 0 8 2013

PERMISO DE SELLADO DE POZO

JFA Geological & Environmental Scientists, P.S.C.
P. O. Box 250423
Aguadilla, Puerto Rico 00604-0423

PERMISO NÚMERO: O-FA-PSP07-SJ-00099-28052013

El solicitante en epígrafe radicó ante este Departamento una solicitud para sellar tres (3) pozos de investigación ambiental, llamados W1, W7, W8, ubicados en terrenos propiedad de la Compañía de Fomento Industrial, localizados en la Carr. PR-362, Km. 0.1, del Bo. Caín Alto en el municipio de San Germán.

Vista la solicitud y la metodología a emplearse en el sellado del pozo, el Departamento de Recursos Naturales y Ambientales en virtud de los poderes que nos confiere la Ley Núm. 23 de 20 de junio de 1972 y la Ley Núm. 136 de 3 de junio de 1976, según enmendadas, CONCEDE el permiso de sellado, al Solicitante (en adelante el Concesionario) para sellar tres (3) pozos de investigación ambiental en el lugar arriba indicado, conforme con las siguientes condiciones:

CONDICIONES GENERALES

1- El Concesionario permitirá al personal del Departamento la inspección del sellado de los tres (3) pozos de monitoreo, aquí autorizados y someterá la información que se le solicite con relación a los mismos.

2- Este permiso o copia de éste con el Sello del Departamento al relieve, estará disponible para ser inspeccionado en el lugar del sellado de los pozos, durante todo el tiempo en que se realice la obra.

3- Dentro de un período no mayor de treinta (30) días de finalizado el sellado de los pozos de monitoreo, el Concesionario someterá a este Departamento un Informe de Terminación de Obras. Este informe será firmado y certificado correcto por el contratista o ingeniero a cargo de las obras.

NVR

4- El Concesionario informará por escrito al Departamento sobre cualquier suceso que pueda afectar adversamente los recursos de agua o la salud y seguridad pública y que surja como resultado del sellado del pozo.

5- El Concesionario vendrá obligado a responder por los daños que pueda irrogarle a terceras personas o a la propiedad pública o privada en el proceso de sellado y/o utilización de las obras autorizadas.

6- Este permiso estará sujeto a enmienda, suspensión o revocación por este Departamento conforme con el Reglamento para el Aprovechamiento, Uso, Conservación y Administración de las Aguas de Puerto Rico. No se entenderá que impone obligación alguna al Estado Libre Asociado de Puerto Rico o sus funcionarios a indemnizar al Concesionario por los daños que pueda sufrir como consecuencia de enmienda, suspensión o revocación.

7- Este permiso no podrá ser transferido sin la autorización previa del Departamento de Recursos Naturales y Ambientales.

CONDICIONES ESPECIALES

1- Se autoriza al Concesionario al sellado de tres (3) pozos de investigación ambiental a nivel freático.

2- Este Permiso se concede por un término de un (1) año el cual comenzará a partir de su fecha de aprobación.

3- El Concesionario deberá sellar los pozos, de acuerdo a los procedimientos propuestos en su solicitud y conforme con lo especificado en el Artículo 48 del documento titulado "Manual of Water Well Construction Practices, EPA-570/9-75-001".

4- El Concesionario notificará a la División de Permisos y Franquicias de Agua de este Departamento, al teléfono (787) 999-2200, ext. 2804, la fecha de comienzo de las obras autorizadas en este permiso.

5- Una vez concluidos los trabajos de sellado, el Concesionario deberá someter a la Secretaria, un Informe donde notifique la terminación de la obra aquí autorizada, acompañada de una descripción detallada de los trabajos realizados.

6- El Concesionario deberá **someter fotos, a corta y a larga distancia** que demuestren el sellado de los pozos.

Se advierte que el aprovechamiento de las aguas, para uso doméstico, que podrían ser extraídas bajo esta franquicia, está sujeto a cumplir con el Reglamento General de Salud Ambiental del Departamento de Salud.

En el caso de que el(la) concesionario(a) haya cometido infracciones, el otorgamiento de esta franquicia no constituye una renuncia del DRNA a instar acciones legales o a continuar acciones judiciales o procedimientos administrativos cuasi judiciales que se hayan iniciado contra el(la) concesionario(a).

El Concesionario tendrá derecho a solicitar una reconsideración a la determinación del Departamento o una vista administrativa de acuerdo con las disposiciones del Artículo 13 del Reglamento para el Aprovechamiento, Uso, Conservación y Administración de las Aguas de Puerto Rico, de no estar de acuerdo con algunas de las Condiciones del presente Permiso. La Solicitud deberá ser radicada por escrito dentro de un término de treinta (30) días a partir de la aprobación de este Permiso en la Oficina de Secretaría del Departamento. De no recibirse dentro del término aquí establecido, una solicitud de vista administrativa u objeción, se entenderá que el Concesionario aceptó el permiso con todas sus cláusulas y condiciones.

