INTERA Incorporated
1435 S. St. Francis Drive, Suite 103
Santa Fe, New Mexico 87505 USA
505.428.0066

December 23, 2014

Ms. Dawn Bascomb
NMED Petroleum Storage Tank Bureau
5500 San Antonio Dr. NE
Albuquerque, New Mexico 87109

RE: 1st Semi-Annual Groundwater Monitoring Report, Barelas Bridge Site, Facility #29854; RID #54, 800 Bridge Boulevard Southwest, Albuquerque, Bernalillo County, New Mexico

Dear Ms. Bascomb,

INTERA Incorporated (INTERA) is submitting the above-referenced report. This report completes the scope of work for deliverable identification number 3778-1. There was no reduction in scope associated with WPID # 3778. Once a deliverable acceptance letter is received the total amount that will be invoiced including NMGRT is **$7,963.58**. Also included is a CD containing a copy of the report in PDF format.

INTERA appreciates the opportunity to work with the New Mexico Environment Department. Please do not hesitate to contact Ms. Marcillo (505) 428-0066 / emarcillo@intera.com at (505) 428-0066 or Ms. Joseph Tracy (505) 246-1600 ext. 1219 / jtracy@intera.com if you have any questions or require further information.

Sincerely,

INTERA Incorporated

Eileen Marcillo
Project Manager/Hydrologist

Joseph J. Tracy
Principal Geologist

Enclosure

1ST SEMI-ANNUAL GROUNDWATER MONITORING REPORT

Barelas Bridge Site, Facility # 29854; Release ID # 54

800 Bridge Boulevard Southwest
Albuquerque, Bernalillo County, New Mexico

Prepared for:

New Mexico Environment Department
Petroleum Storage Tank Bureau
5500 San Antonio Dr. NE
Albuquerque, New Mexico 87109

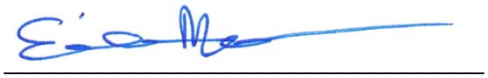
Prepared by:

1435 South St. Francis Drive, Unit 103
Santa Fe, New Mexico 87505

December 23, 2014

STATEMENT OF FAMILIARITY

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.



Eileen Marcillo
Project Manager
INTERA Incorporated

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ACRONYMS AND ABBREVIATIONS

^{o}C	degrees Celsius
^{o}F	degrees Fahrenheit
µg/L	microgram(s) per liter
µS/cm	microSiemens per centimeter
AEHD	Albuquerque Environmental Health Department
amsl	above mean sea level
AS/SVE	air sparge/soil vapor extraction
btoc	below top of casing
DO	dissolved oxygen
EDB	1,2-dibromoethane
EPA	U.S. Environmental Protection Agency
ft	foot or feet
GT	Groundwater Technology
HASP	Health and Safety Plan
HEAL	Hall Environmental Analysis Laboratory
$HgCl_2$	mercuric chloride
HNO_3	nitric acid
INTERA	INTERA Incorporated
LBG	Leggette, Brashears & Graham, Inc.
L/min	liters per minute
LNAPL	light non-aqueous phase liquid
mg/L	milligram(s) per liter
mL	milliliter
mV	millivolt(s)
$Na_2S_2O_3$	sodium thiosulfate
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
ORP	oxidation reduction potential

PPE	personal protective equipment
PSTB	Petroleum Storage Tank Bureau
Report	1st Semi-Annual Groundwater Monitoring Report
RL	reporting limit
Site	Barelas Bridge Site
UST	underground storage tank
VOC	volatile organic compound

1.0 INTRODUCTION

In accordance with the work plan submitted on August 22, 2014, to the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB), INTERA Incorporated (INTERA) is submitting this *1st Semi-Annual Groundwater Monitoring Report* (Report) documenting the field activities at the Barelas Bridge Site (Facility #29854; Release ID # 54) (Site) in Albuquerque, New Mexico (**Figure 1**). All activities were completed by INTERA in accordance with the requirements set forth in NMED PSTB Regulations (20.5 New Mexico Administrative Code [NMAC]) and in the work plan approved by PSTB on October 15, 2014. The deliverable identification number for the groundwater monitoring event and reporting is 3778-1.

1.1 Background

The Site is located at 800 Bridge Boulevard SW in Albuquerque, New Mexico. A gasoline service station has occupied the Site since the 1940s. Investigation and remediation activities have been ongoing since 1989, when petroleum hydrocarbon contamination was encountered during the removal of four underground storage tanks (USTs). Excavation to remove contaminated soil occurred in the former UST pit area (August 1989) and within the former gasoline station area (October 1989). During excavation activities within the former station area, an approximately 100- to 150-gallon waste-oil tank was encountered and removed. New USTs were installed at the Site in 1990 (**Figure 2**). Information pertaining to the type of petroleum fuel stored at the Site was not available (LBG, 1990). A brief summary of investigation and remediation activities completed at the Site is presented below.

- Between August 1989 and August 1990, the Albuquerque Environmental Health Department (AEHD) completed an initial hydrogeologic investigation, which included the advancement of 19 soil borings, four of which were converted to monitoring wells (MW-1 to MW-4), and the collection and chemical analyses of soil and groundwater samples (LBG, 1990).
- From October to December 1990, Leggette, Brashears & Graham, Inc. (LBG), conducted additional hydrogeologic investigation activities, which included the advancement of five soil borings, four of which were converted to monitoring wells (MW-5 to MW-8); the collection and chemical analyses of soil and groundwater samples; and short pumping tests at two monitoring well locations. LBG concluded that the horizontal extent of contamination was delineated; groundwater flow direction was to the south; the southernmost wells, MW-1, MW-2, and MW-3, did not contain petroleum hydrocarbons in groundwater at concentrations that exceed New Mexico Water Quality Control

Commission (NMWQCC) standards; and contaminants of concern included benzene, toluene, ethylbenzene, total xylenes, iron, and manganese (LBG, 1990) (**Figure 2**).

- In August 1992, Groundwater Technology (GT) oversaw the advancement of five soil borings. These borings were completed as multi-purpose wells for use in an air sparging/soil vapor extraction (AS/SVE) pilot test. Results of the AS/SVE pilot test indicated that an AS/SVE system could effectively remediate the source zone; therefore, GT proposed installing a full-scale system (GT, 1992). Based on existing monitoring wells, it appears that the full-scale AS/SVE system was installed. Documents describing this system and its operation were not reviewed.

Periodic groundwater monitoring has been ongoing since the discovery of the release. Results from these monitoring events, including the most recent event in April 2014, indicate that benzene and total naphthalenes still exist in groundwater at concentrations that exceed NMWQCC Standards (Kleinfelder, 2006; CDM, 2014).

1.2 Scope of Work

The scope of work specified in the approved work plan (INTERA, 2014) included the following activities:

- Conduct project planning activities.
- Obtain access agreements with the current Site owner. A copy of the access agreement is included in **Appendix A**.
- Remove caps from all wells to relieve pressure caused by a fluctuating water table.
- Gauge depth to water and total depth at monitoring wells MW-4, MW-7, MW-8, MW-9, VP-2, and VP-5 using an oil-water interface probe.
- Collect groundwater samples from monitoring wells MW-4, MW-7, MW-8, MW-9, VP-2, and VP-5 and analyze samples for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260B, 1,2-dibromoethane (EDB) by U.S. EPA Method 504.1, and dissolved iron, manganese, and lead by U.S. EPA Method 200.7.
- Prepare a report that summarizes all monitoring activities and the resulting data.

The Site-specific Health and Safety Plan (HASP) was developed and reviewed by INTERA staff prior to the initiation of the project and was used during field activities. The HASP was reviewed in detail with all field personnel and used as a guide for the daily health and safety meeting.

1.3 Work Plan Deviations

Two work plan deviations occurred during this 1st semi-annual groundwater monitoring event. The first deviation was that the groundwater sample from monitoring well VP-2 was collected prior to stabilization of the water quality parameters; this occurred for safety concerns because the well is located in a high-traffic area and because the sample was being collected late in the day visibility from vehicular traffic was limited. Monitoring well VP-2 was purged for approximately 45 minutes, resulting in a total volume of four gallons being purged (approximately 5 well casing volumes). Despite the water quality parameters not stabilizing, the groundwater sample collected at monitoring well VP-2 is considered representative of aquifer conditions at this monitoring location.

The second deviation occurred due to an obstruction noted in monitoring well MW-4 at 10.60 feet (ft) below top of casing (btoc); the groundwater sample tubing could not be successfully deployed past this obstruction. The groundwater sample tubing was not set at the mid-point of the saturated screen interval which would be located at approximately 5 ft below the water table per the approved work plan, but rather at approximately 1.5 ft below the water table. Even though the groundwater sample collected at monitoring well MW-4 was not collected at the mid-point of the saturated screen interval it is still considered representative of aquifer conditions at this monitoring location.

1.4 Project Preparation

Upon receipt of authorization to proceed from the NMED PSTB, INTERA performed the following tasks prior to commencing field activities:

- Obtained an access agreement with the current Site owner, Roberts Oil (**Appendix A**).
- Contacted the NMED PSTB project manager, Ms. Dawn Bascomb, and the current property owner 96 hours prior to the commencement of planned on-site activities.
- Obtained required field supplies and tested required field equipment.
- Obtained sample containers from Hall Environmental Analysis Laboratory (HEAL).

2.0 FIELD ACTIVITIES

Field activities for this 1st semi-annual groundwater monitoring event were conducted on December 2, 2014. Work was performed in Occupational Safety and Health Administration Level D personal protective equipment (PPE). A copy of the field notes is included in **Appendix B.**

2.1 Groundwater Level Gauging

Fluid levels were gauged in monitoring wells MW-4, MW-7, MW-8, MW-9, VP-2, and VP-5 on December 2, 2014, using a properly decontaminated oil-water interface probe (**Figure 2**). Fluid level measurements are documented in **Table 1.** Historical fluid levels for monitoring wells not monitored during this event and for monitoring wells that were previously plugged and abandoned are included in **Appendix C**. A potentiometric surface map is provided in **Figure 3.**

2.2 Groundwater Sampling

On December 2, 2014, the following monitoring wells were sampled using low-flow sampling techniques: MW-4, MW-7, MW-8, MW-9, VP-2, and VP-5. Low-flow sampling was completed using a peristaltic pump and dedicated disposable polyethylene and silicone tubing. The tubing intake was lowered into the monitoring well and placed at the center of the saturated, screened interval of each monitoring well sampled. For monitoring wells where the screen interval is unknown (VP-2 and VP-5), the tubing intake was placed at the mid-point of the water column. In accordance with low-flow sampling techniques, the flow rate was kept below 0.5 liters per minute (L/min), and groundwater levels were monitored to ensure that the drawdown did not exceed the recommended drawdown limit of 0.33 ft. The tubing intake at monitoring well MW-4 was not set at the center of the saturated screen interval due to the presence of a rootball obstruction located at 10.60 ft btoc; therefore, the tubing intake was set at approximately 9.50 ft btoc (please see Section 1.3). Groundwater pumped from each monitoring well was conveyed through a flow-through cell where temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP) were measured at regular intervals using a calibrated YSI 556 MPS water quality meter. Once water quality parameters stabilized for three consecutive readings, groundwater samples were conveyed directly from the peristaltic tubing (from the sampling port located immediately before the water quality meter intake) into laboratory-supplied sample bottles. Stabilization was not achieved prior to groundwater sample collection at monitoring well VP-2. The groundwater purged from monitoring wells MW-8, MW-9, and VP-5 was observed to have a petroleum hydrocarbon odor. A record of all water quality parameters recorded during purging and sampling of each monitoring well is documented

in the field forms and field notes; a copy of each is presented in **Appendix B.** Initial and final/stabilized water quality parameter values recorded at each monitoring well prior to sample collection are summarized in **Table 2.**

Groundwater samples collected for analysis of VOCs were placed in 40-milliliter (mL) glass vials preserved with mercuric chloride ($HgCl_2$). The groundwater samples collected for analysis of EDB were placed in 40-mL glass vials preserved with sodium thiosulfate ($Na_2S_2O_3$). Groundwater samples collected for analysis of dissolved iron, manganese, and lead were filtered through 0.45-micron filters prior to collection in sample bottles preserved with nitric acid (HNO_3). Care was taken while filtering the groundwater samples to ensure that there was no breakthrough of the groundwater sample through the filter material.

After collection, the groundwater samples were labeled and immediately packed in an ice-chilled cooler for transport to HEAL for analyses. The samples were analyzed for VOCs by EPA Method 8260B, EDB by EPA Method 504.1, and dissolved iron, manganese, and lead by EPA Method 200.7. Proper chain-of-custody procedures were adhered to during groundwater sample collection, transport, and delivery to the laboratory. Laboratory analytical results are summarized in **Table 3,** and the groundwater laboratory analytical report is included in **Appendix D.** Historical groundwater laboratory analytical results for monitoring wells not monitored during this event and for monitoring wells that were previously plugged and abandoned are included in **Appendix C**.

2.3 Monitoring Well Conditions

An obstruction was noted in monitoring well MW-4 at 10.60 ft btoc; the oil/water interface probe and groundwater sample tubing could not be successfully deployed past this obstruction. When the oil/water interface probe was removed from the monitoring well, a large root ball was observed on the interface probe (**Appendix E**). Despite the obstruction, a groundwater sample was successfully collected from monitoring well MW-4. Additionally, the conditions at the other monitoring wells sampled were adequate for successful groundwater sample collection.

2.4 Project Health and Safety, Quality Assurance, and Investigation-Derived Waste

Prior to initiation of field activities, the HASP was reviewed by INTERA field staff and was followed during all Site activities. All of the field activities were conducted using modified Level D PPE, including safety glasses and steel-toed boots. Nitrile gloves were used to handle all samples.

Quality assurance practices, which were strictly adhered to, included decontaminating the oil/water interface probe with a Liquinox® solution and double-rinsing with de-ionized water between gauging and groundwater sampling activities at each well. Purge water produced from each monitoring well during groundwater sampling was applied to an impermeable surface.

3.0 RESULTS

The results of the field activities conducted at the Site are summarized in the following subsections.

3.1 Fluid Level Gauging and Groundwater Flow Direction

Light non-aqueous phase liquid (LNAPL) of measurable thickness (greater than 0.01 ft) was not observed in any Site monitoring wells. Recorded depth to water measurements ranged from 8.09 ft btoc at monitoring well MW-4 to 9.37 ft btoc at monitoring well MW-8. The potentiometric surface elevations ranged from 4,934.84 ft above mean sea level (amsl) at monitoring well MW-7 to 4,935.33 ft amsl at monitoring well VP-5 (**Table 1**). The groundwater flow direction is to the south-southeast with a hydraulic gradient of approximately 0.002 ft/ft (**Figure 3**).

3.2 Groundwater Quality Parameters

Groundwater quality parameters were measured and recorded during monitoring well purging until the water quality parameters stabilized. Groundwater parameters at monitoring well VP-2 did not stabilize prior to groundwater sample collection. Final/stabilized temperatures ranged from 17.68°C or 63.82°F (MW-7) to 18.98°C or 66.16°F (MW-8). Final/stabilized specific conductivity values ranged from 431 microSiemens per centimeter (µS/cm) (MW-9) to 735 µS/cm (VP-5). Final/stabilized pH values ranged from 5.99 (VP-2) to 7.62 (MW-7). Final/stabilized DO concentrations ranged from 2.09 milligrams per liter (mg/L) (MW-7) to 3.93 mg/L (MW-8). Final/stabilized ORP values ranged from -262.3 millivolts (mV) (MW-8) to -120.7 mV (VP-2). Groundwater quality parameter values are provided in the field notes and sampling forms presented in **Appendix B,** and the initial and final/stabilized groundwater quality parameters are summarized in **Table 2**.

3.3 Groundwater Analytical Results

Five of the six monitoring wells sampled had VOCs detected in groundwater at concentrations above the laboratory reporting limit (RL). Two of these five monitoring wells had VOCs detected in groundwater at concentrations that exceed the NMWQCC Standards (**Table 3** and **Figure 4**).

Concentrations of total naphthalenes (naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene) greater than the NMWQCC Standard of 30 micrograms per liter (µg/L) were detected in groundwater samples collected from monitoring wells MW-8 (62 µg/L) and VP-5 (280 µg/L). The estimated areal extent of dissolved phase total naphthalenes that exceeds the NMWQCC

Standard of 30 µg/L is illustrated in **Figure 5.** Total naphthalenes concentration and groundwater elevation over time for the Site monitoring wells are presented in **Figures 6a, 7a, 8a, 9a, 10a,** and **11a**.

Benzene was detected at monitoring well MW-9 at a concentration of 6.4 µg/L; this concentration does not exceed the NMWQCC Standard of 10 µg/L. **Figures 6b, 7b, 8b, 9b, 10b,** and **11b** illustrate benzene concentration and groundwater elevation over time for the Site monitoring wells. All other VOC constituents were at levels below their respective NMWQCC Standard or PSTB Action Level.

Dissolved manganese was detected in groundwater at concentrations that exceed the NMWQCC Standard of 0.2 mg/L in five of the six monitoring wells sampled: MW-4 (0.78 mg/L), MW-7 (0.69 mg/L), MW-8 (0.34 mg/L), MW-9 (0.81 mg/L), and VP-2 (0.59 mg/L). Dissolved iron was detected at the NMWQCC Standard of 1.0 mg/L in VP-5 (1.0 mg/L). Dissolved lead was not detected in any of the Site monitoring wells above the laboratory RL.

A summary of the analytical data, including which monitoring wells contained contaminants of concern in excess of the NMWQCC Standards, is presented in **Table 3** and **Figure 4.** A copy of the laboratory report is included in **Appendix D.**

4.0 CONCLUSIONS AND RECOMMENDATIONS

The objectives of INTERA's 1st semi-annual groundwater monitoring event are to provide (1) an evaluation of groundwater flow direction, (2) an assessment of dissolved contaminant concentration trends relative to NMWQCC Standards, and (3) an evaluation of natural attenuation in the groundwater plume source area. Based on the results of the field investigation, INTERA has compiled the following conclusions and recommendations.

4.1 Conclusions

- LNAPL was not observed at any of the Site monitoring wells.
- The water levels at each monitoring well were within 0.11 ft compared to the water levels measured during the previous groundwater monitoring event conducted in April 2014.
- The potentiometric surface is relatively flat across the Site. The general direction of groundwater flow is to the south-southeast with a hydraulic gradient of 0.002 ft/ft.
- Total naphthalenes and dissolved iron and manganese continue to be detected at Site monitoring wells at concentrations that exceed NMWQCC Standards (**Table 3** and **Figure 4)**.
- Total naphthalenes were detected in groundwater at concentrations above the NMWQCC Standard in monitoring wells MW-8 and VP-5. Relative to the last sampling event conducted in April 2014, the concentration of total naphthalenes has increased at monitoring wells MW-4, VP-2, and VP-5, and decreased at monitoring wells MW-8 and MW-9. Monitoring well MW-7 was not sampled during the last sampling event (April 2014); the concentration of total naphthalenes has remained unchanged since monitoring well MW-7 was last sampled in August 2011 (**Figures 6a, 7a, 8a, 9a, 10a,** and **11a**).
- Benzene was not present at concentrations above the NMWQCC Standard at any Site monitoring wells. This is the first groundwater sampling event since 2003 where the benzene concentration at monitoring well MW-9 has been detected below the NMWQCC Standard (**Figure 9b** and **Table 3**). Monitoring well MW-9 has seen dynamic fluctuations in benzene concentration during the historic Site groundwater sampling events.
- The areal extent of the dissolved-phase total naphthalenes groundwater plume is defined except to the northwest.
- Dissolved iron and manganese continue to be detected at monitoring wells MW-4, MW-7, MW-8, MW-9, VP-2, and VP-5 at concentrations that exceed the NMWQCC Standards. These exceedances correspond to monitoring wells where VOCs are currently or have been historically detected in groundwater.

- A common method used to assess biodegradation at contaminated sites is to measure decreases in concentrations of terminal electron acceptors or increases in concentrations of biodegradation byproducts. The soluble species of iron and manganese are byproducts of anaerobic biodegradation. The presence of elevated dissolved iron and manganese concentrations at locations with observed decreasing petroleum hydrocarbon concentrations are evidence that biodegradation of petroleum hydrocarbons is occurring. Biodegradation, in addition to other natural attenuation processes, has been an effective method for the reduction of petroleum hydrocarbons at the Site (EPA, 1999; ITRC, 2009).