Cualquier violación a la Ley Número 23 del 20 de junio de 1972, a la Ley 136 del 3 de junio de 1976, y a la Ley Número 416 del 22 de septiembre de 2004, según enmendadas, o el incumplimiento de cualesquiera de las condiciones en la presente Resolución podrá conllevar la revocación de este permiso.

Notifíquese:

Nelson Velázquez Reyes
Secretario Auxiliar
Secretaría Auxiliar de Permisos, Endosos y Servicios Especializados

Aprobado hoy 8 de Octubre de 2013.

ANEJO B. Formulario Terminación Obras

DEPARTAMENTO DE RECURSOS NATURALES Y AMBINETALES
SECRETARÍA AUXILIAR DE PERMISOS, ENDOSOS
Y SERVICIOS ESPECIALIZADOS
DIVISIÓN DE PERMISOS Y FRANQUICIAS DE AGUA

INSTRUCCIONES GENERALES PARA COMPLETAR INFORME DE TERMINACIÓN DE OBRAS PARA POZOS

Complete las partes núm. 2 y núm. 3 para cada uno de los pozos autorizados en la Resolución de Permiso de Construcción de pozo. Asegúrese de que todos los anejos incluidos sean claros, precisos y leibles. Los términos utilizados en el informe se describen a continuación:

DUEÑO O USUARIO Esta información deberá coincidir con la indicada en el permiso de construcción de pozo otorgado por el Departamento.

DISEÑO Y CONSTRUCCIÓN DEL POZO En la columna de "tipo y tamaño" de las perforaciones, especifique el tamaño de la perforación y la camisilla.

SELLO SANITARIO Especifique la profundidad desde la superficie a la parte inferior del sello. Los intervalos de roca sellados se refieren a aquellas partes del pozo sellado para evitar contaminación o para evitar la mezcla de agua proveniente de distintos estratos productivos.

CERTIFICACIÓN Es imprescindible que este informe sea certificado por el ingeniero o contratista a cargo de la construcción del pozo. Esta persona deberá llenar este informe y certificar el mismo. Todo informe que no esté debidamente certificado será devuelto al solicitante. NO SE OTORGARÁ NINGUNA FRANQUICIA PARA APROVECHAMIENTO DE AGUAS PÚBLICAS SI ESTE INFORME NO HA SIDO ACEPTADO POR ESTE DEPARTAMENTO.

El Departamento solicitará información adicional cuando lo considere necesario para completar la evaluación de la solicitud de Franquicia pendiente.

Todo informe será radicado ante el Departamento de Recursos Naturales y Ambientales o enviado por correo no más tarde de 30 días de finalizada la obra, a la siguiente dirección:

DEPARTAMENTO DE RECURSOS NATURALES Y AMBIENTALES
DIVISIÓN DE PERMISOS Y FRANQUICIAS DE AGUA
P.O. BOX 366147
SAN JUAN, P.R. 00936

En caso de dudas sobre este informe puede escribir a la dirección anterior o llamar al teléfono 787-999-2200, extensión 2802 ó 2803.

INFORME DE TERMINACIÓN DE OBRAS PARA POZOS

I. DATOS DEL DUEÑO DE LOS TERRENOS O USUARIO DEL POZO

A. Dueño de los terrenos

Nombre Puerto Rico Industrial Development Company

Dirección Postal PO Box 362350 San Juan, PR 00918

Dirección Residencial State Road PR-362, Km. 0.1, Caín Alto Ward, San Germán , PR

Número Teléfono Residencial _____

Número Teléfono Trabajo 787-758-4747

B. Usuario (de ser igual al dueño, indique igual):

Nombre: Hewlett Packard Corporation

Número Teléfono Residencial: _____

Número Teléfono Trabajo: 1-281-518-8650

Dirección Residencial: 3404 East Harmony Road Mail Stop 13, Fort Collins, CO 80528

Número de Permiso Construcción de Pozo: O-FA-PSP07-SJ-00099-28052013

Si posee una Franquicia de Agua, indique el número: RO-16-06-03-PFRE-70132

Indique el número de pozos construidos: Tres (3) Pozos Sellados

II. DATOS DEL POZO (DISEÑO Y CONSTRUCCIÓN)

A. Tipo de acción tomada:

Sellado __X___

construcción _____

profundización _____

rehabilitación pozo existente_____

B. Localización: Ver Anejo A.

Municipio San Germán **Barrio** Caín Alto

Carretera PR-362 **kilómetro** 0.1

Nombre o número asignado al pozo por el dueño o usuario: A) W-1; B) W-7; C) W-8

Coordenadas: latitud 18°05'19.38" N **longitud** 67°02'13.19 W (aproximada)

Elevación del terreno sobre el nivel del mar: 151 **pies** (aproximada)

C. Fecha en que concluyó la construcción del pozo: 12 / 11 / 2013
(día / mes / año)

D. Método de construcción:

a mano_____

rotatorio_____

percusión_____

otro SELLADO

Explique Ver Anejo B.

E. Perfil Litológico (de ser necesario use hojas adicionales): NO APLICA

Intervalos	Material Geológico
de_____a_____pies	_____
de_____"_____"	_____
de_____"_____"	_____
de_____"_____"	_____

* Indique los intérvalos que producen agua.

** Describa el tipo de roca perforada por color, tipo de material, dureza, etc.

F. Tipo de camisilla: Ver Anejo C.

acero_____ plástico_____ hormigón_____
otro_____ especifique_____

G. Especificaciones del pozo: Ver Anejo C.

	profundidad (pies)	diámetro (pulg.)	material
barreno	de_____a_____	_____	
	de_____a_____	_____	
	de_____a_____	_____	
camisilla	de_____a_____	_____	_____
	de_____a_____	_____	_____
	de_____a_____	_____	_____
rejilla	de_____a_____	_____	_____
filtro grava	de_____a_____	_____	_____

H. Profundidad final del pozo: _____ pies. Ver Anejo C.

I. Sello sanitario: NO APLICA.

Dimensiones, en pies, del sello sanitario sobre la superficie del terreno:
espesor_____ largo_____ancho
Profundidad del sello sanitario bajo la superficie del terreno:_____ pies.
Material usado para el sello e intérvalos del pozo sellados:

Intérvalo	Material Usado
De _____pies hasta_____pies	_____
De _____" " _____ "	_____
De _____" " _____ "	_____

III. DATOS DEL POZO (BOMBEO Y PRODUCCIÓN): NO APLICA.

A. Prueba de bombeo
Incluya los datos del nivel del agua vs. tiempo.
Fecha de inicio de la prueba: ____/____/_____; _____
día mes año hora
Tiempo de duración de la prueba de bombeo:_____horas
Nivel del agua antes de comenzar la prueba:_____pies
Razón de extracción durante la prueba:_____gal/min
Nivel del agua (nivel dinámico) al finalizar el bombeo: _____pies
Nivel de agua alcanzado, luego de finalizado el bombeo y recuperado el sistema:_____pies

Tiempo de recuperación del sistema:
_____horas_____min.

B. Indique si se realizó una prueba de acuífero:
_____no_____si

Incluya anejo en donde detallará el número de pozos de observación utilizados, la distancia de estos pozos al pozo de producción y los datos del nivel del agua vs. tiempo para cada uno de los pozos.

Fecha de inicio de la prueba:____día____mes____año.
Hora de inicio de la prueba:_____.
Tiempo de duración de la prueba:_____horas.

C. Análisis de calidad de agua del (los) pozo(s):
Incluya copia del análisis de calidad certificado por un químico licenciado.

D. Especificaciones del motor y la bomba

Marca y modelo del motor:_____
Capacidad del motor:_____HP
Marca y modelo de la bomba:_____
Capacidad de la bomba:_____gal/min.
Profundidad a que se instaló la bomba:_____pies
Incluya gráfica de curvas de eficiencia de la bomba

E. Metro de flujo instantáneo y/o acumulativo

Marca:
Número de serie:
Modelo:
Unidades de medida del metro:_____
Lectura instantánea
Lectura acumulativa registrada:_____
Factor de conversión:_____
Fecha de instalación:_____