4.2 Recommendations

Based on the results of the December 2, 2014, groundwater monitoring event, INTERA makes the following recommendations:

- Continue groundwater monitoring at the Site on a semi-annual basis to assess groundwater quality and dissolved contaminant trends. Analytical results of the current sampling event indicate that dissolved-phase petroleum hydrocarbons, particularly total naphthalenes, as well as dissolved iron and manganese, continue to be a concern at the Site.
- Confirm the actual screen interval at monitoring wells VP-2 and VP-5 to verify that these monitoring wells are screened across the water table. INTERA recommends reviewing the AS/SVE remediation system as-builts and other pertinent reports to see if the screened interval for these monitoring wells is identified in these reports. If a file review cannot verify that these monitoring wells are screened across the water table, INTERA recommends video logging these wells to identify the screen intervals.
- Remove the root ball obstruction at monitoring well MW-4 to maintain the integrity of this monitoring well and prevent further damage.
- Evaluate the need to install a monitoring well northwest of monitoring well VP-5 to aid in delineating the dissolved-phase total naphthalenes plume.

5.0 REFERENCES

CDM Smith. 2014. *Groundwater Monitoring Report for the Barelas Bridge Site. Located at 800 Barelas Bridge SE. Albuquerque, New Mexico, CDM Smith Project No. 5000-98968.BB. NMED Facility No. 29854, Release ID No. 54, Deliverable No. 3722-2.* April 29.

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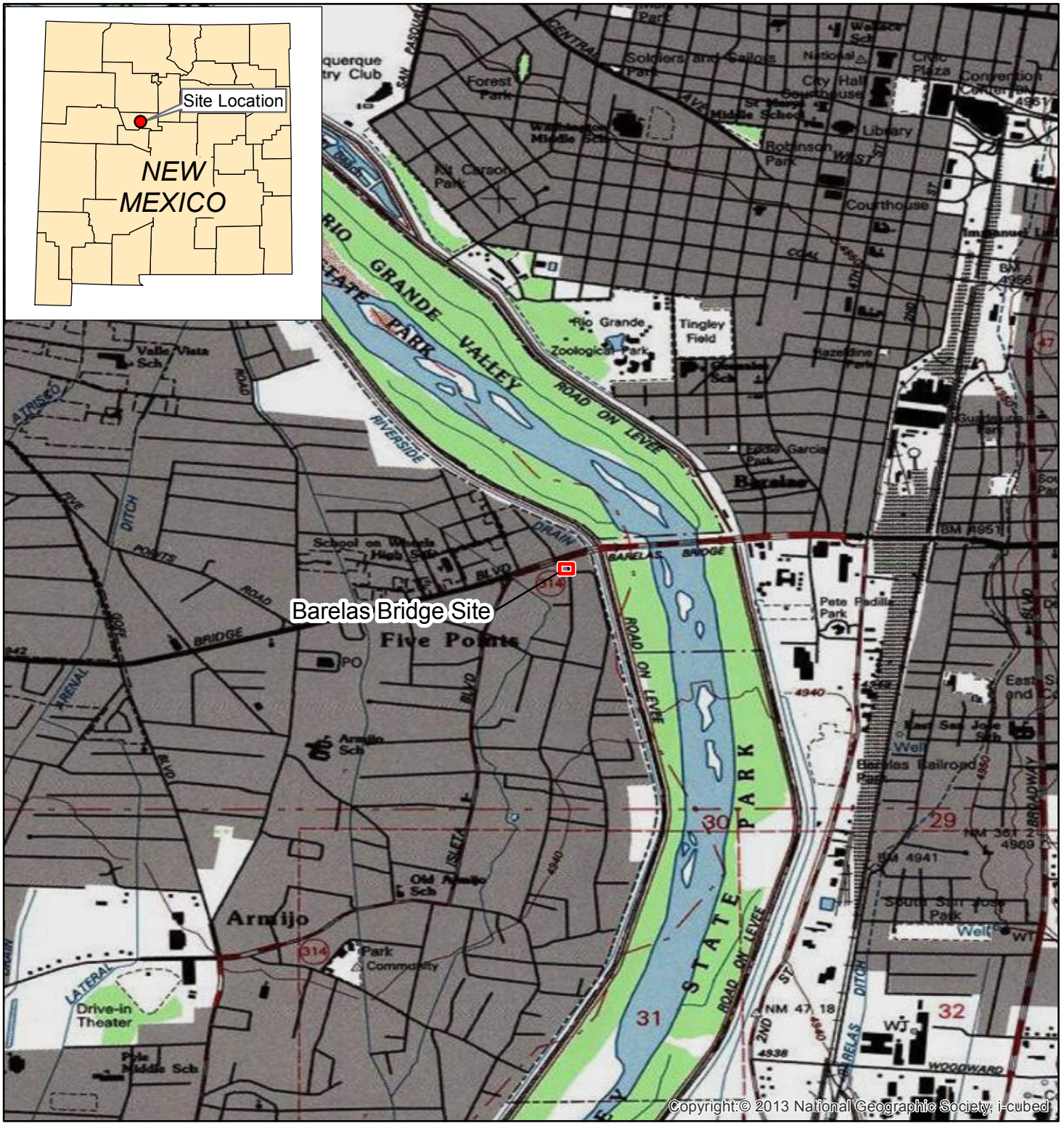
FIGURES



N

2,000 1,000 0 2,000 Feet

Site Location

Sources:
Topo – USA Topo Maps, ESRI web data

INTERA

Figure 1
Site Location
Barelas Bridge,
Albuquerque, New Mexico

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Source(s): Aerial – BERNCO website, dated 2014;
Well locations – Groundwater Technology, 1992 and Kleinfelder, 2006;
Site features – Leggette, Brashears & Graham Inc., 1990

INTERA

Figure 2
Site Plan
Barelas Bridge,
Albuquerque, New Mexico

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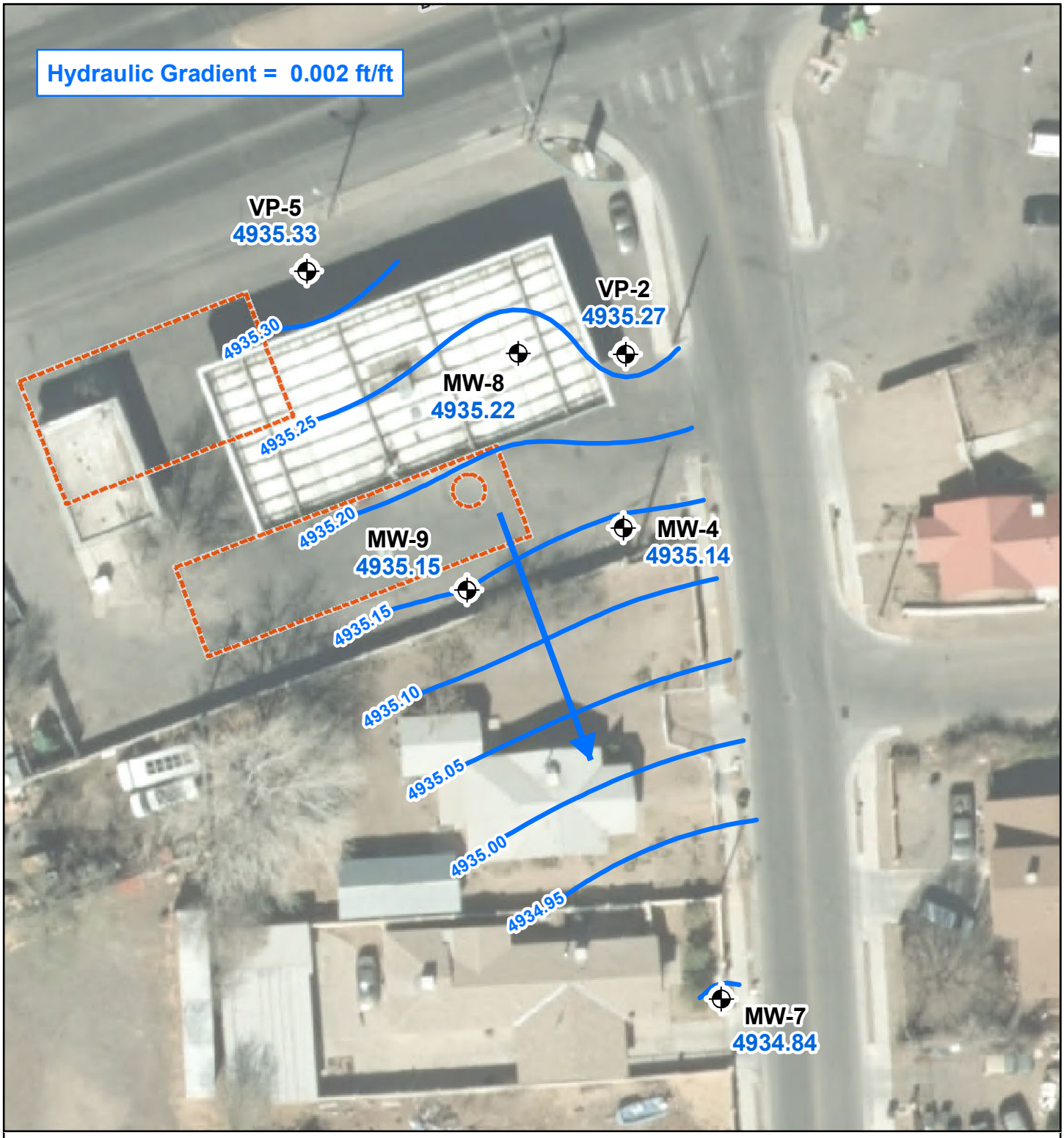

Legend

- Monitoring Well Location
- Former Site Features
- Estimated Groundwater Flow Direction
- Groundwater Elevation Contour (ft amsl)

N

40 20 0 40 Feet

Source(s): Aerial – BERNCO website, dated 2014;
Well locations – Groundwater Technology, 1992 and Kleinfelder, 2006;
Site features – Leggette, Brashears & Graham Inc., 1990

INTERA

Figure 3
Potentiometric Surface Map,
December 2, 2014
Barelas Bridge,
Albuquerque, New Mexico

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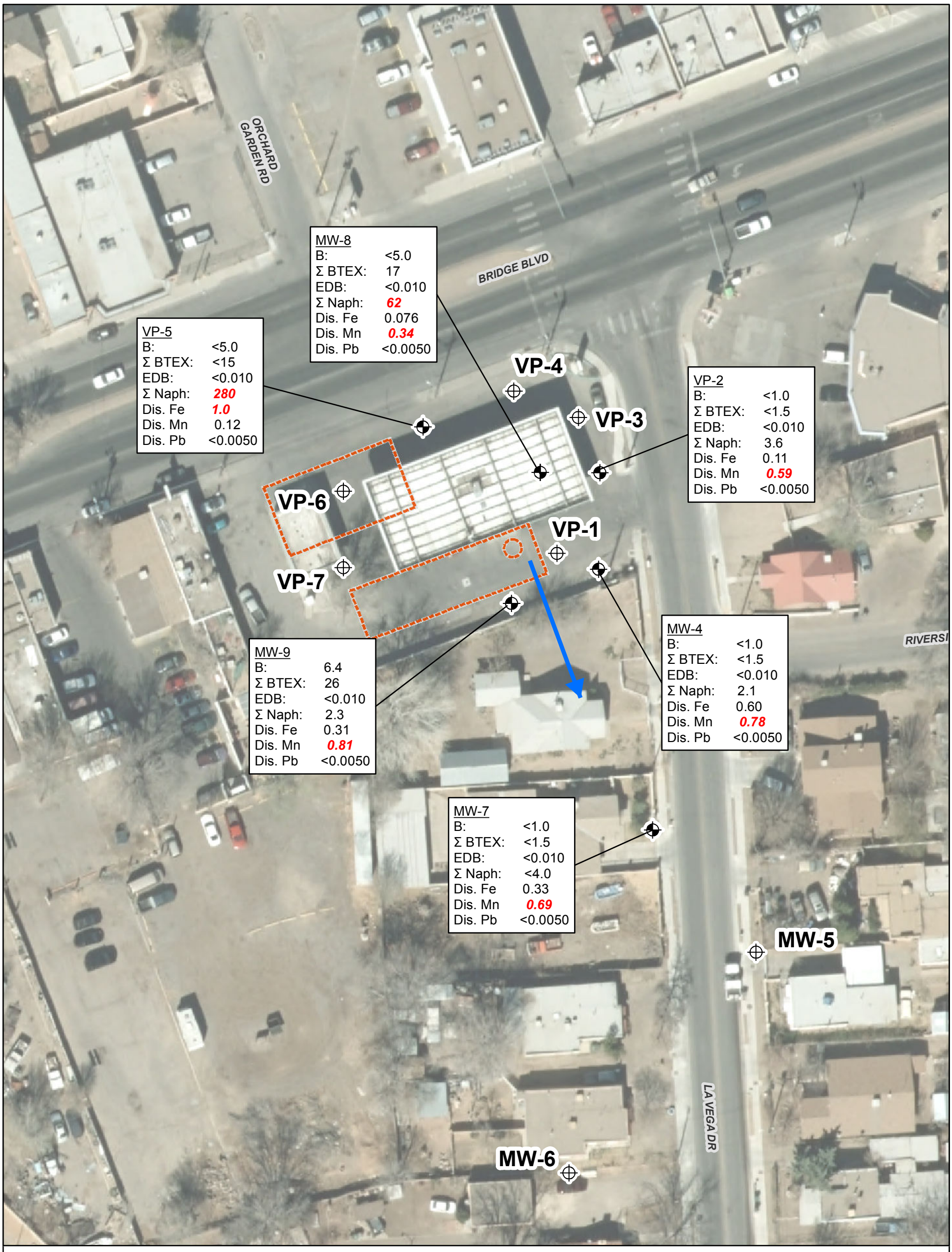

Legend

- Monitoring Well Location
- Plugged and Abandoned or Not Located
- Estimated Groundwater Flow Direction
- Former Site Features

Σ BTEX = B + T + E + X
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
Σ Naph = Naphthalene + 1,Methyl naphthalene + 2, Methyl naphthalene
EDB = 1,2-dibromoethane

N

50 25 0 50 Feet

Notes: VOC contaminant results are in µg/L (micrograms per liter).
Dissolved iron (Fe), manganese (Mn), and lead (Pb) contaminant results are in mg/L (milligrams per liter).
Bold/Italic indicates value in excess of the NMWQCC standards.

Source(s): Aerial – BERNCO website, dated 2012;
Well locations – Groundwater Technology, 1992 and Kleinfelder, 2006;
Site features – Leggette, Brashears & Graham Inc., 1990

INTERA

Figure 4
Distribution of Contaminants in Groundwater, December 2, 2014
Barelas Bridge,
Albuquerque, New Mexico

FILE: S:\Projects\NMENV_M002_PSTB\Barelas_Bridge\Graphics\GIS\MapDocs\1st_SA_GW_Report\04_GWCont_Map_BarelasBridge.mxd Date: 12/18/2014

Legend

- Monitoring Well Location
- Plugged and Abandoned or Not Located
- Estimated Extent of Dissolved Phase Total Naphthalenes >30µg/L (dashed where inferred)
- Estimated Groundwater Flow Direction
- Former Site Features

Σ BTEX = B + T + E + X
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
Σ Naph = Naphthalene + 1,Methyl naphthalene + 2, Methyl naphthalene
EDB = 1,2-dibromoethane

N

50 25 0 50 Feet

Notes: VOC contaminant results are in µg/L (micrograms per liter).
Dissolved iron (Fe), manganese (Mn), and lead (Pb) contaminant results are in mg/L (milligrams per liter).
Bold/Italic indicates value in excess of the NMWQCC standards.
Results are December 2, 2014 unless otherwise noted.

Source(s): Aerial – BERNCO website, dated 2015;
Well locations – Groundwater Technology, 1992 and Kleinfelder, 2006;
Site features – Leggette, Brashears & Graham Inc., 1990

INTERA

Figure 5
Extent of Total Naphthalenes in Groundwater, December 2, 2014
Barelas Bridge,
Albuquerque, New Mexico

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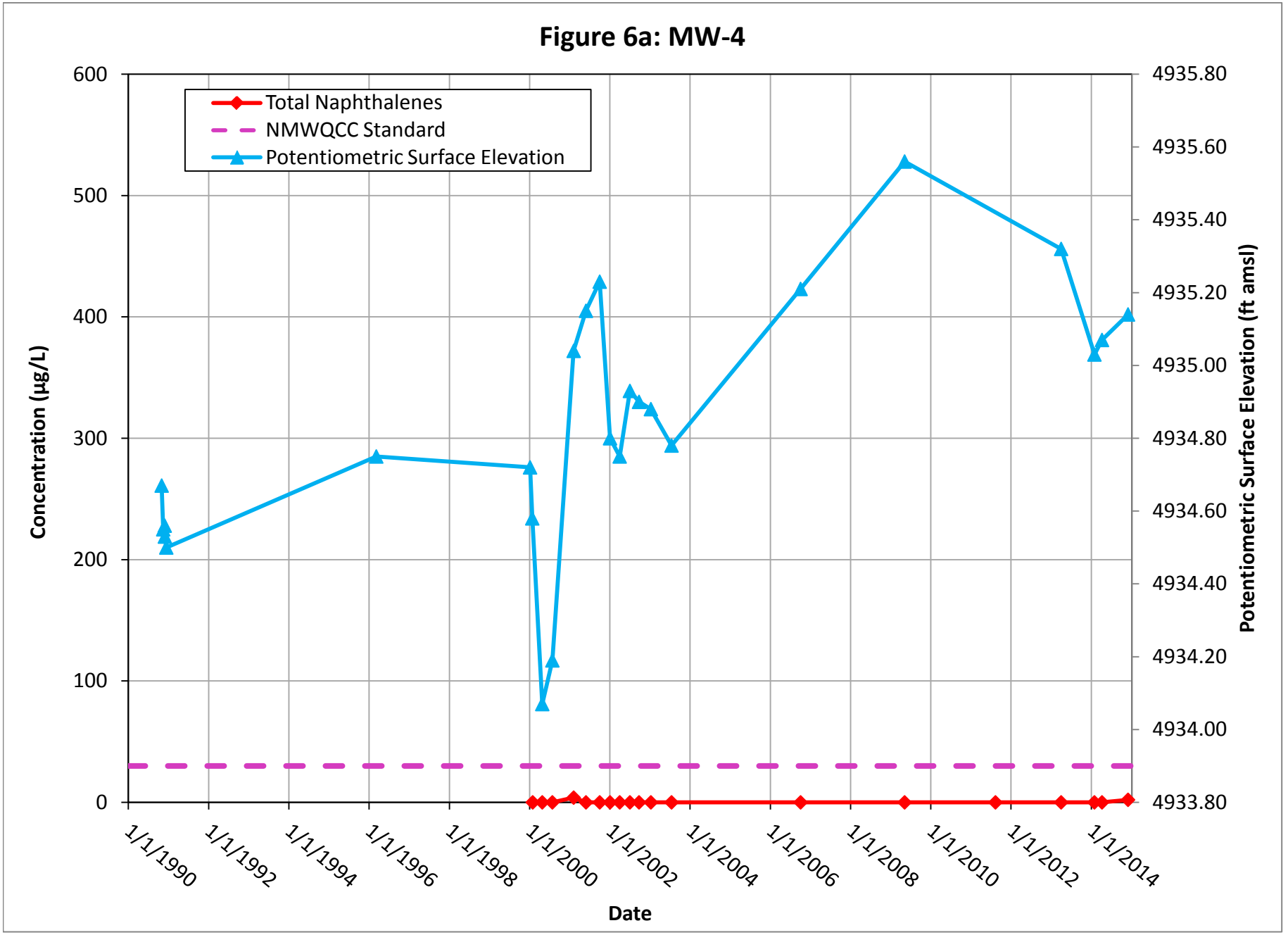
Figure 6a: MW-4
Total Naphthalenes
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
600
500
400
300
200
100
0
4935.80
4935.60
4935.40
4935.20
4935.00
4934.80
4934.60
4934.40
4934.20
4934.00
4933.80
1/1/1990
1/1/1992
1/1/1994
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1/1/2012
1/1/2014

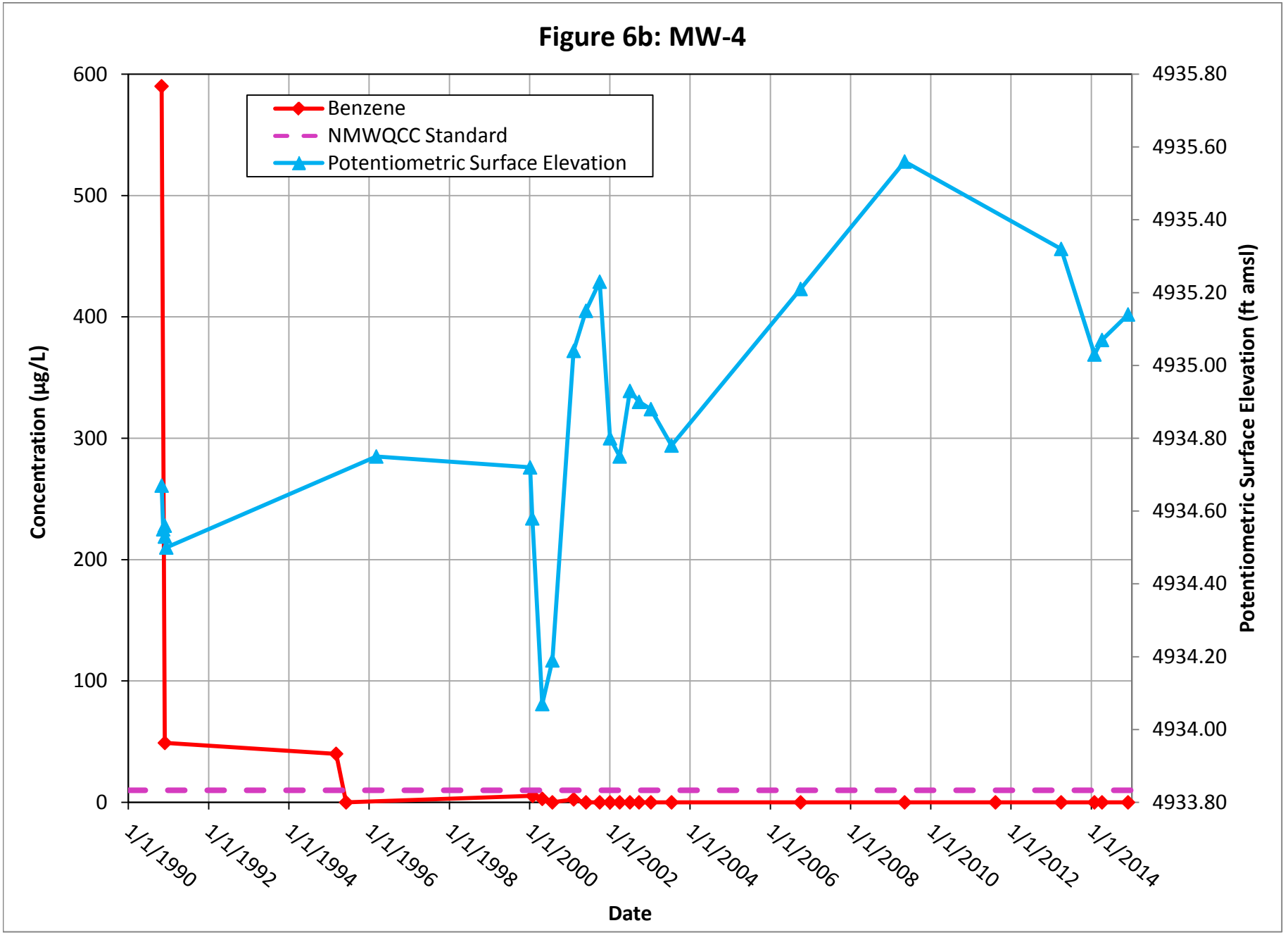


Figure 6b: MW-4
Benzene
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
600
500
400
300
200
100
0
4935.80
4935.60
4935.40
4935.20
4935.00
4934.80
4934.60
4934.40
4934.20
4934.00
4933.80
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

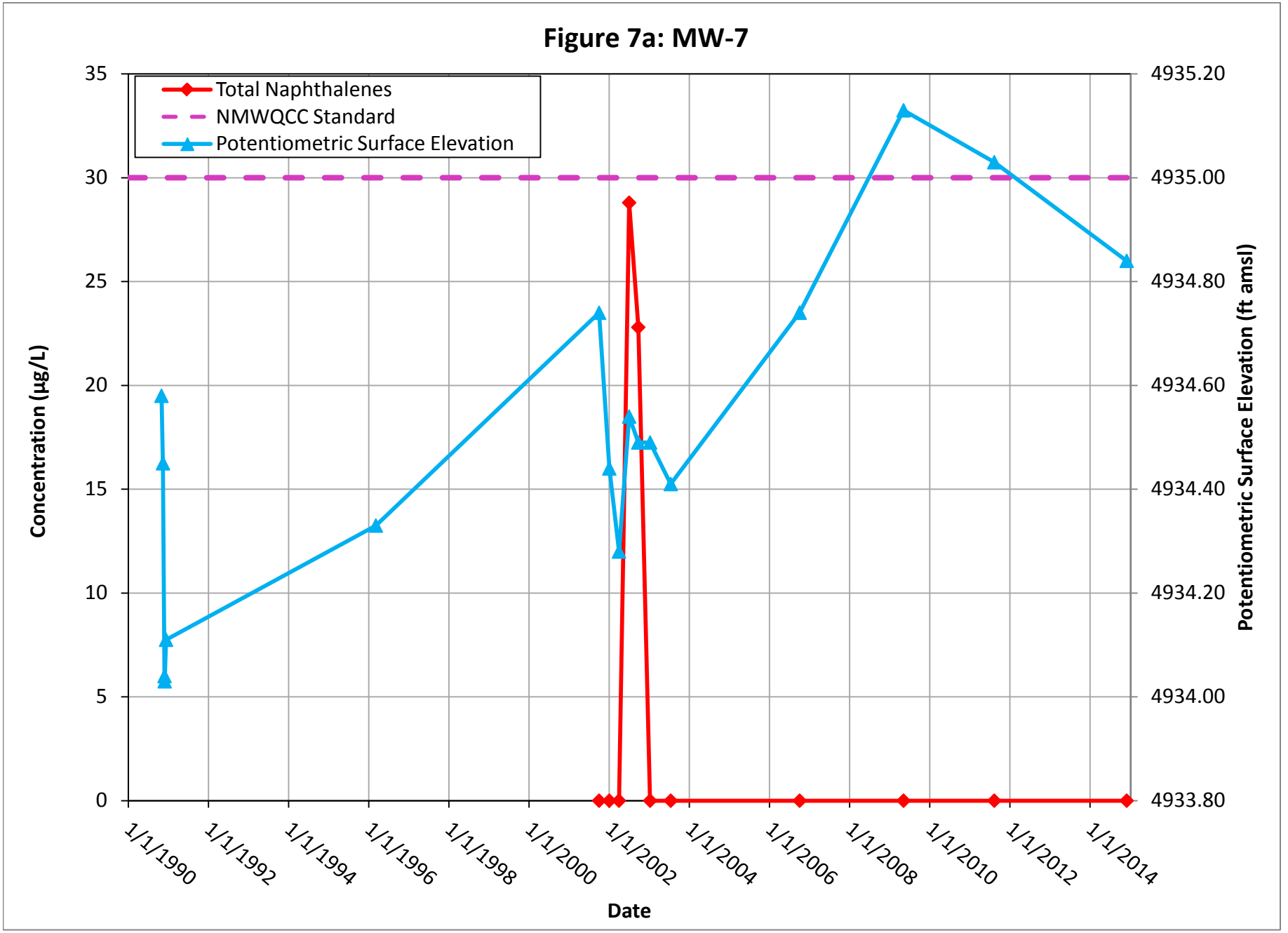


Figure 7a: MW-7
Total Naphthalenes
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
35
30
25
20
15
10
5
0
4935.20
4935.00
4934.80
4934.60
4934.40
4934.20
4934.00
4933.80
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

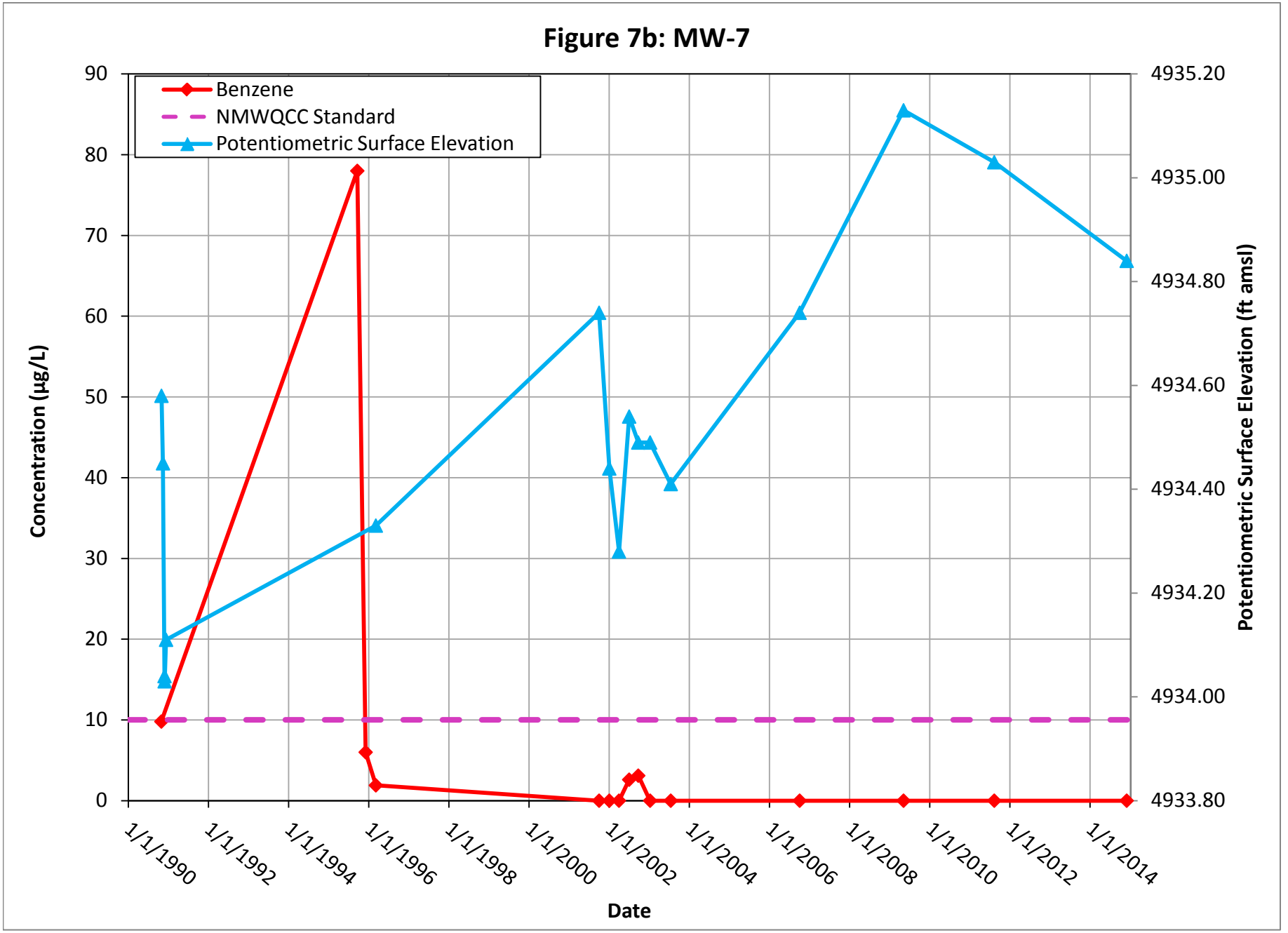


Figure 7b: MW-7
Benzene
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
0
10
20
30
40
50
60
70
80
90
4933.80
4934.00
4934.20
4934.40
4934.60
4934.80
4935.00
4935.20
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

Figure 8a: MW-8

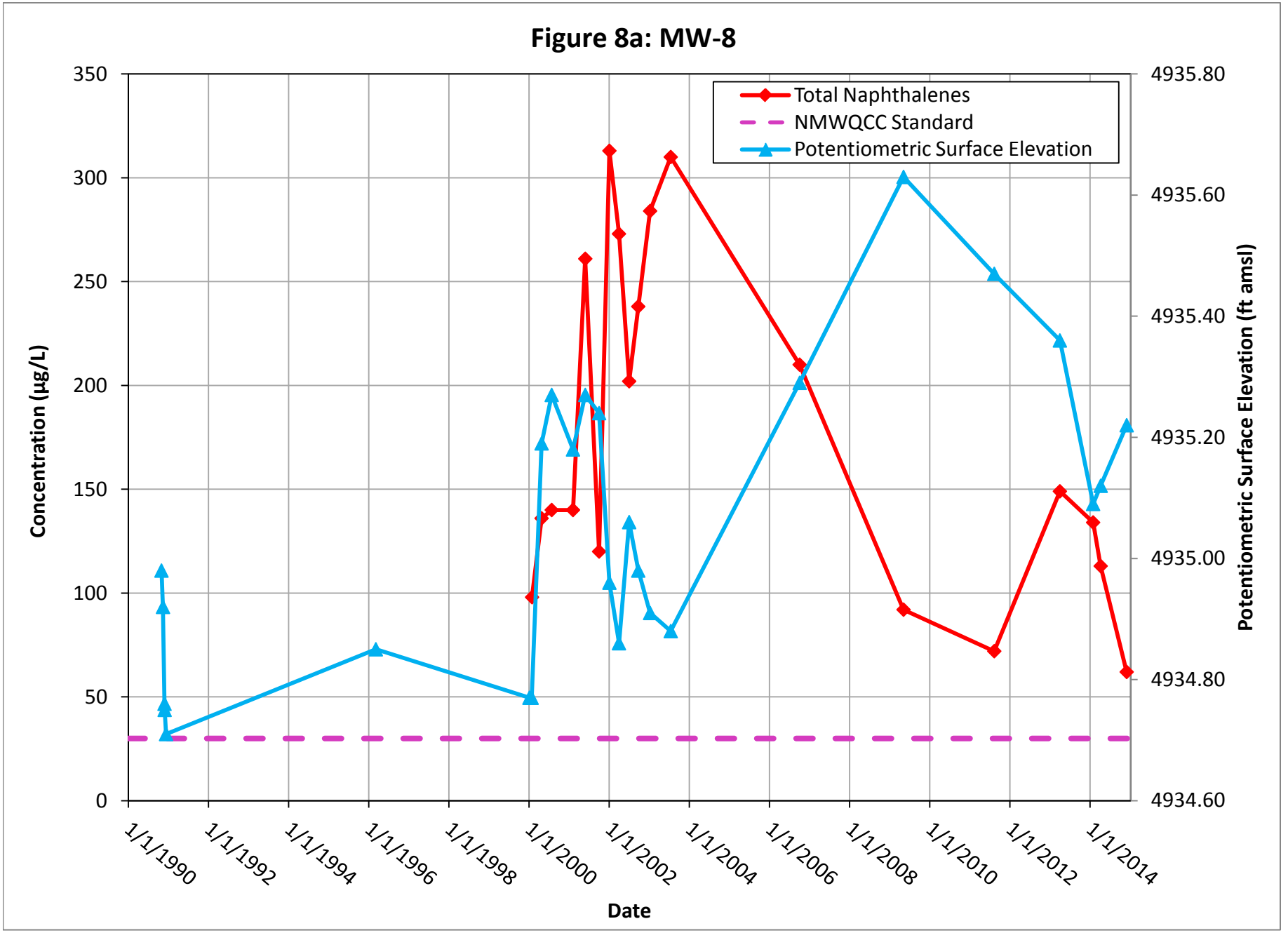
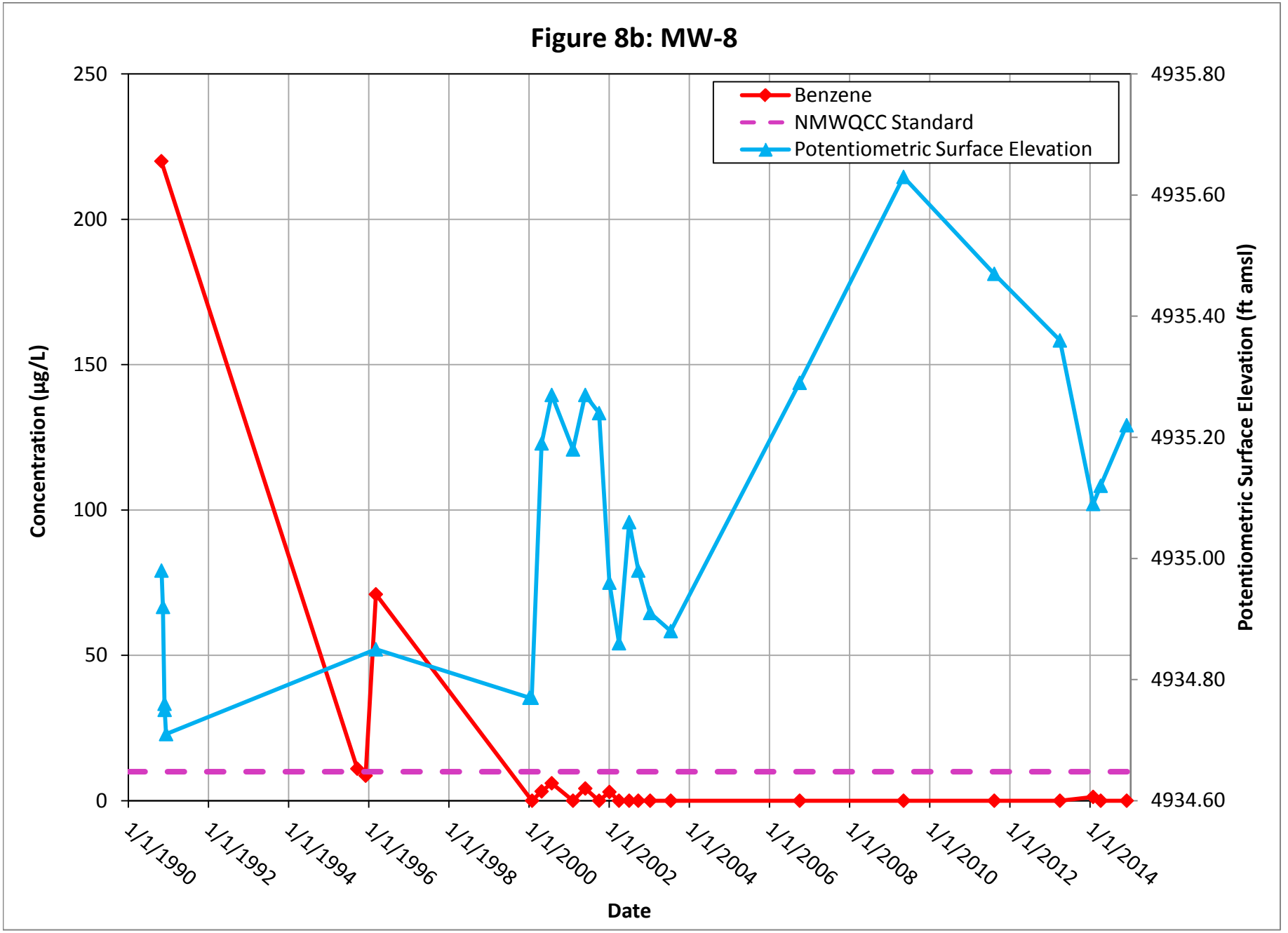