CERTIFICACIÓN

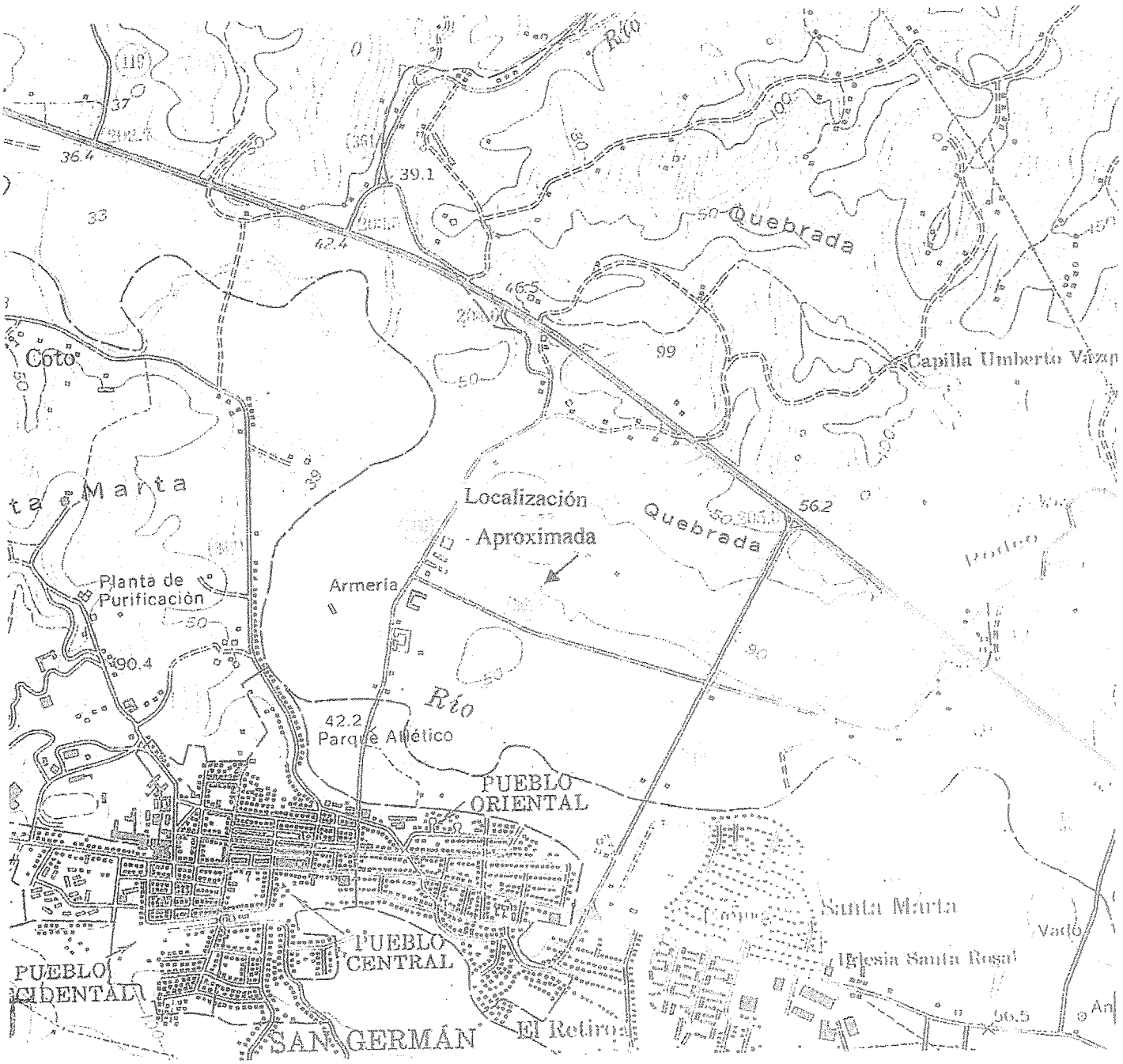
Certifico que este pozo fue construido bajo mi supervisión y que la información declarada en este informe es cierta y correcta según mi mejor entender y conocimiento.

Diciembre, 2013
Fecha

Jaime Feliciano, P.G., Lic. Núm. 006
firma del contratista o ingeniero a cargo de las obras

Nombre del contratista o ingeniero a cargo de las obras: JFA Geological & Environmental Scientists, PSC
Dirección postal: PO Box 250423
Aquadilla, PR 00604-0423

ANEJO A.



JFA Geological & Environmental Scientists, P.S.C.

Anejo A. Localización aproximada, HP Voluntary Remediation Project Site.
(Adapted from the 1966-USGS, San Germán Topographic Quadrangle. Approximate scale 1:20,000)

360
PRASA-WWTP
AEE
Well W-1
Well W-8
362
Well W-7
HP-SGO Site
National Guard Reserve
© 2013 Google
Image U.S. Geological Survey
Google earth

ANEJO B.

Procedure for Well Abandonment – W-1, W-7, and W-8 San German, Puerto Rico

Dated April 25, 2013

JFA Geological & Environmental Scientists, PSC under contract to GZA GeoEnvironmental, Inc. (GZA) and on behalf of Hewlett-Packard Company shall decommission water production wells W-1, W-7, and W-8 located at the former Digital Equipment Corporation[1] facility in San German, Puerto Rico. Wells W-1, W-7, and W-8 were drilled to a total depth of approximately 350[2] feet below ground surface (ft bgs). The boreholes extend through Saprolite and weathered volcanic bedrock into competent bedrock. The attached figure shows the construction details of W-8. Construction details for W-1 and W-7 are not available.