Figure 8b: MW-8



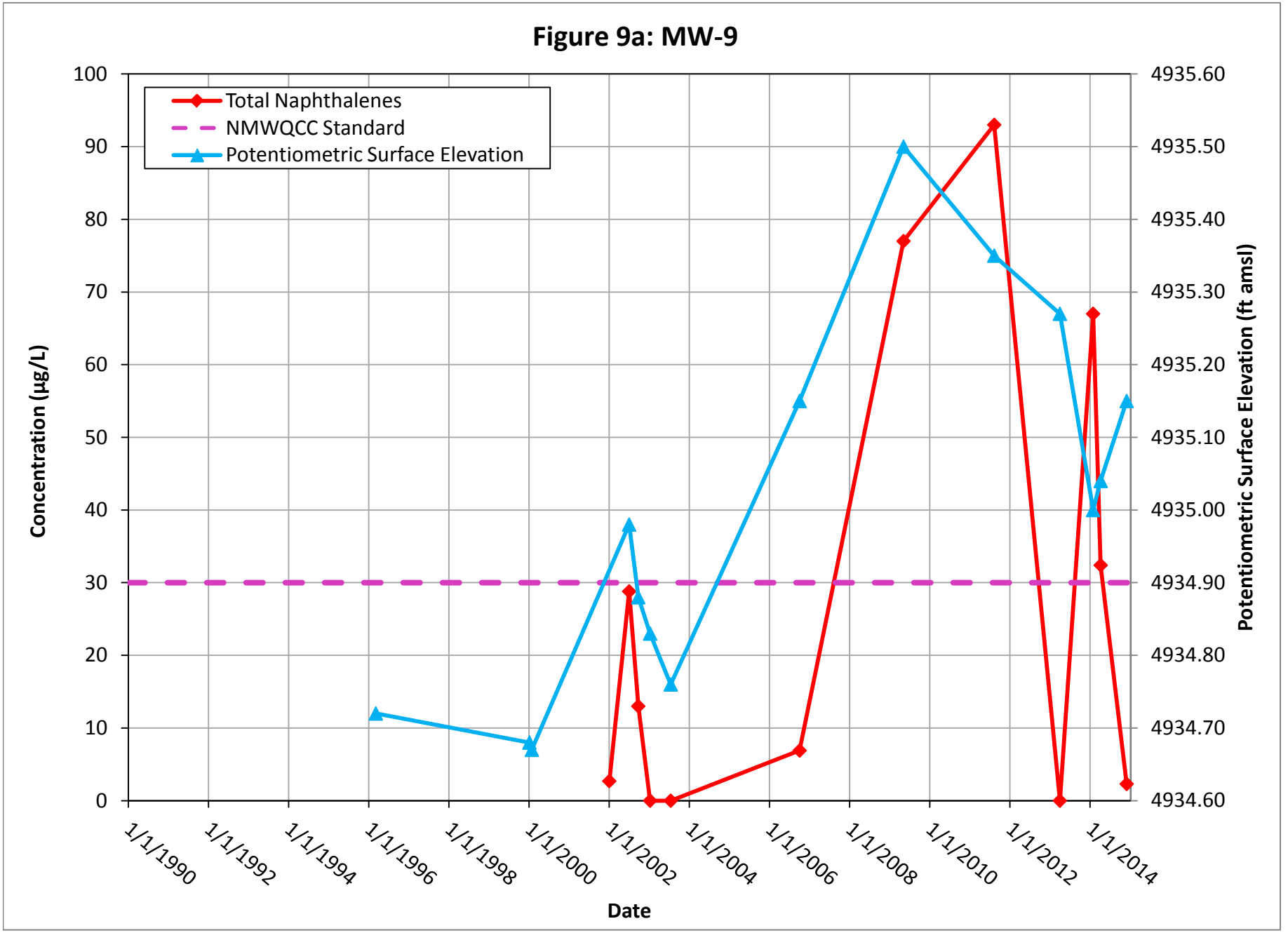
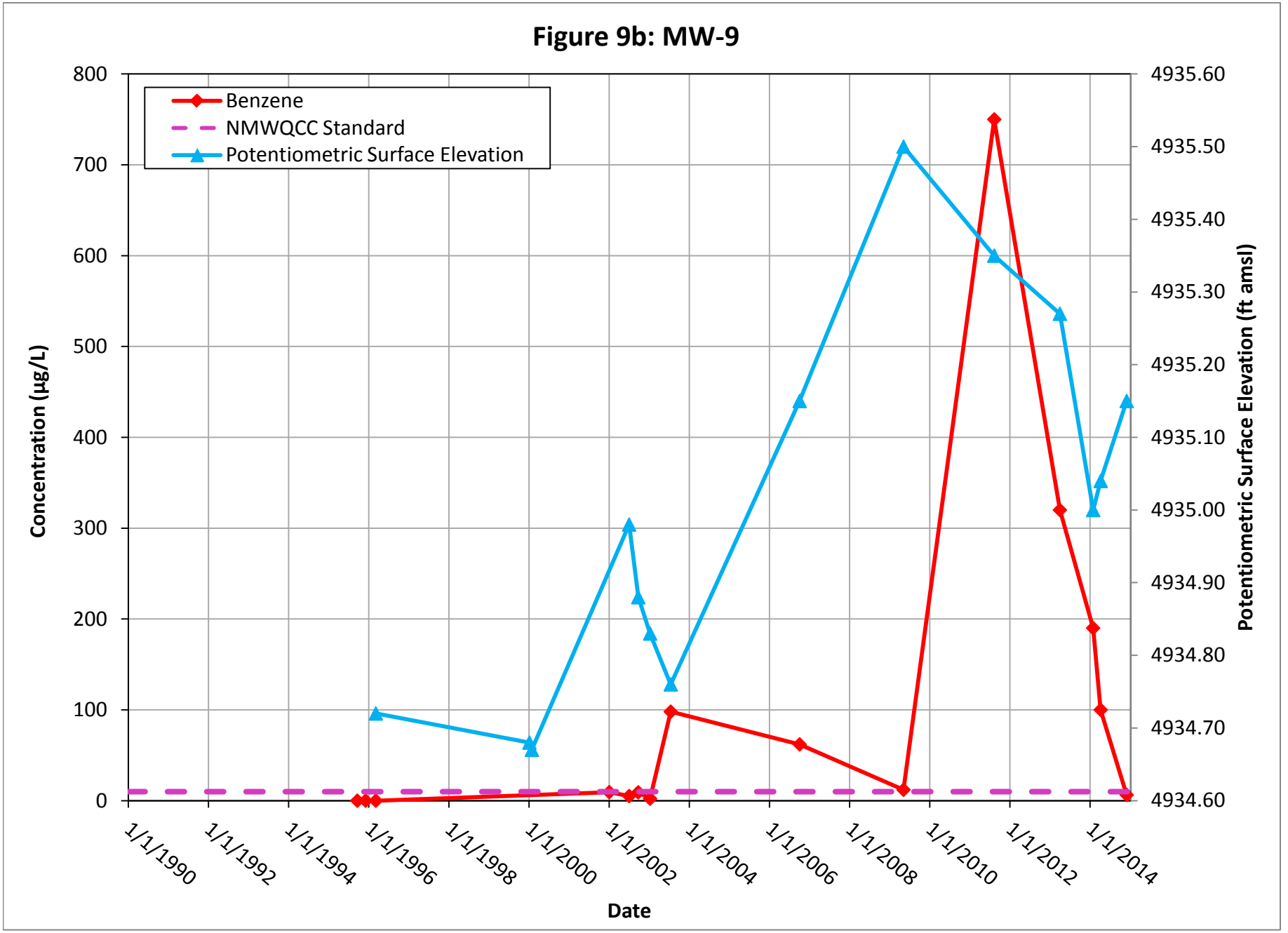


Figure 9a: MW-9
Total Naphthalenes
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
100
90
80
70
60
50
40
30
20
10
0
4935.60
4935.50
4935.40
4935.30
4935.20
4935.10
4935.00
4934.90
4934.80
4934.70
4934.60
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

Figure 9b: MW-9



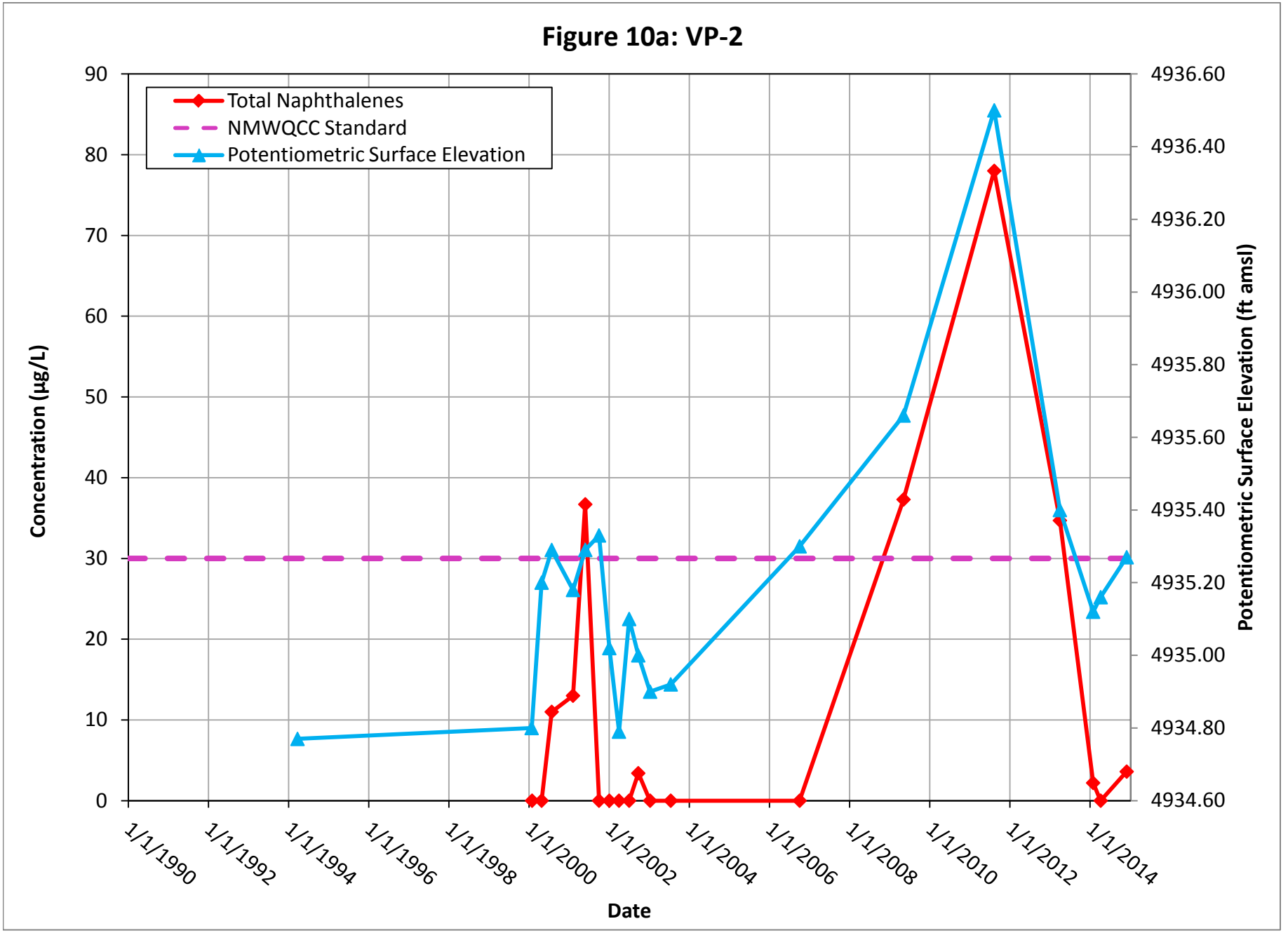


Figure 10a: VP-2
Total Naphthalenes
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
0
10
20
30
40
50
60
70
80
90
4934.60
4934.80
4935.00
4935.20
4935.40
4935.60
4935.80
4936.00
4936.20
4936.40
4936.60
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

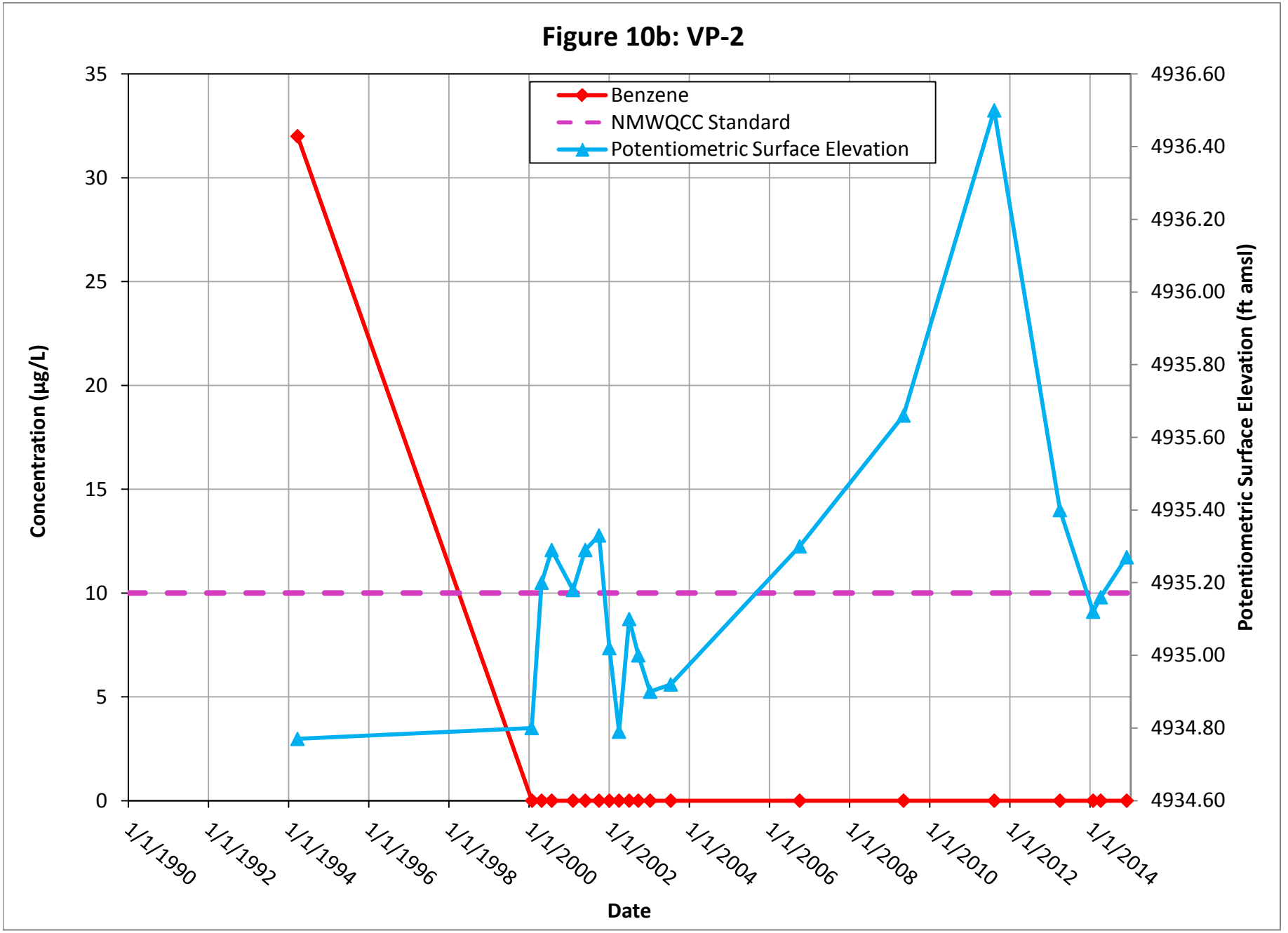


Figure 10b: VP-2
Benzene
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
0
5
10
15
20
25
30
35
4934.60
4934.80
4935.00
4935.20
4935.40
4935.60
4935.80
4936.00
4936.20
4936.40
4936.60
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

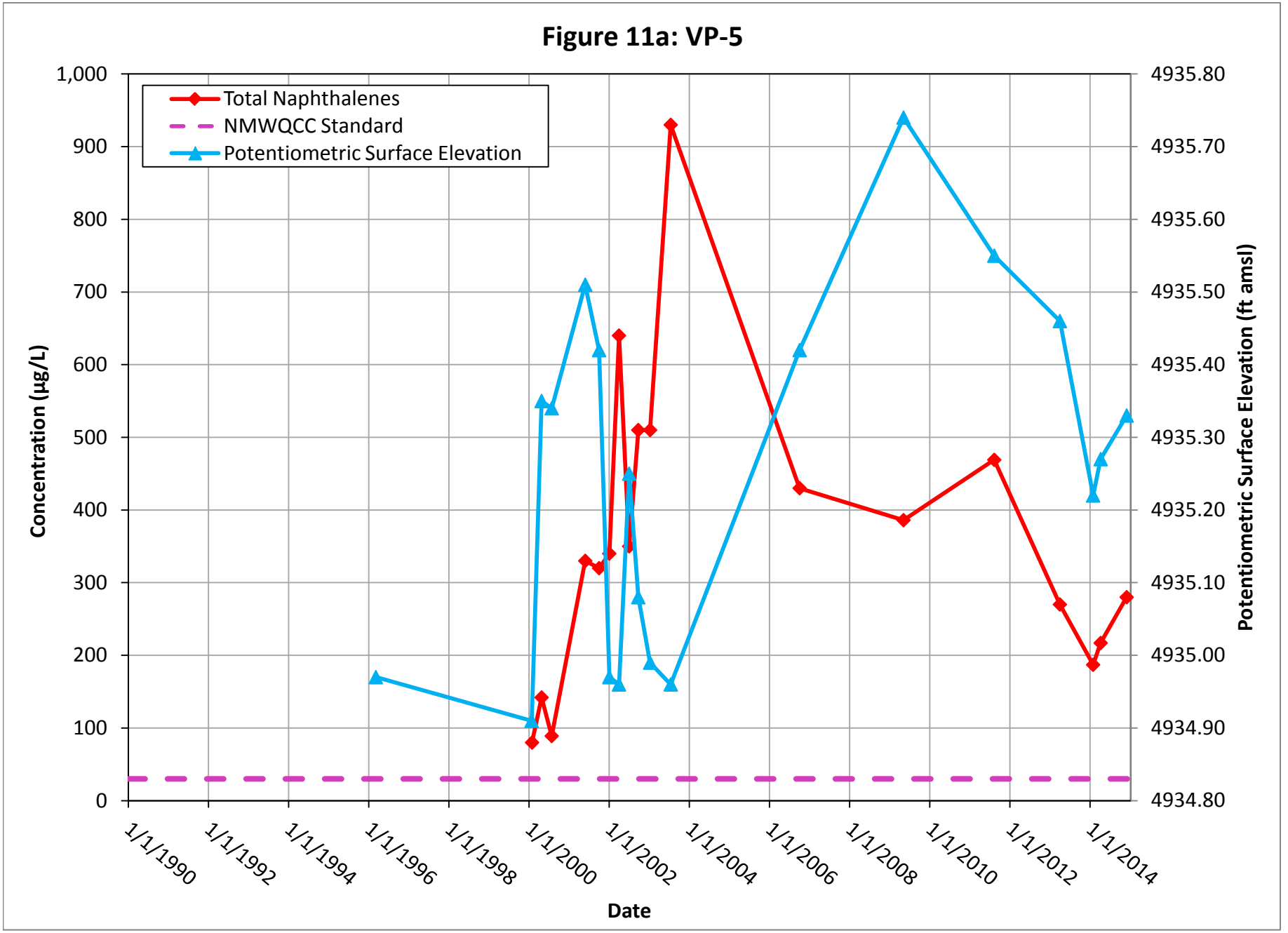


Figure 11a: VP-5
Total Naphthalenes
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
1,000
900
800
700
600
500
400
300
200
100
0
4935.80
4935.70
4935.60
4935.50
4935.40
4935.30
4935.20
4935.10
4935.00
4934.90
4934.80
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

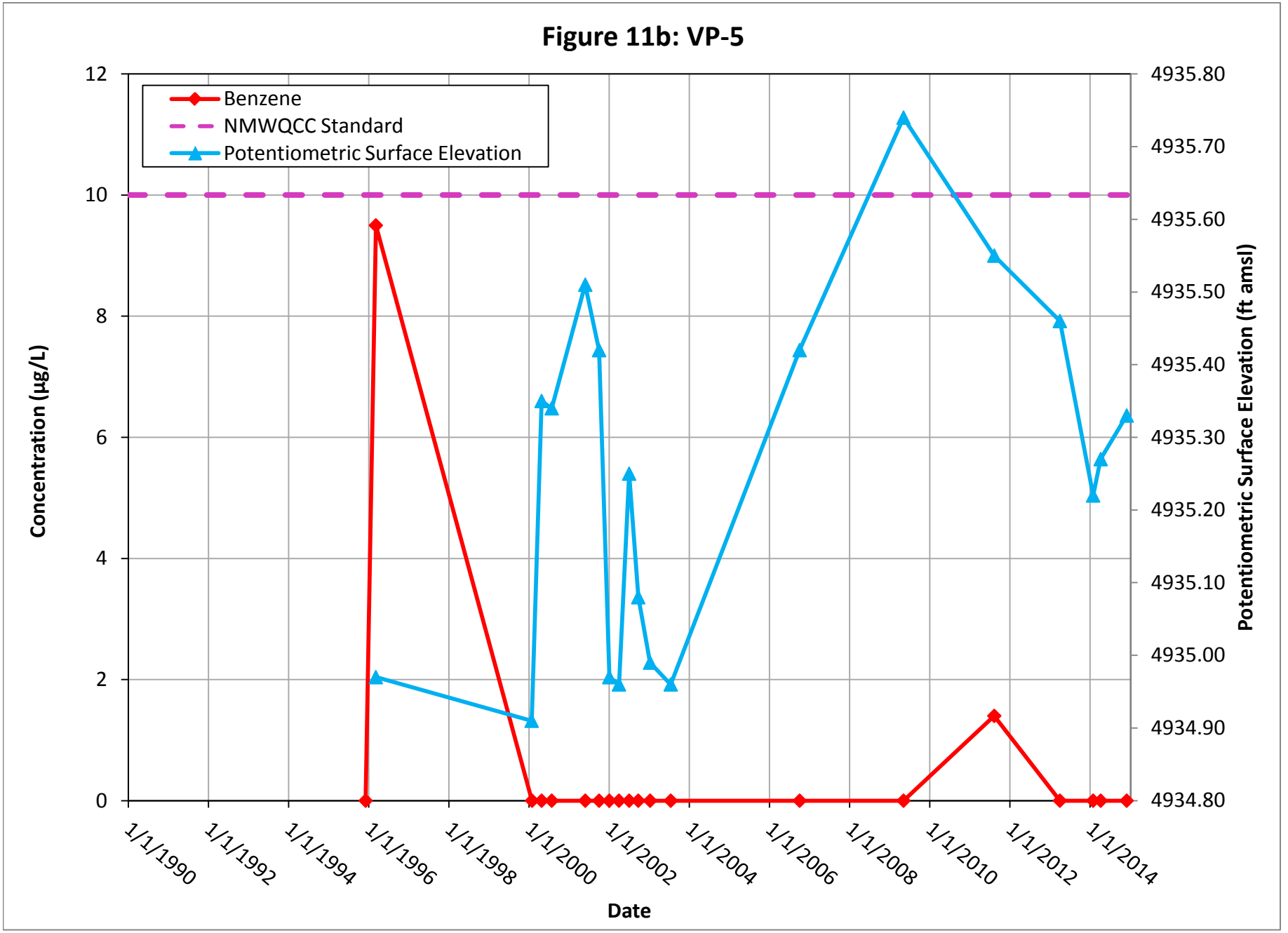


Figure 11b: VP-5
Benzene
NMWQCC Standard
Potentiometric Surface Elevation
Concentration (µg/L)
Potentiometric Surface Elevation (ft amsl)
Date
0
2
4
6
8
10
12
4934.80
4934.90
4935.00
4935.10
4935.20
4935.30
4935.40
4935.50
4935.60
4935.70
4935.80
1/1/1990
1/1/1992
1/1/1994
1/1/1996
1/1/1998
1/1/2000
1/1/2002
1/1/2004
1/1/2006
1/1/2008
1/1/2010
1/1/2012
1/1/2014

TABLES

TABLE 1
Fluid Level Measurements
Barelas Bridge Site
Facility # 29854; Release ID # 54
Albuquerque, Bernalillo County, New Mexico

Well ID	Date	Screen Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Potentiometric Surface Elevation (ft amsl)
MW-4	2/8/1990	3.5-18.5	4943.86	---	23.5	---
	10/31/1990	3.5-18.5	4943.86	---	---	4934.67
	11/14/1990	3.5-18.5	4943.86	---	---	4934.55
	11/28/1990	3.5-18.5	4943.86	---	---	4934.56
	11/29/1990	3.5-18.5	4943.86	---	---	4934.53
	12/12/1990	3.5-18.5	4943.86	---	---	4934.50
	12/4/1992	3.5-18.5	4943.23	---	23.5	---
	3/7/1996	3.5-18.5	4943.23	8.48	16.48	4934.75
	1/6/2000	3.5-18.5	4943.23	8.51	16.48	4934.72
	1/26/2000	3.5-18.5	4943.23	8.65	16.48	4934.58
	4/26/2000	3.5-18.5	4943.23	9.16	16.48	4934.07
	7/27/2000	3.5-18.5	4943.23	9.04	16.48	4934.19
	2/6/2001	3.5-18.5	4943.23	8.19	16.48	4935.04
	5/29/2001	3.5-18.5	4943.23	8.08	16.48	4935.15
	10/1/2001	3.5-18.5	4943.23	8.00	16.5	4935.23
	1/3/2002	3.5-18.5	4943.23	8.43	16.5	4934.80
	4/1/2002	3.5-18.5	4943.23	8.48	16.5	4934.75
	7/3/2002	3.5-18.5	4943.23	8.30	16.5	4934.93
	9/24/2002	3.5-18.5	4943.23	8.33	16.5	4934.90
	1/10/2003	3.5-18.5	4943.23	8.4	16.5	4934.88
	7/17/2003	3.5-18.5	4943.23	8.5	16.5	4934.78
	10/4/2006	3.5-18.5	4943.23	8.02	20.62	4935.21
	5/8/2009	3.5-18.5	4943.23	7.67	---	4935.56
	4/2/2013	3.5-18.5	4943.23	7.91	---	4935.32
	1/30/2014	3.5-18.5	4943.23	8.20	---	4935.03
	4/9/2014	3.5-18.5	4943.23	8.16	---	4935.07
	12/2/2014	3.5-18.5	4943.23	8.09	10.60*	4935.14
MW-7	10/18/1990	7-22	4942.94	---	22	---
	10/31/1990	7-22	4942.94	---	---	4934.58
	11/14/1990	7-22	4942.94	---	---	4934.45
	11/28/1990	7-22	4942.94	---	---	4934.04
	11/29/1990	7-22	4942.94	---	---	4934.03
	12/12/1990	7-22	4942.94	---	---	4934.11
	3/7/1996	7-22	4942.94	8.61	21.45	4934.33
	10/2/2001	7-22	4942.94	8.20	21.45	4934.74
	1/3/2002	7-22	4942.94	8.50	21.45	4934.44
	4/1/2002	7-22	4942.94	8.66	21.45	4934.28
	7/3/2002	7-22	4942.94	8.40	21.45	4934.54
	9/24/2002	7-22	4942.94	8.45	21.45	4934.49
	1/10/2003	7-22	4942.94	8.45	21.45	4934.49

TABLE 1
Fluid Level Measurements
Barelas Bridge Site
Facility # 29854; Release ID # 54
Albuquerque, Bernalillo County, New Mexico

Well ID	Date	Screen Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Potentiometric Surface Elevation (ft amsl)
MW-7	7/17/2003	7-22	4942.94	8.53	21.45	4934.41
	10/4/2006	7-22	4942.94	8.20	21.60	4934.74
	5/8/2009	7-22	4942.94	7.81	21.3	4935.13
	8/13/2011	7-22	4942.94	7.91	21.3	4935.03
	12/2/2014	7-22	4942.94	8.10	21.66	4934.84
MW-8	10/18/1990	8-13	4944.57	---	13	---
	10/31/1990	8-13	4944.57	---	---	4934.98
	11/14/1990	8-13	4944.57	---	---	4934.92
	11/28/1990	8-13	4944.57	---	---	4934.76
	11/29/1990	8-13	4944.57	---	---	4934.75
	12/12/1990	8-13	4944.57	---	---	4934.71
	3/7/1996	8-13	4944.59	9.74	13.16	4934.85
	1/6/2000	8-13	4944.59	9.82	13.16	4934.77
	1/26/2000	8-13	4944.59	9.82	13.16	4934.77
	4/26/2000	8-13	4944.59	9.4	13.16	4935.19
	7/27/2000	8-13	4944.59	9.32	13.16	4935.27
	2/6/2001	8-13	4944.59	9.41	13.16	4935.18
	5/29/2001	8-13	4944.59	9.32	13.16	4935.27
	10/2/2001	8-13	4944.59	9.35	13.16	4935.24
	1/4/2002	8-13	4944.59	9.63	13.16	4934.96
	4/1/2002	8-13	4944.59	9.73	13.16	4934.86
	7/3/2002	8-13	4944.59	9.53	13.16	4935.06
	9/24/2002	8-13	4944.59	9.61	13.16	4934.98
	1/10/2003	8-13	4944.59	9.68	13.16	4934.91
	7/17/2003	8-13	4944.59	9.71	13.16	4934.88
	10/4/2006	8-13	4944.59	9.30	13.13	4935.29
	5/8/2009	8-13	4944.59	8.96	12.8	4935.63
	8/13/2011	8-13	4944.59	9.12	12.8	4935.47
	4/2/2013	8-13	4944.59	9.23	12.8	4935.36
	1/30/2014	8-13	4944.59	9.5	12.8	4935.09
	4/9/2014	8-13	4944.59	9.47	12.8	4935.12
	12/2/2014	8-13	4944.59	9.37	13.32	4935.22
MW-9	8/20/1992	5-20	4943.98	---	20.0	---
	3/7/1996	5-20	4943.98	9.26	19.43	4934.72
	1/6/2000	5-20	4943.98	9.30	19.43	4934.68
	1/28/2000	5-20	4943.98	9.31	19.43	4934.67
	7/3/2002	5-20	4943.98	9.00	19.43	4934.98
	9/24/2002	5-20	4943.98	9.10	19.43	4934.88
	1/10/2003	5-20	4943.98	9.15	19.43	4934.83
	7/17/2003	5-20	4943.98	9.22	19.43	4934.76

TABLE 1
Fluid Level Measurements
Barelas Bridge Site
Facility # 29854; Release ID # 54
Albuquerque, Bernalillo County, New Mexico

Well ID	Date	Screen Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Potentiometric Surface Elevation (ft amsl)
MW-9	10/4/2006	5-20	4943.98	8.83	19.41	4935.15
	5/8/2009	5-20	4943.98	8.48	19.20	4935.5
	8/13/2011	5-20	4943.98	8.63	19.20	4935.35
	4/2/2013	5-20	4943.98	8.71	19.20	4935.27
	1/30/2014	5-20	4943.98	8.98	19.20	4935
	4/9/2014	5-20	4943.98	8.94	19.20	4935.04
	12/2/2014	5-20	4943.98	8.83	19.28	4935.15
VP-2	3/24/1994	---	4943.73	8.96	NA	4934.77
	1/26/2000	---	4943.73	8.93	NA	4934.80
	4/26/2000	---	4943.73	8.53	NA	4935.20
	7/27/2000	---	4943.73	8.44	12.57	4935.29
	2/6/2001	---	4943.73	8.55	12.57	4935.18
	5/29/2001	---	4943.73	8.44	12.57	4935.29
	10/1/2001	---	4943.73	8.40	12.65	4935.33
	1/3/2002	---	4943.73	8.71	12.57	4935.02
	4/1/2002	---	4943.73	8.94	12.57	4934.79
	7/3/2002	---	4943.73	8.63	12.57	4935.10
	9/24/2002	---	4943.73	8.73	12.57	4935.00
	1/10/2003	---	4943.73	8.83	12.57	4934.90
	7/17/2003	---	4943.73	8.81	12.57	4934.92
	10/4/2006	---	4943.73	8.43	12.72	4935.30
	5/8/2009	---	4943.73	8.07	12.50	4935.66
	8/13/2011	---	4943.73	7.23	12.50	4936.5
	4/2/2013	---	4943.73	8.33	12.50	4935.4
	1/30/2014	---	4943.73	8.61	12.50	4935.12
	4/9/2014	---	4943.73	8.57	12.50	4935.16
	12/2/2014	---	4943.73	8.46	12.80	4935.27
VP-5	3/7/1996	---	4943.52	8.55	NA	4934.97
	1/26/2000	---	4943.52	8.61	NA	4934.91
	4/26/2000	---	4943.52	8.17	NA	4935.35
	7/27/2000	---	4943.52	8.18	12.17	4935.34
	5/29/2001	---	4943.52	8.01	12.17	4935.51
	10/2/2001	---	4943.52	8.10	12.05	4935.42
	1/3/2002	---	4943.52	8.55	12.17	4934.97
	4/1/2002	---	4943.52	8.56	12.17	4934.96
	7/3/2002	---	4943.52	8.27	12.17	4935.25
	9/24/2002	---	4943.52	8.44	12.17	4935.08
	1/10/2003	---	4943.52	8.53	12.17	4934.99
	7/17/2003	---	4943.52	8.56	12.17	4934.96
	10/4/2006	---	4943.52	8.10	12.12	4935.42

TABLE 1
Fluid Level Measurements
Barelas Bridge Site
Facility # 29854; Release ID # 54
Albuquerque, Bernalillo County, New Mexico

Well ID	Date	Screen Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC)	Total Depth (ft BTOC)	Potentiometric Surface Elevation (ft amsl)
VP-5	5/8/2009	---	4943.52	7.78	11.90	4935.74
	8/13/2011	---	4943.52	7.97	11.90	4935.55
	4/2/2013	---	4943.52	8.06	11.90	4935.46
	1/30/2014	---	4943.52	8.30	11.90	4935.22
	4/9/2014	---	4943.52	8.25	11.90	4935.27
	12/2/2014	---	4943.52	8.19	12.42	4935.33

Notes:

[1] = Value calculated from: Potentiometric Surface Elevation = Top of Casing Elevation - Depth to Water

amsl = above mean sea level

bgs = below ground surface

BTOC = below top of casing

ft = feet

* Root ball obstruction in well

TABLE 2
Groundwater Quality Parameters
Barelas Bridge Site
Facility # 29854; Release ID # 54
Albuquerque, Bernalillo County, New Mexico

Well ID	Date	Parameter Monitoring Time	DTW (ft BTOC)	Temperature		Specific Conductivity (µS/cm)	pH	DO (mg/L)	ORP (mV)
				°C	°F				
MW-4	12/2/2014	Initial	8.09	17.10	62.78	429	7.62	35.09	-37.5
		Final	8.12	18.48	65.26	486	7.21	3.27	-141.2
MW-7	12/2/2014	Initial	8.11	17.39	63.30	435	7.54	6.56	-202.0
		Final	8.14	17.68	63.82	452	7.62	2.09	-174.4
MW-8	12/2/2014	Initial	9.37	18.35	65.03	534	7.71	10.24	-157.5
		Final	9.40	18.98	66.16	605	7.47	3.93	-262.3
MW-9	12/2/2014	Initial	8.83	17.91	64.24	439	7.42	8.72	-149.2
		Final	8.85	17.93	64.27	431	7.36	3.03	-230.4
VP-2	12/2/2014	Initial	8.48	18.73	65.71	508	2.71	6.32	199.3
		Final	8.55	18.96	66.13	509	5.99	2.35	-120.7
VP-5	12/2/2014	Initial	8.20	17.87	64.17	817	6.90	3.96	-130.2
		Final	8.29	18.31	64.96	735	7.23	3.52	-200.5

Notes:
°C = degrees Celsius
°F = degrees Fahrenheit
µS/cm = microSiemens per centimeter
DO = dissolved oxygen
mg/L = milligrams per liter
mV = millivolts
ORP = oxidation reduction potential
DTW= Depth to water
BTOC = below top of casing

TABLE 3
Laboratory Analytical Results - Groundwater
Barelas Bridge Site
Facility # 29854; Release ID # 54
Albuquerque, Bernalillo County, New Mexico

Sample ID	Date	Organics[1]									Inorganics		
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX[2]	MTBE	EDB[3]	EDC	Total Naphthalenes[4]	Dissolved Iron	Dissolved Manganese	Dissolved Lead
		Concentration (µg/L)									Concentration (mg/L)		
NMWQCC Standard		10	750	750	620	NE	100*	0.1	10	30	1.0	0.2	0.05
MW-4	10/30/1990	**590**	35.3	518	**1,871**	3,015	-	-	-	-	-	-	-
	11/29/1990	**49**	1.0	8.4	14	72	-	-	-	-	-	-	-
	3/7/1995	**40**	1.0	54	<2.0	95.0	NA	NA	NA	NA	-	-	-
	6/6/1995	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA	NA	-	-	-
	1/30/2000	5.4	<1.0	<1.0	2.6	8.0	<1.0	**<1.0**	<1.0	<2.0	-	-	-
	4/26/2000	2.9	<1.0	<1.0	<1.0	2.9	<1.0	**<1.0**	<1.0	<2.0	-	-	-
	7/27/2000	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<2.0	-	-	-
	2/6/2001	2.5	<1.0	<1.0	1.5	4.0	<1.0	**<1.0**	<1.0	3.9	**1.19**	**1.76**	<0.005
	5/29/2001	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<6.0	0.17	**1.97**	<0.005
	10/1/2001	<1.0	<1.0	<1.0	<3.0	<6.0	<1.0	**<1.0**	<1.0	<15.0	-	-	-
	1/3/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	4/1/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	7/3/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	9/24/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	1/10/2003	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	7/17/2003	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	0.010	<1.0	<10	-	-	-
	10/4/2006	<1.0	<1.0	<1.0	<3.0	<3.0	<1.5	-	-	<10	-	-	-
	5/8/2009	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<10	-	-	-
	8/13/2011	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<4.0	-	-	-
	4/2/2013	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<4.0	-	-	-
	1/30/2014	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<4.0	-	-	-
	4/9/2014	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<4.0	-	-	-
	12/2/2014	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	<0.010	<1.0	2.1	0.60	**0.78**	<0.0050
MW-7	10/30/1990	9.8	3	20.8	4.9	38.5	-	-	-	-	-	-	-
	9/20/1995	**78**	2.1	9.9	8.7	98.7	NA	NA	NA	NA	-	-	-
	12/5/1995	6.0	1.2	2.2	<2.0	9.4	NA	NA	NA	NA	-	-	-
	3/7/1996	1.9	<1.0	<1.0	<2.0	1.9	NA	NA	NA	NA	-	-	-
	10/2/2001	<1.0	<1.0	<1.0	3.3	3.3	<1.0	<1.0	<1.0	<15	-	-	-
	1/3/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<10	-	-	-

TABLE 3
Laboratory Analytical Results - Groundwater
Barelas Bridge Site
Facility # 29854; Release ID # 54
Albuquerque, Bernalillo County, New Mexico

Sample ID	Date	Organics[1]									Inorganics		
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX[2]	MTBE	EDB[3]	EDC	Total Naphthalenes[4]	Dissolved Iron	Dissolved Manganese	Dissolved Lead
		Concentration (µg/L)									Concentration (mg/L)		
NMWQCC Standard		10	750	750	620	NE	100*	0.1	10	30	1.0	0.2	0.05
MW-7	4/1/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<10	-	-	-
	7/3/2002	2.6	<1.0	<1.0	3.0	5.6	<1.0	<1.0	<1.0	28.8	-	-	-
	9/24/2002	3.1	<1.0	<1.0	1.7	4.8	<1.0	<1.0	<1.0	22.8	-	-	-
	1/10/2003	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<10	-	-	-
	7/17/2003	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	0.010	<1.0	<10	-	-	-
	10/4/2006	<1.0	<1.0	<1.0	<3.0	<3.0	<1.5	-	-	<10	-	-	-
	5/8/2009	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<10	-	-	-
	8/13/2011	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<4.0	-	-	-
	12/2/2014	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	<0.010	<1.0	<4.0	0.33	**0.69**	<0.0050
MW-8	10/30/1990	**220**	120	**960**	**1,140**	-	-	-	-	-	-	-	-
	9/20/1995	**11**	19	190	74	294.0	NA	NA	NA	NA	-	-	-
	12/5/1995	8.6	8.3	49	18	83.9	NA	NA	NA	NA	-	-	-
	3/7/1996	**71**	24	400	150	645.0	NA	NA	NA	NA	-	-	-
	1/30/2000	**<10**	<10	150.0	5.7	155.7	<10	**<10**	**<10**	**98**	-	-	-
	4/26/2000	3.2	2.2	<1.0	35	40.4	<1.0	**<1.0**	<1.0	**136**	-	-	-
	7/27/2000	6.0	5.2	150	61	222.2	<1.0	**<1.0**	<1.0	**140**	-	-	-
	2/6/2001	**<10**	<10	130	43	173	<10	**<10**	**<10**	**140**	0.68	**0.38**	<0.005
	5/29/2001	4.2	2.6	110	57	173.8	<2.0	**<2.0**	<2.0	**261**	**1.12**	**0.36**	<0.005
	10/2/2001	**<10**	<10	90	51	141	<10	**<10**	**<10**	**120**	-	-	-
	1/4/2002	3.0	3.2	35	50	91.2	<2.0	**<2.0**	<2.0	**313**	-	-	-
	4/1/2002	<5.0	<5.0	100	43	143	<5.0	**<5.0**	<5.0	**273**	-	-	-
	7/3/2002	<5.0	<5.0	86	40	126	<5.0	**<5.0**	<5.0	**202**	-	-	-
	9/24/2002	<5.0	<5.0	58	29	87	<5.0	**<5.0**	<5.0	**238**	-	-	-
	1/10/2003	<2.0	<2.0	57	38	95	<2.0	**<2.0**	<2.0	**284**	-	-	-
	7/17/2003	<5.0	<5.0	66	38	104	<5.0	0.010	<5.0	**310**	-	-	-
	10/4/2006	<2.0	<2.0	34	18	52	<3.0	-	-	**210**	-	-	-
	5/8/2009	<1.0	<1.0	24	8.0	32	<1.0	-	-	**92**	-	-	-
	8/13/2011	**<10**	<10	32	<15	32	<10	-	-	**72**	-	-	-