These wells are being decommissioned in order to restore the hydrogeologic conditions that existed prior to well drilling and construction. More specifically, the permanent closure is intended to prevent:

- Mixing and vertical movement of groundwater within an open bedrock borehole;
- Entry of contaminated and polluted water; and
- Induced percolation/infiltration of surface water along the outside of the casing or through the original well opening (National Water Well Association, 1998).

These wells shall be decommissioned in accordance with the applicable US Environmental Protection Agency (USEPA) regulations, using the following procedures and must be sampled for volatile organic compounds (sampling is to be done no greater than 6 months) prior to abandonment.

W-8 Decommissioning

Well W-8 consists of an 8-inch diameter steel casing to approximately 20 ft bgs followed by 8-inch PVC casing and sand-packed screen to approximately 80 ft bgs installed in a 10-inch diameter borehole. The remainder of the borehole consists of a 7.75-inch diameter open hole in bedrock to a total depth of 350 ft bgs. The well contains a 3-inch diameter pump column with threaded couplings to a depth of approximately 230 ft bgs. Between the PVC well casing and the open bedrock borehole is a packer assembly. The pump column extends through the packer assembly. A submersible pump is attached to the end of the pump column. See the attached

[1]Digital Equipment Corporation was acquired by Compaq Computer Corporation and in 2003 Compaq Computer Corporation merged with Hewlett-Packard Company.

[2] The total open depth of W-7 is about 161 feet based on field observations during the installation of a new pump and motor in W-7 during the week of June 8, 2009. It is believed that the original depth of W-7 was on the order of 350 feet, but this total depth has never been confirmed. The current, shallower open depth of 161 feet is believed to be the result of a borehole collapse below that point.

figure from Safety Construction & Engineering, Inc. for additional information on well construction.

1. Remove the existing well materials, including the pump-column, pump and the packer assembly.
2. Seal the open 7.75-inch diameter bedrock borehole (to approximately 80 ft bgs) by pumping a neat cement-bentonite grout mixture (approximately 15 lb. of cement/gal, plus 2-5% (by weight) of bentonite) through a grout pipe or tremie tube lowered to the bottom of the borehole. Keep the grout pipe or tremie tube submerged at least 20' below the top of the grout during placement of the grout. The grout shall be pumped to the wells with a grout pump capable of 50 gpm and 500 psi. Allow at least 24-hours for the grout to set-up.
3. Using a CME-55 rig, or equivalent, remove the steel casing. Using a 10-inch roller bit, drill out the PVC casing screen and sand pack.
4. Promptly thereafter, seal the 10-inch diameter well bore using a neat cement-bentonite grout mixture. Grout should be emplaced using a grout pipe or tremie tube. Lower the tremie tube to the bottom of the 10-inch diameter well bore and grout to the ground surface.
5. Allow at least 24-hours for the grout to set-up. Finish the well decommissioning with a concrete cap at the surface.

W-1 Decommissioning

It is assumed that W-1 is constructed with an 8-inch steel casing to approximately 80 ft bgs. The well contains a pump column and pump. W-1 is located inside a shed. The walls of the shed may need to be dismantled for access.

1. Remove the existing well materials, including the pump-column and pump.
2. Seal the borehole by pumping a cement-bentonite grout mixture through a grout pipe or tremie tube lowered to the bottom of the borehole (see details provided in W-8 decommissioning above). Keep the grout pipe or tremie tube submerged at least 20' below the top of the grout during placement of the grout. Grout to the top of the casing (at or above ground surface).
3. Using a CME-55 rig, or equivalent, attempt to pull the 8-inch steel casing.
4. As the casing is removed, routinely (at least every 20') refill the casing to the ground surface with grout. Once the casing is fully removed, promptly top off the hole with grout. If the casing cannot be extracted, the grout will be allowed to set and then topped off to the ground surface with the casing in place. The casing shall then be cut at least two ft bgs, removing that 2-foot section.

5. Allow at least 24-hours for the grout to set-up. Finish the well decommissioning with a concrete cap at the surface.

W-7 Decommissioning

It is assumed that W-7 is constructed with an 8-inch steel casing to approximately 80 ft bgs. The well contains a pump column and pump. W-7 has an obstruction at 161 ft bgs.

1. Remove the existing well materials, including the pump-column and pump.
2. Using a down-hole camera, inspect the well and obstruction at 161 ft bgs for the ability to get a tremie pipe past the obstruction.
3. If the tremie pipe cannot be maneuvered past the obstruction, seal the borehole as described for W-1 above at 161 ft bgs.