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Sample ID	Date	Organics[1]									Inorganics		
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX[2]	MTBE	EDB[3]	EDC	Total Naphthalenes[4]	Dissolved Iron	Dissolved Manganese	Dissolved Lead
		Concentration (µg/L)									Concentration (mg/L)		
NMWQCC Standard		10	750	750	620	NE	100*	0.1	10	30	1.0	0.2	0.05
MW-8	4/2/2013	<5.0	<5.0	31	10	41	<5.0	-	-	**149**	-	-	-
	1/30/2014	1.3	1.4	33	8.2	44	<1.0	-	-	**134**	-	-	-
	4/9/2014	<1.0	1.2	32	7.3	41	<1.0	-	-	**113**	-	-	-
	12/2/2014	<5.0	<5.0	17	<7.5	17	<5.0	<0.010	<5.0	**62**	0.076	**0.34**	<0.0050
MW-9	9/20/1995	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA	NA	-	-	-
	12/5/1995	<0.5	<1.0	<1.0	14	14	NA	NA	NA	NA	-	-	-
	3/7/1996	<0.5	<1.0	<1.0	3.7	3.7	NA	NA	NA	NA	-	-	-
	1/3/2002	9.4	6.9	59	51	126.3	<1.0	**<1.0**	<1.0	2.7	-	-	-
	7/3/2002	5.1	1.9	16	18	41.0	<1.0	**<1.0**	<1.0	28.8	-	-	-
	9/24/2002	9.2	<1.0	25	20	54.2	1.7	**<1.0**	<1.0	13	-	-	-
	1/10/2003	2.2	<1.0	<1.0	<1.0	2.2	2.2	**<1.0**	<1.0	<10	-	-	-
	7/17/2003	**98**	9.9	2.4	10	120.3	7.1	0.010	<1.0	<10	-	-	-
	10/4/2006	**62**	44	11	42	159	<1.5	-	-	6.9	-	-	-
	5/8/2009	**12**	7.1	45	68	132	<1.0	-	-	**77**	-	-	-
	8/13/2011	**750**	150	270	**880**	2,050	12	-	-	**93**	-	-	-
	4/2/2013	**320**	34	<10	150	504	<10	-	-	**<40**	-	-	-
	1/30/2014	**190**	59	200	340	789	<2.0	-	-	**67**	-	-	-
	4/9/2014	**100**	49	72	110	331	<1.0	-	-	**32.4**	-	-	-
	12/2/2014	6.4	<1.0	14	5.5	26	<1.0	<0.010	<1.0	2.3	0.31	**0.81**	<0.0050
VP-2	3/24/1994	**32**	20	94	150	296	NA	NA	NA	NA	-	-	-
	1/30/2000	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<2.0	-	-	-
	4/26/2000	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<2.0	-	-	-
	7/27/2000	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	11	-	-	-
	2/6/2001	<1.0	<1.0	<1.0	2.0	2.0	<1.0	**<1.0**	<1.0	13	0.70	**0.92**	<0.005
	5/29/2001	<1.0	<1.0	1.2	4.9	6.1	<1.0	**<1.0**	<1.0	**36.7**	0.83	**1.21**	<0.005
	10/1/2001	<1.0	<1.0	<1.0	<3.0	<6.0	<1.0	**<1.0**	<1.0	<15	-	-	-
	1/3/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	4/1/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	7/3/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-

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Laboratory Analytical Results - Groundwater
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Sample ID	Date	Organics[1]									Inorganics		
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX[2]	MTBE	EDB[3]	EDC	Total Naphthalenes[4]	Dissolved Iron	Dissolved Manganese	Dissolved Lead
		Concentration (µg/L)									Concentration (mg/L)		
NMWQCC Standard		10	750	750	620	NE	100*	0.1	10	30	1.0	0.2	0.05
VP-2	9/24/2002	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	3.4	-	-	-
	1/10/2003	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	**<1.0**	<1.0	<10	-	-	-
	7/17/2003	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	0.010	<1.0	<10	-	-	-
	10/4/2006	<1.0	<1.0	<1.0	<3.0	<3.0	<1.5	-	-	<10	-	-	-
	5/8/2009	<1.0	<1.0	1.3	1.6	2.9	<1.0	-	-	**37.3**	-	-	-
	8/13/2011	<1.0	<1.0	2.1	2.4	4.5	<1.0	-	-	**78**	-	-	-
	4/2/2013	<2.0	<2.0	<2.0	<3.0	<3.0	<2.0	-	-	**34.7**	-	-	-
	1/30/2014	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	2.2	-	-	-
	4/9/2014	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	-	-	<4.0	-	-	-
	12/2/2014	<1.0	<1.0	<1.0	<1.5	<1.5	<1.0	<0.010	<1.0	3.6	0.11	**0.59**	<0.0050
VP-5	12/5/1995	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA	NA	-	-	-
	3/7/1996	9.5	<1.0	99	81	189.5	NA	NA	NA	NA	-	-	-
	1/30/2000	<5.0	<5.0	20	10	30.0	<5.0	**<5.0**	<5.0	**80**	-	-	-
	4/26/2000	<1.0	1.4	14	7.1	22.5	<1.0	**<1.0**	<1.0	**142**	-	-	-
	7/27/2000	<1.0	1.8	20	12	33.8	<1.0	**<1.0**	<1.0	**89**	-	-	-
	5/29/2001	<1.0	1.2	21	17	39.2	<1.0	**<1.0**	<1.0	**330**	**3.42**	**0.53**	<0.005
	10/2/2001	<5.0	<5.0	44	35	79	<5.0	**<5.0**	<5.0	**320**	-	-	-
	1/3/2002	<5.0	<5.0	50	31	81	<5.0	**<5.0**	<5.0	**340**	-	-	-
	4/1/2002	<1.0	<1.0	100	44	144	<1.0	**<1.0**	<1.0	**640**	-	-	-
	7/3/2002	<5.0	<5.0	32	19	51	<5.0	**<5.0**	<5.0	**350**	-	-	-
	9/24/2002	<5.0	<5.0	34	18	52	<5.0	**<5.0**	<5.0	**510**	-	-	-
	1/10/2003	<5.0	<5.0	61	27	88	<5.0	**<5.0**	<5.0	**510**	-	-	-
	7/17/2003	<5.0	<5.0	110	54	164	<5.0	0.010	<5.0	**930**	-	-	-
	10/4/2006	**<10**	<10	21	<30	21.0	<15	-	-	**430**	-	-	-
	5/8/2009	<5.0	<5.0	7.1	<7.5	7.1	<5.0	-	-	**386**	-	-	-
	8/13/2011	1.4	1.8	12	2.4	17.6	<1.0	-	-	**469**	-	-	-
	4/2/2013	<2.0	<2.0	7.7	<3.0	7.7	<2.0	-	-	**270**	-	-	-
	1/30/2014	<1.0	1.0	3.0	<1.5	4.0	<1.0	-	-	**187**	-	-	-
	4/9/2014	<1.0	1.2	4.5	<1.5	5.7	<1.0	-	-	**217**	-	-	-
	12/2/2014	<5.0	<10	<10	<15	<15	<10	<0.010	<5.0	**280**	**1.0**	0.12	<0.0050

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Sample ID	Date	Organics[1]									Inorganics		
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX[2]	MTBE	EDB[3]	EDC	Total Naphthalenes[4]	Dissolved Iron	Dissolved Manganese	Dissolved Lead
		Concentration (µg/L)									Concentration (mg/L)		
NMWQCC Standard		10	750	750	620	NE	100*	0.1	10	30	1.0	0.2	0.05

Notes:

* = New Mexico Environment Department--Petroleum Storage Tank Bureau Action Level

- = Not Tested or Not Applicable

Bolding indicates values or RLs in excess of the NMWQCC Standard or PSTB Action Level.

[1] = Analyzed by U.S. EPA Method 8260B.

[2] = Total BTEX includes sum of benzene, toluene, ethylbenzene, and total xylenes. RL for BTEX = highest RL for individual compounds; when summing detections, values listed as "<" RL are assumed to be 0.

[3] = Analyzed by U.S. EPA Method 504.1 or 8260B.

[4] = Total naphthalenes includes the sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. RL for Total Naphthalenes = highest RL for individual compounds; when summing detections, values listed as "<" RL are assumed to be 0.

BTEX = benzene, toluene, ethyl benzene, and total xylenes

EDB = 1,2-dibromoethane

EDC = 1,2-dichloroethane

EPA = U.S. Environmental Protection Agency

µg/L = microgram(s) per liter

mg/L = milligrams per liter

MTBE = methyl tertiary-butyl ether

NE = None Established

NMWQCC = New Mexico Water Quality Control Commission

NMWQCC Standard = Groundwater Standards as defined by the State of New Mexico Water Quality Control Commission (NMWQCC, 2002)

RL = Laboratory reporting limit

APPENDIX A

Access Agreement

CONSENT FOR ACCESS TO PROPERTY

Name of Property Owner: Roberts Oil Co
Location of Property: 800 Bridge SW, Albuquerque, New Mexico

This is my consent to the New Mexico Environment Department (Department) and its authorized officers, employees, contractors, and representatives for access to the above-described Property for the following purposes:

- Collect groundwater samples from Site monitoring wells as part of groundwater monitoring activities.

The Department or its representative will provide the Property Owner written or oral notice prior to each entrance onto Property. This notice shall be given to:

Roberts Oil Co
408 Arizona Street SE
Albuquerque
New Mexico
87108
505.262.1607

Property Owner may observe activities on the Property, consistent with Occupational Health and Safety Regulations (see 29 CFR § 1910.120) and may split all samples collected at the Property. Property Owner is responsible for the provision of all equipment and accessories and for laboratory costs necessary to split samples.

Installations on the Property will be placed to minimize interference with the movement of vehicles and regular activities on the Property. Following completion of the project, the Department or its representative will properly abandon all wells, remove equipment, all materials, trash, fencing, and other associated items. The Department or its representative will otherwise return the property as close as possible to the pre-entrance condition.

This permission is given by me voluntarily with knowledge of my right to refuse and without coercion. I have had an opportunity to ask questions and all my questions have been answered to my satisfaction.

Signature Property Owner

11-21-14
Date

APPENDIX B

Field Notes and Groundwater Sampling Forms

Well ID	Time	Depth to Product	DTW	TD	Notes
⊙ MW-7	0847	ND	8.10	21.66	no bolts no lock
⊙ MW-4	0857	ND	8.09	10.60	no bolts no 12" WV no lock
⊙ VP-2	0916	ND	8.46	12.80	no bolts no 12" WV no lock
⊙ MW-8	0928	ND	9.37	13.32	no lock
⊙ VP-5	0933	ND	8.19	12.42	no lock
⊙ MW-9	1006	ND	8.83	19.28	no lock

*MW-4: Bottom feels soft; previous TD = 23 ft
↳ big root ball on TD probe. Tried to retrieve more root mass unsuccessful
WV = well vault
- Retrieved all bailers from well and disposed
*MW-8 PHC odor
*VP-5 full of water, must bail out before we can access well head

Calibrating YSI while Eileen bails
3 point pH ✓ conductivity ✓
ORP (244 mV) @ 15°C ✓
DO @ 650.3 mm Hg
Read 112.1% Calibrate to 85.6%

1030 VP-5 sampling out of order b/c of gas station traffic

Final parameters (stable)

Time	Pump Rate	Water Level	# pumped	DO
1059	0.15 L/min	8.29'	8L	3.52 mg/L

ORP	SpC	pH	Temp
-200.5 mV	735 µS/cm	7.23	18.31°C

(sampled @ 1103)

1115 - Break for lunch + bailer making

1240 - Set up at MW-8 for sampling

Final / Stabalized parameters:

Time	1317
Pump Rate	0.35
# (L)	6
DO (mg/L)	3.93
ORP (mV)	-262.3
SpC (mS/cm)	605
pH	7.47
Temp (°C)	18.98

Sample collected @ 1320

*ALL samples placed immediately on ice
*All purge water dumped on impermeable surface for evaporation

1345 at MW-9 for sampling

Stabelized parameters: dark color

Time: 1422 ∀: ~6L

Pump Rate: 0.4 L/min DO: 3.03 mg/L SpC: 431 µS/cm

Water level: 8.85' ORP: -230.4 mV pH: 7.36

sampled at 1425 Temp: 17.93°C

1445 @ MW-4 for sampling

could not bypass root ball w/ tbing

Final Parameters:

Time: 1513 DO: 3.27 mg/L

Pump Rate: 0.35 L/min ORP: -141.2 mV

Water level: 8.12' SpC: 498 µS/cm

∀ pumped: ~5L pH: 7.21

Temp: 18.48

*dark colored water w/ lots of organic matter floating around (roots)

Sampled @ 1517

1545 @ VP-2 to sample

* Really low initial pH ~2.7

* Taking longer than usual to stabalize (ORP & pH)

↓

other wells

Final parameters:

Time: 1642 DO: 2.35 mg/L

Pump Rate: 0.35 L/min ORP: -120.7 mV

Water level: 8.55 SpC: 509 µS/cm

∀ pumped: 14 pH: 5.99

Temp: 18.96

*Sample collected at 1645

*Parameters not yet stable but getting dark, traffic picking up at station + already waited 45 min

1705 at last well to sample

MW-7 Final parameters

Yappy Hour

Time: 1731

Pump Rate: 0.35 L/min SpC: 452 µS/cm

Water level: 8.14 pH: 7.62

∀ pumped: 6.5 Temp: 17.68

DO: 2.09 mg/L

ORP: -174.4 mV

Decon ✓

1750 offsite

Barelas Bridge GW Sampling EEW 12/02/14

0815 on site E. Woolsey + E. Marcillo

✓ Health & Safety meeting

Objectives - Locate wells w/ Eileen, collect DTW in each well, then collect water samples using low-flow methods for 8260, 504.1 + dissolved metals

Weather - cold + clear

Equipment: YSI 556 MPS
power station / air compressor
metal detector
water level meter (500 ft)
oil / water indicator
peristaltic pump
Tundra

* Recommend next sampler to bring more traffic cones (3-4) + maybe some sort of barricade (orange fencing) for sampling alone at busy gas station to increase visibility + create a safe zone

Low-Flow Sampling Logs

Site: Barclays Bridge
Monitoring Well ID: MW-7
Date: 12/2/14
Samplers: E. Woolsey

Monitoring Well Information

Diameter: 2" PVC
Depth to Product: ND
Total Depth: 21.66'
Depth to Water: 8.10'
Water Column Height: 13.56'
Screened Interval: 7-22'

$\frac{13.56}{2} = 6.78$

$+8.10$

$= 14.88$

Purging Information

Type of Pump: Peristaltic Pump
Water Quality Meter: YSI 556 MPS
Depth of Pump intake: 14.88 (~15)
Depth to water after pump insertion:
Calibration Performed: 3pt pH, SpC, ORP & DO

Sample Information

Sample Date/Time: 12/2/14 1734
Sample ID: MW-7
Samplers: E. Woolsey
Analysis: 8260B, 504.1, 200.7

Comments:

Signature: E. Woolsey
Date: 12/2/14

MW ID: MW-7

Time	Pumping Rate (0.1-0.5 L/min)	Water Level (ft) (goal of <0.33')	Volume Pumped (L)	DO (mg/l) ±10%	ORP (mV) ±10 mV	Spc (µS/cm) ±3%	pH ±0.1 unit	Temp (C°)	Notes
1713	—	8.11	—	6.52	−202.0	435	7.54	17.39	
1718	0.35	8.13	1.75	3.69	−196.8	448	7.72	17.72	
1721	0.35	8.14	~3	2.66	−194.3	445	7.73	17.71	
1725	0.35	8.14	~4	2.35	−191.1	454	7.70	17.71	
1728	0.35	8.14	5.5	2.14	−168.7	453	7.66	17.89	
1731	0.35	8.14	6.5	2.09	−174.4	452	7.62	17.68	

Low-Flow Sampling Logs

Site: Barclays Bridge — Monitoring Well ID: VP-2
Date: 12/2/14 — Samplers: E. Woolsey

Monitoring Well Information

Diameter: 2" PVC — Depth to Product: ND
Total Depth: 12.80' — Depth to Water: 8.46'
Water Column Height: 3.54' — Screened Interval: —

Purging Information

Type of Pump: Peristaltic — Water Quality Meter: YSI 556 MPS
Depth of Pump intake: 10.25' — Depth to water after pump insertion:
Calibration Performed: 3 pt pH, SpC, ORP + DO

Sample Information

Sample Date/Time: 12/2/14 1645 — Sample ID: VP-2
Samplers: E. Woolsey
Analysis: 8260B (VOCs); 504.1 (EDB); 200.7 (Dissolved Fe, Mn, Pb)

Comments:

Signature: [signature] — Date: 12/2/14

MW ID: VP-2

Time	Pumping Rate (0.1-0.5 L/min)	Water Level (ft) (goal of <0.33')	Volume Pumped (L)	DO (mg/l) ±10%	ORP (mV) ±10 mV	Spc (µS/cm) ±3%	pH ±0.1 unit	Temp (C°)	Notes
1600	—	8.48	—	6.32	199.3	508	2.71	18.73	
1605	0.35	8.50	2	3.80	144.2	503	2.82	18.98	Low pH
1608	0.35	8.53	3	2.72	40.5	503	3.79	18.99	
1611	0.35	8.49	4	2.52	-17.5	503	5.33	18.97	
1614	0.35	8.50	5	2.45	-67.2	505	6.04	19.01	
1621	0.35	8.52	~7	2.48	-114.8	505	6.56	18.99	
1624	0.35	8.52	8	2.51	-132.2	505	6.77	18.99	
1628	0.35	8.51	9	YSI turned off - waiting for stabilization					
1633	0.35	8.52	~12	2.54	-169.2	507	7.09	18.98	
1637	0.35	8.55	13	2.38	-189.7	510	7.25	18.97	
1642	0.35	8.55	14	2.35	-120.7	509	5.99	18.96	
sampling									
*	Not yet reached stabilization, but getting dark, traffic picking up at gas station + have waited 45 min								

Low-Flow Sampling Logs

Site: Bowlers Bridge
Monitoring Well ID: MW-4
Date: 12/2/14
Samplers: E. Woolsey

Monitoring Well Information

Diameter: 2" PVC
Depth to Product: ND
Total Depth: 10.60' (soft bottom / root ball)
Depth to Water: 8.09'
Water Column Height: 2.51'
Screened Interval: 3.5 - 18.5

Purging Information

Type of Pump: Peristaltic
Water Quality Meter: YSI MPS 5526
Depth of Pump intake: 9.35'
Depth to water after pump insertion:
Calibration Performed: 3pt pH, DO, SpC, ORP

Sample Information

Sample Date/Time: 12/2/14 1517
Sample ID: MW-4
Samplers: E. Woolsey
Analysis: 8260B (VOCs), 504.1 (EDB) + 200.7 (Dissolved Fe, Mn, Pb)

Comments:

Signature: E. Woolsey
Date: 12/2/14

18.5 - 8.09
= 10.41
÷ 2 = 5.2
8.09 + 5.2
= 13.3
(ideally)