Reference

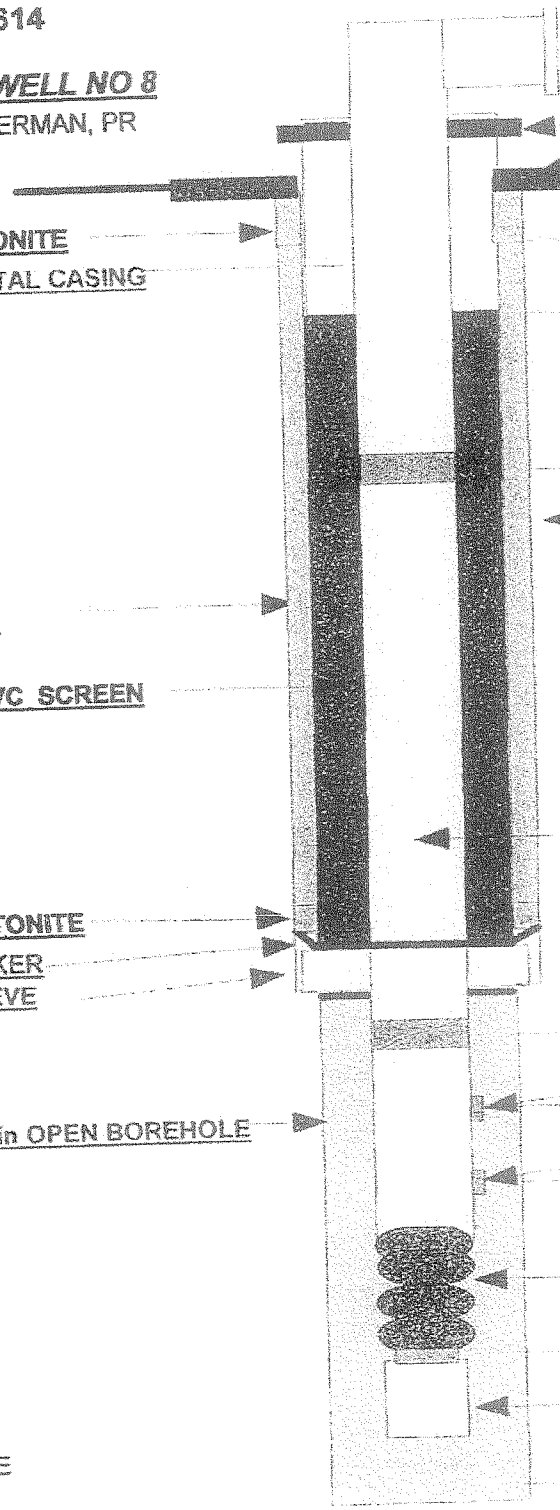
National Water Well Association, 1998. Manual of Water Well Construction Practices, Washington, D.C., U.S. Environmental Protection Agency. 570/9-75-001.

J:\23,000-24,999\24065\24065-13.JAC\Well Abandonment\San German Procedure for Well Abandonment for Contract.docx

SAFETY CONSTRUCTION & ENGINEERING, INC.
P.O. BOX 883
MANATI, P.R. 00674

Ph: 854-3720
Fax: 884-5614

GZA WELL NO 8
SAN GERMAN, PR



ELEV. F
0
10
20
44
170
182
222
237
350

NOT TO SCALE

ANEJO C.

Departamento Recursos Naturales y Ambientales

Informe Terminación de Obras

Permiso Sellado Pozo:

O-FA-PSP07-SJ-00099-28052013

ANEJO C

Datos Pozo W-1:

Profundidad-318ft

Diámetro Barreno- Diez (10) pulgadas

Camisilla- Acero (0-49ft); Ocho (8) pulgadas de diámetro

Rejilla-Datos indeterminados

Datos Pozo W-7:

Profundidad-247ft

Diámetro Barreno- Diez (10) pulgadas (0-130ft)/7.75" de 130-247ft

Camisilla- Acero (0-59ft); Ocho (8) pulgadas de diámetro

Rejilla-Acero (59-130ft); Ocho (8) pulgadas de diámetro

Datos Pozo W-8:

Profundidad-347ft

Diámetro Barreno- Diez (10) pulgadas (0-78ft)/7.75" de 78-347ft

Camisilla- Acero (0-16ft); Ocho (8) pulgadas de diámetro

Rejilla-PVC (16-78ft); Ocho (8) pulgadas de diámetro

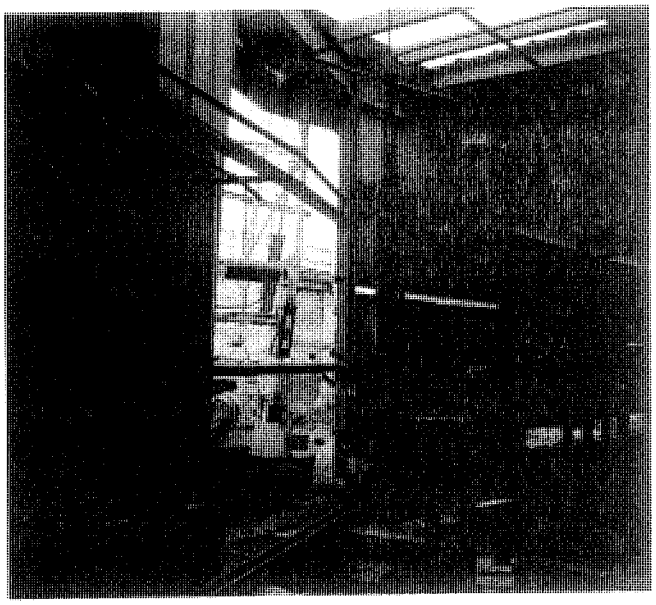


Photo W-1.1 Removal of equipment from well W-1.

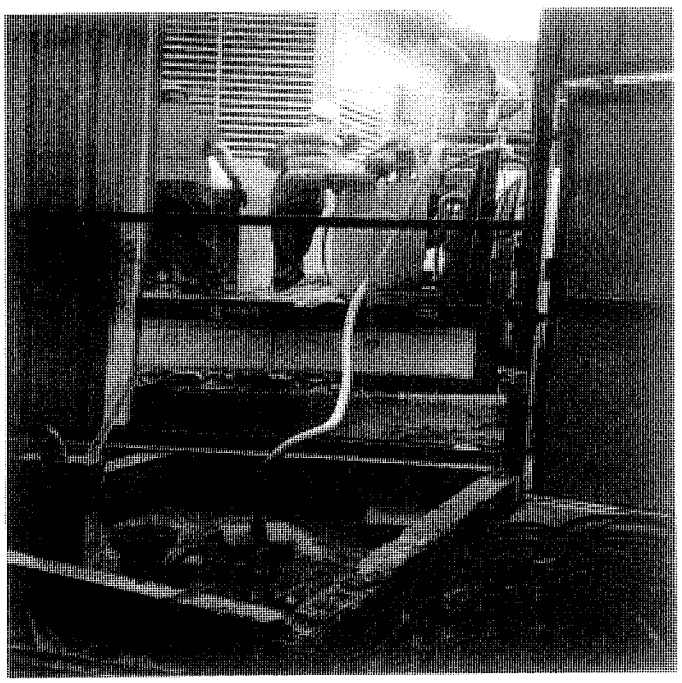


Photo W-1.2 Grouting process at well W-1.

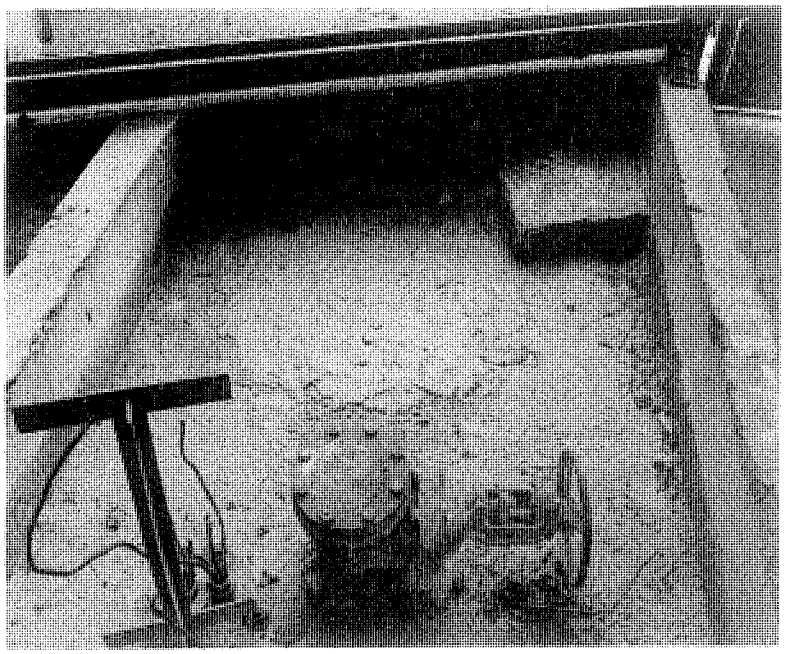


Photo W-1.3 View of flush-to-surface grout seal at well W-1.