Root ball might permit tube passage

otherwise ...
2.51 / 2 = 1.25
8.09 + 1.25
~ 9.35

MW ID: MW-4

Time	Pumping Rate (0.1-0.5 L/min)	Water Level (ft) (goal of <0.33')	Volume Pumped (L)	DO (mg/l) ±10%	ORP (mV) ±10 mV	Spc (µS/cm) ±3%	pH ±0.1 unit	Temp (C°)	Notes
1459	—	8.09	—	35.09	-37.5	429	7.67	17.10	dark color, lots
1504	0.35	8.11	~2	5.87	-129.9	458	7.35	18.54	of organic
1507	0.35	8.11	~2.5-3	3.95	-139.0	472	7.31	18.46	matter (roots)
1510	0.35	8.11	~3.5-4	3.36	-140.5	481	7.24	18.51	
1513	0.35	8.12	~5L	3.27	-141.2	486	7.21	18.48	

Low-Flow Sampling Logs

Site: Barclay Bridge
Monitoring Well ID: MW-9
Date: 12/2/14
Samplers: E. Woolsey

Monitoring Well Information

Diameter: 2" ~~Steel~~ Cap PVC
Depth to Product: NI
Total Depth: 19.28'
Depth to Water: 8.83'
Water Column Height: 10.45'
Screened Interval: 5-20'

$\frac{10.45}{2} = 5.225 + 8.83 = 14.055$

Purging Information

Type of Pump: Peristaltic
Water Quality Meter: YSI 556 MPS
Depth of Pump intake: 14'
Depth to water after pump insertion:
Calibration Performed: 3pt pH, ORP, DO, SpC

Sample Information

Sample Date/Time: 12/2/14 1425
Sample ID: MW-9
Samplers: E. Woolsey
Analysis: 8260B (VOCs), 504.1 (EDB) + 200.7 (Dissolved Fe, Mn, Pb)

Comments:

Signature: E. Woolsey
Date: 12/2/14

filled 250 mL in 35 sec

MW-9

MW ID:

Time	Pumping Rate (0.1-0.5 L/min)	Water Level (ft) (goal of <0.33')	Volume Pumped (L)	DO (mg/l) ±10%	ORP (mV) ±10 mV	Spc (µS/cm) ±3%	pH ±0.1 unit	Temp (C°)	Notes
1406	—	8.83	—	8.72	-149.2	439	7.42	17.91	dark color, PHC odor
1413	0.4	8.85	2.5	3.99	-213.9	433	7.17	18.06	
1416	0.4	8.85	3.5-4	3.40	-223.3	431	7.25	17.96	
1419	0.4	8.85	~4.5	3.08	-226.5	431	7.33	19.95	
1422	0.4	8.85	~6	3.03	-230.4	431	7.36	17.93	

Low-Flow Sampling Logs

Site: Barrelas Bridge
Monitoring Well ID: MW-8
Date: 12/2/14
Samplers: E. Woolsey

Monitoring Well Information

Diameter: 2" Steel
Depth to Product: ND
Total Depth: 13.32'
Depth to Water: 9.37'
Water Column Height: 3.95'
Screened Interval: 8-13'

Purging Information

Type of Pump: Peristaltic
Water Quality Meter: YSI 556 MPS
Depth of Pump intake: 10.5'
Depth to water after pump insertion:
Calibration Performed: 3pt pH, SpC, ORP, DO

Sample Information

Sample Date/Time: 12/2/14 1320
Sample ID: MW-8
Samplers: E. Woolsey
Analysis: 8260B (VOCs), 504.1 (EDB), 200.7 (Dissolved Fe, Mn, Pb)

Comments:

Signature: E. Woolsey
Date: 12/2/14

13.32
- 9.37
3.95

÷2 = 1.975

~~13.32~~ ~2
~~9.37~~
3.

9.37 + 2
~10.5

filled 250 mL in sec $\frac{.25\,L}{sec} \times \frac{60s}{1\,min} =$ L/min

MW ID: MW-8

Time	Pumping Rate (0.1-0.5 L/min)	Water Level (ft) (goal of <0.33')	Volume Pumped (L)	DO (mg/l) ±10%	ORP (mV) ±10 mV	Spc (µS/cm) ±3%	pH ±0.1 unit	Temp (C°)	Notes
1300		9.37							PHC odor
				10.24	-157.5	534	7.71	18.35	
1305	0.35	9.41	2L	5.64	-248.8	562	7.63	18.97	
1308	0.35	9.41	3	4.91	-254.8	567	7.59	18.99	
1311	0.35	9.42	4	4.29	-259.6	605	7.52	18.96	
1314	0.35	9.41	5	4.04	-261.2	589	7.49	18.99	
1317	0.35	9.40	6	3.93	-262.3	605	7.47	18.98	

Low-Flow Sampling Logs

Site: Barelas Bridge
Monitoring Well ID: VP-5
Date: 12/2/14
Samplers: E. Woolsey & E. Marcillo

Monitoring Well Information

Diameter: 2" PVC
Depth to Product: ND
Total Depth: 12.42 ft
Depth to Water: 8.19 ft
Water Column Height: 4.23 ft
Screened Interval: —

12.42
- 8.19
4.23
÷2 = 2.115

Purging Information

Type of Pump: Peristaltic
Water Quality Meter: YSI 5526 MPS
Depth of Pump intake: 10.30 ft
Depth to water after pump insertion:
Calibration Performed: 3pt pH, SpC, ORP, DO

8.19
+ 2.115
10.30

Sample Information

Sample Date/Time: 12/2/14 1103
Sample ID: VP-5
Samplers: E. Woolsey & E. Marcillo
Analysis: 8260B (VOCs), 504.1 (EDB), & 200.7 (Dissolved Fe, Mn, Pb)

Comments:

Signature: E. Woolsey
Date: 12/2/14

filled 250 mL in 45 sec.

$\left(\frac{.25 L}{45 sec}\right)\left(\frac{60 s}{1 m}\right) = 0.08 L/min$

MW ID: VP-5

Time	Pumping Rate (0.1-0.5 L/min)	Water Level (ft) (goal of <0.33')	Volume Pumped (L)	DO (mg/l) ±10%	ORP (mV) ±10 mV	Spc (µS/cm) ±3%	pH ±0.1 unit	Temp (C°)	Notes
1042		8.20	initial	64.4%	-130.2	817	6.90	17.87	
1046	0.1	8.22	3 L	3.96 mg/L	-173.9	777	7.09	18.15	slight PHC
1050	0.08	8.23	4L	3.51	-184.9	755	7.23	18.00	odor, dark
1053	0.08	8.25	6L	3.46	-192.9	732	7.26	18.11	color, dirt
1057	0.15	8.27	7L	3.50	-201.6	733	7.25	18.39	in water
1059	0.15	8.29	8L	3.52	-200.5	735	7.23	18.31	

APPENDIX C

Historical Fluid Levels and Groundwater Chemistry Data

TABLE 1

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION
800 BRIDGE STREET S.W. SITE
GROUND-WATER LEVELS

DATE	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
10/31/90	4933.50	4933.35	4933.37	4934.67	4934.28	4934.15	4934.58	4934.98
11/14/90	4933.31	4933.15	4933.13	4934.55	4934.09	4934.02	4934.45	4934.92
11/28/90	4933.08	4932.91	4932.93	4934.56	4933.62	4933.54	4934.04	4934.76
11/29/90	4933.05	4932.94	4932.91	4934.53	4933.60	4933.53	4934.03	4934.75
12/12/90	4933.04	4932.92	4932.89	4934.50	4933.58	4933.51	4934.11	4934.71

TABLE 2

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION
RECORDS OF WATER QUALITY
COLLECTED BY LEGGETTE, BRASHEARS & GRAHAM, INC.
800 BRIDGE SITE

DATE	SAMPLE NO.	PPB	PPB	PPB	PPB	PPB	PPM
		BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	TVH
10/5/90	TAP WATER 140 LaVega	U	U	U	U		U
10/5/90	TAP WATER 152 LeVega	U	U	U	U		U
10/11/90	TRIP BLANK	U	U	U	1.6	U	U
10/15/90	AH-1	2	1.8	U	U	U	U
10/15/90	AH-2	2600*	1400*	1900*	14000*	U	73.6
10/15/90	AH-3	1.5	0.6	1.4	0.8	U	1
10/15/90	AH-4	23*	18	150	22	U	15.7
10/15/90	TRIP BLANK	U	U	0.7	3	U	U
10/16/90	AH-5	23*	0.8	0.7	10	U	1
10/30/90	MW-1	2.6	0.5	U	1.7		U
10/30/90	MW-2	U	0.2	U	1		U
10/30/90	MW-3	U	0.4	U	1.3		U
10/30/90	MW-4	590*	35.3	518.4	1871.1*		5
10/30/90	MW-5	U	0.5	U	1.5		U
10/30/90	MW-6	10.7*	33.3	32.7	175.5		4
10/30/90	MW-7	9.8	3	20.8	4.9		1
10/30/90	MW-8	220*	120	960*	1140*		9
10/30/90	FIELD BLANK	U	0.5	U	0.8		U
10/30/90	TRIP BLANK	U	0.7	U	1.5		U
10/31/90	TAP WATER 153 LaVega	U	0.6	U	2		U
11/27/90	TRIP BLANK	U	U	U	U		
11/28/90	MW-2	U	1.1	U	0.6		0.7
11/29/90	MW-4	49	1	8.4	14		0.9
NMEID Action Levels		10	750	750	620	100	

* Concentration is above NMEID action level

U = Undetected

ppb = Parts per billion

ppm = Parts per million

TVH = Total volatile hydrocarbons

TABLE 3

NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION
RECORDS OF WATER QUALITY SAMPLES
COLLECTED BY ALBUQUERQUE ENVIRONMENTAL HEALTY DEPARTMENT
800 BRIDGE STREET SW

SAMPLE DATE	LOCATION	PPB BENZENE	PPB TOLUENE	PPB ETHYL-BENZENE	PPB TOTAL XYLENES	PPM IRON	PPM MANGANESE	PPM LEAD	PPM ZINC
8/8/89	NW 800 BRDG	10*	190	0	2				
8/8/89	NE 800 BRDG	70*	220	68	44				
8/8/89	SW 800 BRDG	U	250	U	U				
8/8/89	SE 800 BRDG	500*	120	930*	370				
	A-1	1	U	U	U				
9/12/89	A-2	5700*	4100*	29000*	20700*	10.2*	1.78*	0.011	0.082
9/12/89	A-3	2.6	4.1	25	18.9	U	1.12*	U	0.02
9/12/89	A-4	U	U	U	U				
9/13/89	A-5	10000*	7000*	14500*	40500*				
9/13/89	A-6	1650*	160	1620*	930*				
9/26/89	A-7	3900*	7500*	9700*	30500*	12.5*	1.55*	0.026	0.052
9/26/89	A-8	160*	490	2100*	9500*	7.5*	0.601*	0.029	0.051
9/27/89	A-9	26*	5	8.8	7.4	0.568	1.14*	U	0.019
10/11/89	A-11	7700*	2800*	5700*	19000*	12.2*	1.35*	0.018	0.071
10/11/89	A-12	U	U	U	U	0.423	0.36*	U	0.013
10/10/89	A-13	2000*	U	U	U	6.96*	0.992*	0.012	0.034
11/8/89	A-14	U	U	U	U	0.859	0.451*	U	0.018
11/8/89	A-15	300*	U	U	U	2.45*	1.08*	0.003	0.021
11/8/89	A-16	U	U	U	U	0.289	0.41	U	U
2/19/90	MW-1	4.8	7.2	U	U				
2/19/90	MW-2	5.7	7.2	U	U				
2/19/90	MW-3	U	2.6	U	U				
2/19/90	MW-4	190*	25	280	865*				
9/13/89	145 LA VEGA	U	U	U	U				
8/10/89	183 RIVERSIDE	U	U	U	U				
8/11/89	183 RIVERSIDE	U	U	U	U				
10/4/89	154 LA VEGA	U	U	U	U				
10/4/89	152 LA VEGA	U	U	U	U				
10/16/89	153 LA VEGA	U	U	U	U				
NMEID Action Levels		10	750	750	620	1	0.2	0.05	10

* Concentration is above NMEID Action Level
U = Undetected
Ppb = Parts per billion
Ppm = Parts per million

Barelas Bridge
800 Bridge Blvd, SW
Albuquerque, New Mexico
PSTB Facility #4608001 / 29854

WESTERN TECHNOLOGIES INC.

GROUND WATER ELEVATION DATA
TABLE 1

MONITOR WELL NUMBER	DATE	CASING RIM ELEVATION (FEET)	DEPTH TO BOTTOM (FEET)	BOTTOM OF CASING ELEVATION (FEET)	DEPTH TO GROUND WATER (FEET)	DEPTH TO PRODUCT (FEET)	PRODUCT THICKNESS (FEET)	WATER COLUMN THICKNESS (FEET)	POTENTIOMETRIC SURFACE ELEVATION (FEET)
MW-1	01/06/00	4942.99	8.24	4934.75	Dry	NA	NA	Dry	Dry
MW-2	05/30/03	Plugged and Abandoned							
	01/06/00	4942.47	5.94	4936.53	Dry	NA	NA	Dry	Dry
MW-3	05/30/03	Appears to be plugged and abandoned before May 2003							
	01/26/00	4942.03	20.47	4921.56	8.65	NA	NA	11.82	4933.38
	01/06/00	4942.03	20.47	4921.56	8.59	NA	NA	11.88	4933.44
	03/07/96	4942.03	20.47	4921.56	8.51	NA	NA	11.96	4933.52
MW-4	07/17/03	4943.23	16.50	4926.73	8.45	NA	NA	8.05	4934.78
	01/10/03	4943.23	16.50	4926.73	8.35	NA	NA	8.15	4934.88
	09/24/02	4943.23	16.50	4926.73	8.33	NA	NA	8.17	4934.90
	07/03/02	4943.23	16.50	4926.73	8.30	NA	NA	8.20	4934.93
	04/01/02	4943.23	16.50	4926.73	8.48	NA	NA	8.02	4934.75
	01/03/02	4943.23	16.50	4926.73	8.43	NA	NA	8.07	4934.80
	10/01/01	4943.23	16.50	4926.73	8.00	NA	NA	8.50	4935.23
	05/29/01	4943.23	16.48	4926.75	8.08	NA	NA	8.40	4935.15
	02/06/01	4943.23	16.48	4926.75	8.19	NA	NA	8.29	4935.04
	07/27/00	4943.23	16.48	4926.75	9.04	NA	NA	7.44	4934.19
	04/26/00	4943.23	16.48	4926.75	9.16	NA	NA	7.32	4934.07
	01/26/00	4943.23	16.48	4926.75	8.65	NA	NA	7.83	4934.58
	01/06/00	4943.23	16.48	4926.75	8.51	NA	NA	7.97	4934.72
	03/07/96	4943.23	16.48	4926.75	8.48	NA	NA	8.00	4934.75
MW-5	05/30/03	Plugged and Abandoned							
	01/26/00	4942.18	21.48	4920.70	8.23	NA	NA	13.25	4933.95
	01/06/00	4942.18	21.48	4920.70	8.14	NA	NA	13.34	4934.04
	03/07/96	4942.18	21.48	4920.70	8.07	NA	NA	13.41	4934.11

Barelas Bridge
800 Bridge Blvd, SW
Albuquerque, New Mexico
PSTB Facility #4608001 / 29854

WESTERN TECHNOLOGIES INC.

GROUND WATER ELEVATION DATA
TABLE 1

MONITOR WELL NUMBER	DATE	CASING RIM ELEVATION (FEET)	DEPTH TO BOTTOM (FEET)	BOTTOM OF CASING ELEVATION (FEET)	DEPTH TO GROUND WATER (FEET)	DEPTH TO PRODUCT (FEET)	PRODUCT THICKNESS (FEET)	WATER COLUMN THICKNESS (FEET)	POTENTIOMETRIC SURFACE ELEVATION (FEET)
MW-6	05/30/03	Plugged and Abandoned							
	01/26/00	4944.59	13.16	4931.43	8.36	NA	NA	4.80	4936.23
	01/06/00	4944.59	13.16	4931.43	9.37	NA	NA	3.79	4935.22
	03/07/96	4944.59	13.16	4931.43	9.22	NA	NA	3.94	4935.37
MW-7	07/17/03	4942.94	21.45	4921.49	8.53	NA	NA	12.92	4934.41
	01/10/03	4942.94	21.45	4921.49	8.45	NA	NA	13.00	4934.49
	09/24/02	4942.94	21.45	4921.49	8.45	NA	NA	13.00	4934.49
	07/03/02	4942.94	21.45	4921.49	8.40	NA	NA	13.05	4934.54
	04/01/02	4942.94	21.45	4921.49	8.66	NA	NA	12.79	4934.28
	01/03/02	4942.94	21.45	4921.49	8.50	NA	NA	12.95	4934.44
	10/02/01	4942.94	21.45	4921.49	8.20	NA	NA	13.25	4934.74
	03/07/96	4942.94	21.45	4921.49	8.61	NA	NA	12.84	4934.33
MW-8	07/17/03	4944.59	13.16	4931.43	9.71	NA	NA	3.45	4934.88
	01/10/03	4944.59	13.16	4931.43	9.68	NA	NA	3.48	4934.91
	09/24/02	4944.59	13.16	4931.43	9.61	NA	NA	3.55	4934.98
	07/03/02	4944.59	13.16	4931.43	9.53	NA	NA	3.63	4935.06
	04/01/02	4944.59	13.16	4931.43	9.73	NA	NA	3.43	4934.86
	01/04/02	4944.59	13.16	4931.43	9.63	NA	NA	3.53	4934.96
	10/02/01	4944.59	13.16	4931.43	9.35	NA	NA	3.81	4935.24
	05/29/01	4944.59	13.16	4931.43	9.32	NA	NA	3.84	4935.27
	02/06/01	4944.59	13.16	4931.43	9.41	NA	NA	3.75	4935.18
	07/27/00	4944.59	13.16	4931.43	9.32	NA	NA	3.84	4935.27
	04/26/00	4944.59	13.16	4931.43	9.40	NA	NA	3.76	4935.19
	01/26/00	4944.59	13.16	4931.43	9.82	NA	NA	3.34	4934.77
	01/06/00	4944.59	13.16	4931.43	9.82	NA	NA	3.34	4934.77
	03/07/96	4944.59	13.16	4931.43	9.74	NA	NA	3.42	4934.85

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WESTERN TECHNOLOGIES INC.