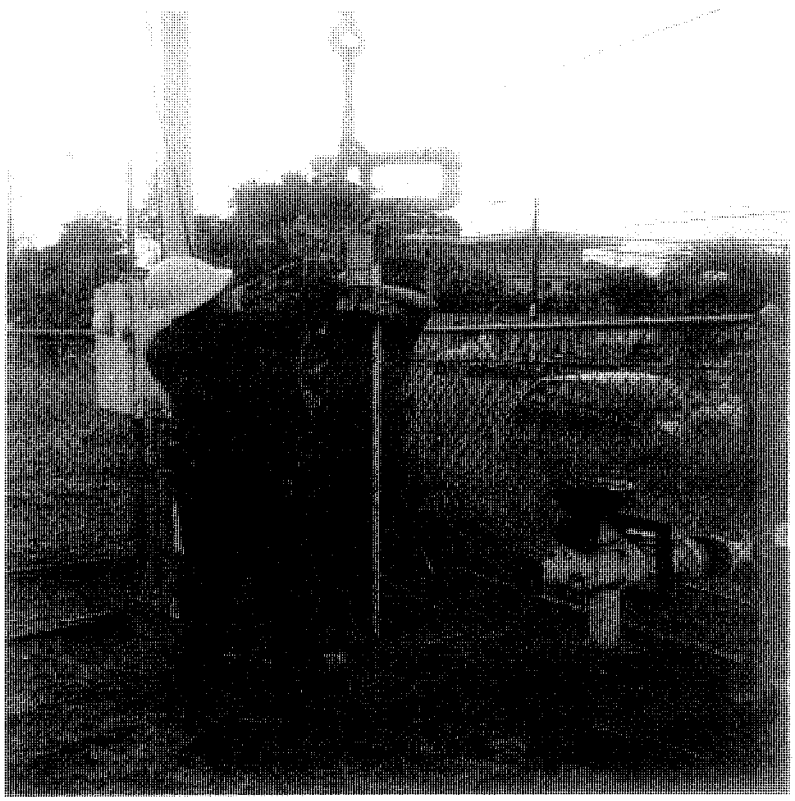


Photo W-7.1 Removal of equipment from well W-7.

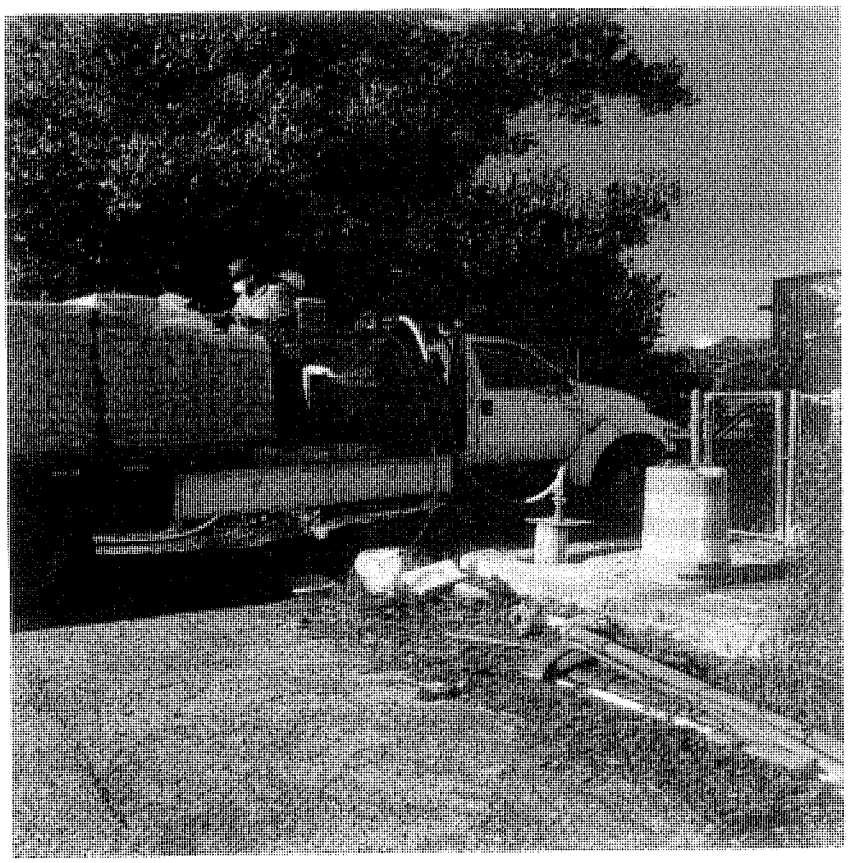


Photo W-8.2 Grouting process at well W-8.

Photo W-8.3 View of flush-to-surface grout seal at well W-8.