GROUND WATER ELEVATION DATA
TABLE 1

MONITOR WELL NUMBER	DATE	CASING RIM ELEVATION (FEET)	DEPTH TO BOTTOM (FEET)	BOTTOM OF CASING ELEVATION (FEET)	DEPTH TO GROUND WATER (FEET)	DEPTH TO PRODUCT (FEET)	PRODUCT THICKNESS (FEET)	WATER COLUMN THICKNESS (FEET)	POTENTIOMETRIC SURFACE ELEVATION (FEET)
MW-9	07/17/03	4943.98	19.43	4924.55	9.22	NA	NA	10.21	4934.76
	01/10/03	4943.98	19.43	4924.55	9.15	NA	NA	10.28	4934.83
	09/24/02	4943.98	19.43	4924.55	9.10	NA	NA	10.33	4934.88
	07/03/02	4943.98	19.43	4924.55	9.00	NA	NA	10.43	4934.98
	01/26/00	4943.98	19.43	4924.55	9.31	NA	NA	10.12	4934.67
	01/06/00	4943.98	19.43	4924.55	9.30	NA	NA	10.13	4934.68
	03/07/96	4943.98	19.43	4924.55	9.26	NA	NA	10.17	4934.72
VP-1	05/30/03	Plugged and Abandoned							
	04/01/02	4943.75	13.95	4929.79	8.65	NA	NA	5.30	4935.10
	01/03/02	4943.75	13.95	4929.79	8.50	NA	NA	5.45	4935.25
	10/01/01	4943.75	13.96	4929.79	8.10	NA	NA	5.86	4935.65
	05/29/01	4943.75	13.96	4929.79	8.17	NA	NA	5.79	4935.58
	02/06/01	4943.75	13.96	4929.79	8.29	NA	NA	5.67	4935.46
	07/27/00	4943.75	13.96	4929.79	8.28	NA	NA	5.68	4935.47
	04/26/00	4943.75	13.96	4929.79	8.28	NA	NA	NA	4935.47
	01/26/00	4943.75	13.96	4929.79	NM	NA	NA	NA	NA
	01/06/00	4943.75	13.96	4929.79	8.64	NA	NA	5.32	4935.11
	01/10/96	4943.75	13.96	4929.79	8.57	NA	NA	5.39	4935.18
VP-2	07/17/03	4943.73	12.57	4931.16	8.81	NA	NA	3.76	4934.92
	01/10/03	4943.73	12.57	4931.16	8.83	NA	NA	3.74	4934.90
	09/24/02	4943.73	12.57	4931.16	8.73	NA	NA	3.84	4935.00
	07/03/02	4943.73	12.57	4931.16	8.63	NA	NA	3.94	4935.10
	04/01/02	4943.73	12.57	4931.16	8.94	NA	NA	3.63	4934.79
	01/03/02	4943.73	12.57	4931.16	8.71	NA	NA	3.86	4935.02
	10/01/01	4943.73	12.65	4931.08	8.40	NA	NA	4.25	4935.33
	05/29/01	4943.73	12.57	4931.16	8.44	8.33	0.11	4.13	4935.38
	02/06/01	4943.73	12.57	4931.16	8.55	NA	NA	4.02	4935.18
	07/27/00	4943.73	12.57	4931.16	8.44	NA	NA	4.13	4935.29
	04/26/00	4943.73	NA	NA	8.53	NA	NA	NA	4935.20
	01/26/00	4943.73	NA	NA	8.93	NA	NA	NA	4934.80
	03/24/94	4943.73	NA	NA	8.96	NA	NA	NA	4934.77

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GROUND WATER ELEVATION DATA
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MONITOR WELL NUMBER	DATE	CASING RIM ELEVATION (FEET)	DEPTH TO BOTTOM (FEET)	BOTTOM OF CASING ELEVATION (FEET)	DEPTH TO GROUND WATER (FEET)	DEPTH TO PRODUCT (FEET)	PRODUCT THICKNESS (FEET)	WATER COLUMN THICKNESS (FEET)	POTENTIOMETRIC SURFACE ELEVATION (FEET)
VP-3	05/30/03	Plugged and Abandoned							
	01/26/00	4943.73	13.16	4930.57	8.85	NA	NA	4.31	4934.88
	01/06/00	4943.73	13.16	4930.57	8.84	NA	NA	4.32	4934.89
	02/09/95	4943.73	13.16	4930.57	8.93	NA	NA	4.23	4934.80
VP-4	05/30/03	Plugged and Abandoned							
	01/26/00	4943.72	12.73	4930.99	8.54	NA	NA	4.19	4935.18
	01/06/00	4943.72	12.73	4930.99	8.53	NA	NA	4.20	4935.19
	03/07/96	4943.72	12.73	4930.99	8.46	NA	NA	4.27	4935.26
VP-5	07/17/03	4943.52	12.17	4931.35	8.55	NA	NA	3.62	4934.97
	01/10/03	4943.52	12.17	4931.35	8.53	NA	NA	3.64	4934.99
	09/24/02	4943.52	12.17	4931.35	8.44	NA	NA	3.73	4935.08
	07/03/02	4943.52	12.17	4931.35	8.27	NA	NA	3.90	4935.25
	04/01/02	4943.52	12.17	4931.35	8.56	NA	NA	3.61	4934.96
	01/03/02	4943.52	12.17	4931.35	8.55	NA	NA	3.62	4934.97
	10/02/01	4943.52	12.05	4931.47	8.10	NA	NA	3.95	4935.42
	05/29/01	4943.52	12.17	4931.35	8.01	NA	NA	4.16	4935.51
	07/27/00	4943.52	12.17	4931.35	8.18	NA	NA	3.99	4935.34
	04/26/00	4943.52	NA	NA	8.17	NA	NA	NM	4935.35
	01/26/00	4943.52	NA	NA	8.61	NA	NA	NM	4934.91
	03/07/96	4943.52	NA	NA	8.55	NA	NA	NM	4934.97

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WESTERN TECHNOLOGIES INC.

GROUND WATER ELEVATION DATA
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MONITOR WELL NUMBER	DATE	CASING RIM ELEVATION (FEET)	DEPTH TO BOTTOM (FEET)	BOTTOM OF CASING ELEVATION (FEET)	DEPTH TO GROUND WATER (FEET)	DEPTH TO PRODUCT (FEET)	PRODUCT THICKNESS (FEET)	WATER COLUMN THICKNESS (FEET)	POTENTIOMETRIC SURFACE ELEVATION (FEET)
VP-6	05/30/03	Plugged and Abandoned							
	01/10/03	4943.53	12.55	4930.98	9.10	NA	NA	3.45	4934.43
	09/24/02	4943.53	12.55	4930.98	9.06	NA	NA	3.49	4934.47
	07/03/02	4943.53	12.55	4930.98	8.99	NA	NA	3.56	4934.54
	04/01/02	4943.53	12.55	4930.98	9.20	NA	NA	3.35	4934.33
	01/03/02	4943.53	12.55	4930.98	9.05	NA	NA	3.50	4934.48
	10/02/01	4943.53	12.33	4931.20	8.75	NA	NA	3.58	4934.78
	05/29/01	4943.53	12.60	4930.93	8.73	NA	NA	3.87	4934.80
	02/06/01	4943.53	12.60	4930.93	8.81	NA	NA	3.79	4934.72
	07/27/00	4943.53	12.60	4930.93	8.81	NA	NA	3.79	4934.72
	04/26/00	4943.53	12.60	4930.93	8.80	NA	NA	3.80	4934.73
	01/26/00	4943.53	12.60	4930.93	9.23	NA	NA	3.37	4934.30
	01/06/00	4943.53	12.60	4930.93	9.23	NA	NA	3.37	4934.30
	03/07/96	4943.53	12.60	4930.93	9.20	NA	NA	3.40	4934.33
VP-7	05/30/03	Plugged and Abandoned							
	01/26/00	4943.52	12.82	4930.70	9.52	NA	NA	3.30	4934.00
	01/06/00	4943.52	12.82	4930.70	9.52	NA	NA	3.30	4934.00
	03/07/96	4943.52	12.82	4930.70	9.45	NA	NA	3.37	4934.07
PR-2	05/30/03	Plugged and Abandoned							
	01/06/00	4944.09	9.18	4934.91	Dry	NA	NA	Dry	Dry
PR-3	05/30/03	Plugged and Abandoned							
	01/06/00	4944.22	8.73	4935.49	Dry	NA	NA	Dry	Dry

NM = Not Measured NA = Not Applicable

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WESTERN TECHNOLOGIES INC.
SUMMARY OF WATER SAMPLE ANALYTICAL TEST RESULTS

TABLE 3

		*NAPHTHALENE (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENE (PPB)	**TOTAL BTEX (PPB)	MTBE (PPB)	EDB (PPB)	EDC (PPB)
NMWQCC Regulatory Limits		**30**	**10**	**750**	**750**	**620**		**100**	**0.1**	**10**
MONITOR WELL	DATE									
MW-1	06/06/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA
	03/07/95	N/A	<0.5	<1.0	<1.0	<1.0	<4.5	NA	NA	NA
MW-2	09/20/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA
	09/08/94	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA
MW-3	01/30/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	12/01/94	N/A	<0.5	<1.0	<1.0	<2.0	<4.0	NA	NA	NA
	06/02/94	N/A	11	<1.0	1.3	<2.0	12.3	NA	NA	NA
MW-4	**07/17/03**	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	0.010	<1.0
	01/10/03	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	09/24/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	07/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	04/01/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	01/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	10/01/01	<15.0	<1.0	<1.0	<1.0	<3.0	<6.0	<1.0	<1.0	<1.0
	05/29/01	<6.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	02/06/01	3.9	2.5	<1.0	<1.0	1.5	4.0	<1.0	<1.0	<1.0
	07/27/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	04/26/00	<2.0	2.9	<1.0	<1.0	<1.0	2.9	<1.0	<1.0	<1.0
	01/30/00	<2.0	5.4	<1.0	<1.0	2.6	8.0	<1.0	<1.0	<1.0
	06/06/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA
	03/07/95	N/A	40	1.0	54	<2.0	95.0	NA	NA	NA

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TABLE 3

		*NAPHTHALENE (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENE (PPB)	**TOTAL BTEX (PPB)	MTBE (PPB)	EDB (PPB)	EDC (PPB)
NMWQCC Regulatory Limits		**30**	**10**	**750**	**750**	**620**		**100**	**0.1**	**10**
MONITOR WELL	DATE									
MW-5	01/30/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	12/05/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA
	09/20/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA
MW-6	01/30/00	<2.0	<1.0	8.3	18	54	80.3	<1.0	<1.0	<1.0
	03/07/96	N/A	1.7	1.4	2.0	4.2	9.3	NA	NA	NA
	12/05/95	N/A	1.2	4.2	2.8	12.0	20.2	NA	NA	NA
	12/01/94	N/A	29	26	36	130	221	NA	NA	NA
MW-7	07/17/03	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	0.010	<1.0
	01/10/03	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	09/24/02	22.8	3.1	< 1.0	< 1.0	1.7	4.8	<1.0	<1.0	<1.0
	07/03/02	28.8	2.6	< 1.0	< 1.0	3.0	5.6	<1.0	<1.0	<1.0
	04/01/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	01/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	10/02/01	<15.0	<1.0	<1.0	<1.0	3.3	3.3	<1.0	<1.0	<1.0
	03/07/96	N/A	1.9	<1.0	<1.0	<2.0	1.9	NA	NA	NA
	12/05/95	N/A	6.0	1.2	2.2	<2.0	9.4	NA	NA	NA
	09/20/95	N/A	78	2.1	9.9	8.7	98.7	NA	NA	NA

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SUMMARY OF WATER SAMPLE ANALYTICAL TEST RESULTS

TABLE 3

		*NAPHTHALENE (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENE (PPB)	**TOTAL BTEX (PPB)	MTBE (PPB)	EDB (PPB)	EDC (PPB)
NMWQCC Regulatory Limits		**30**	**10**	**750**	**750**	**620**		**100**	**0.1**	**10**
MONITOR WELL	DATE									
MW-8	07/17/03	310	<5.0	<5.0	66	38	104	<5.0	0.010	<5.0
	01/10/03	284	<2.0	<2.0	57	38	95	<2.0	<2.0	<2.0
	09/24/02	238	< 5.0	< 5.0	58	29	87	<5.0	<5.0	<5.0
	07/03/02	202	< 5.0	< 5.0	86	40	126	<5.0	<5.0	<5.0
	04/01/02	273	<5.0	<5.0	100	43	143	<5.0	<5.0	<5.0
	01/04/02	313	3.0	3.2	35	50	91.2	<2.0	<2.0	<2.0
	10/02/01	120	<10	<10	90	51	141	<10	<10	<10
	05/29/01	261	4.2	2.6	110	57	173.8	<2.0	<2.0	<2.0
	02/06/01	140	<10	<10	130	43	173.0	<10	<10	<10
	07/27/00	140	6.0	5.2	150	61	222.2	<1.0	<1.0	<1.0
	04/26/00	136	3.2	2.2	<1.0	35.0	40.4	<1.0	<1.0	<1.0
	01/30/00	98	<10	<10	150.0	5.7	155.7	<10	<10	<10
	03/07/96	N/A	71	24	400	150	645.0	NA	NA	NA
	12/05/95	N/A	8.6	8.3	49	18	83.9	NA	NA	NA
	09/20/95	N/A	11	19	190	74	294.0	NA	NA	NA
MW-9	07/17/03	<10.0	98	9.9	2.4	10	120.3	7.1	0.010	<1.0
	01/10/03	<10.0	2.2	< 1.0	<1.0	<1.0	2.2	2.2	<1.0	<1.0
	09/24/02	13	9.2	< 1.0	25	20	54.2	1.7	<1.0	<1.0
	07/03/02	28.8	5.1	1.9	16	18	41.0	<1.0	<1.0	<1.0
	01/30/00	2.7	9.4	6.9	59	51	126.3	<1.0	<1.0	<1.0
	03/07/96	N/A	<0.5	<1.0	<1.0	3.7	3.7	NA	NA	NA
	12/05/95	N/A	<0.5	<1.0	<1.0	14.0	14.0	NA	NA	NA
	09/20/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA

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SUMMARY OF WATER SAMPLE ANALYTICAL TEST RESULTS

TABLE 3

		*NAPHTHALENE (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENE (PPB)	**TOTAL BTEX (PPB)	MTBE (PPB)	EDB (PPB)	EDC (PPB)
NMWQCC Regulatory Limits		**30**	**10**	**750**	**750**	**620**		**100**	**0.1**	**10**
MONITOR WELL	DATE									
VP-1	04/01/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	01/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	10/01/01	<15.0	<1.0	<1.0	<1.0	<3.0	<6.0	<1.0	<1.0	<1.0
	05/29/01	<6.0	1.9	<1.0	<1.0	2.0	3.9	<1.0	<1.0	<1.0
	02/06/01	<2.0	1.8	<1.0	<1.0	1.6	3.4	<1.0	<1.0	<1.0
	07/27/00	<2.0	3.5	<1.0	<1.0	1.4	4.9	<1.0	<1.0	<1.0
	04/26/00	<2.0	3.4	<1.0	<1.0	2.4	5.8	<1.0	<1.0	<1.0
	01/30/00	<2.0	1.3	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0
	03/07/96	N/A	<0.5	1.4	<1.0	<2.0	1.4	NA	NA	NA
	12/05/95	N/A	<0.5	1.2	1.0	<2.0	2.2	NA	NA	NA
	09/20/95	N/A	<0.5	<1.0	4.3	<2.0	4.3	NA	NA	NA
VP-2	**07/17/03**	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	0.010	<1.0
	01/10/03	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	09/24/02	3.4	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	07/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	04/01/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	01/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	10/01/01	<15.0	<1.0	<1.0	<1.0	<3.0	<6.0	<1.0	<1.0	<1.0
	05/29/01	**36.7**	<1.0	<1.0	1.2	4.9	6.1	<1.0	<1.0	<1.0
	02/06/01	13	<1.0	<1.0	<1.0	2.0	2.0	<1.0	<1.0	<1.0
	07/27/00	11	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	04/26/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	01/30/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	03/24/94	N/A	**32**	20	94	150	296	NA	NA	NA

Barelas Bridge
800 Bridge Blvd, SW
Albuquerque, New Mexico
PSTB Facility #4608001 / 29854

WESTERN TECHNOLOGIES INC.
SUMMARY OF WATER SAMPLE ANALYTICAL TEST RESULTS

TABLE 3

		*NAPHTHALENE (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENE (PPB)	**TOTAL BTEX (PPB)	MTBE (PPB)	EDB (PPB)	EDC (PPB)
NMWQCC Regulatory Limits		**30**	**10**	**750**	**750**	**620**		**100**	**0.1**	**10**
MONITOR WELL	DATE									
VP-3	01/30/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	06/16/93	N/A	110	7.3	180	74	371.3	NA	NA	NA
VP-4	01/30/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	03/07/96	N/A	1.7	<1.0	<1.0	<1.0	1.7	NA	NA	NA
	09/20/95	N/A	<0.5	<1.0	4.3	<2.0	4.3	NA	NA	NA
VP-5	**07/17/03**	**930**	< 5.0	< 5.0	110	54	164	<5.0	0.010	<5.0
	01/10/03	**510**	< 5.0	< 5.0	61	27	88	<5.0	<5.0	<5.0
	09/24/02	**510**	< 5.0	< 5.0	34	18	52	<5.0	<5.0	<5.0
	07/03/02	**350**	< 5.0	< 5.0	32	19	51	<5.0	<5.0	<5.0
	04/01/02	**640**	<1.0	<1.0	100	44	144	<1.0	<1.0	<1.0
	01/03/02	**340**	<5.0	<5.0	50	31	81	<5.0	<5.0	<5.0
	10/02/01	**320**	<5.0	<5.0	44	35	79	<5.0	<5.0	<5.0
	05/29/01	**330**	<1.0	1.2	21	17	39.2	<1.0	<1.0	<1.0
	07/27/00	**89**	<1.0	1.8	20	12	33.8	<1.0	<1.0	<1.0
	04/26/00	**142**	<1.0	1.4	14	7.1	22.5	<1.0	<1.0	<1.0
	01/30/00	**80**	<5.0	<5.0	20	10	30.0	<5.0	<5.0	<5.0
	03/07/96	N/A	9.5	<1.0	99	81	189.5	NA	NA	NA
	12/05/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA

Barelas Bridge
800 Bridge Blvd, SW
Albuquerque, New Mexico
PSTB Facility #4608001 / 29854

WESTERN TECHNOLOGIES INC.
SUMMARY OF WATER SAMPLE ANALYTICAL TEST RESULTS

TABLE 3

		*NAPHTHALENE (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENE (PPB)	**TOTAL BTEX (PPB)	MTBE (PPB)	EDB (PPB)	EDC (PPB)
NMWQCC Regulatory Limits		**30**	**10**	**750**	**750**	**620**		**100**	**0.1**	**10**
MONITOR WELL	DATE									
VP-6	01/10/03	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	09/24/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	07/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	04/01/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	01/03/02	<10.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	10/02/01	<15.0	<1.0	<1.0	<1.0	<3.0	<6.0	<1.0	<1.0	<1.0
	05/29/01	<6.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	02/06/01	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	07/27/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	04/26/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	01/30/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	03/07/95	N/A	0.8	<1.0	<1.0	2.1	2.9	NA	NA	NA
	09/07/94	N/A	0.8	1.3	<1.0	<2.0	2.1	NA	NA	NA
VP-7	01/30/00	<2.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0
	12/05/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA
	06/06/95	N/A	<0.5	<1.0	<1.0	<2.0	<4.5	NA	NA	NA

**Total BTEX = total benzene, toluene, ethylbenzene, and xylenes
NMWQCC = New Mexico Water Quality Control Commission
MTBE = Methyl-tert-butyl ether
EDB = 1,2,-Dibromethane
EDC = 1,2-Dichloroethane
PPB = parts per billion
N/A = Not Available
N/S = Not sampled due to presence of sheen.
<0.010* = EDB by EPA Method 504.1
* Naphthalene = napthalene only by EPA Method 8310 for 01/30/ 00 and 04/26/00
* Naphthalene = napthalene, 1-methylnaphthalene, 2-methylnaphthalene by EPA Method 8260 Extended beginning 07/27/00

Barelas Bridge
800 Bridge Blvd, SW
Albuquerque, New Mexico
USTB Facility #4608001 / 29854

WESTERN TECHNOLOGIES INC.
SUMMARY OF DISSOLVED METALS EPA METHOD 6010
ANALYTICAL TEST RESULTS
TABLE 6

MONITOR WELL	DATE	LEAD (Mg/L)	IRON (Mg/L)	MANGANESE (Mg/L)
NMWQCC Regulatory Limits		**0.050***	**1.0****	**0.2****
MW-4	05/29/01 02/06/01	<0.005 <0.005	0.17 1.19	1.97 1.76
MW-8	05/29/01 02/06/01	<0.005 <0.005	1.12 0.68	0.39 0.38
VP-1	05/29/01 02/06/01	<0.005 <0.005	1.72 2.07	1.67 1.07
VP-2	05/29/01 02/06/01	<0.005 <0.005	0.83 0.70	1.21 0.92
VP-5	05/29/01	<0.005	3.42	0.53
VP-6	05/29/01 02/06/01	<0.005 <0.005	0.67 0.52	0.62 0.45

NMWQCC = New Mexico Water Quality Control Commission
* = NMWQCC Regulations 20.6.2.3103.A. Human Health Standards
** = NMWQCC Regulations 20.6.2.3103.B. Other Standards for Domestic Water Supply

NEW MEXICO ENVIRONMENT DEPARTMENT
BARELAS BRIDGE SITE
ALBUQUERQUE, NEW MEXICO
APRIL 2014

Table 1
Summary of Groundwater Elevation Data
(All data reported in feet)

Well No.	Monitoring Date	Top of Casing Elevation	Depth to Bottom	Depth to Water	Groundwater Elevation
MW-4	10/4/2006	4943.23	7.5	8.02	4935.21
	5/8/2009			7.67	4935.56
	8/13/2011			NM	NM
	4/2/2013			7.91	4935.32
	1/30/2014			8.20	4935.03
	4/9/2014			8.16	4935.07
MW-7	10/4/2006	4942.94	21.3	8.20	4934.74
	5/8/2009			7.81	4935.13
	8/13/2011			7.91	4935.03
	4/2/2013			7.99	4934.95
MW-8	10/4/2006	4944.59	12.8	9.30	4935.29
	5/8/2009			8.96	4935.63
	8/13/2011			9.12	4935.47
	4/2/2013			9.23	4935.36
	1/30/2014			9.50	4935.09
	4/9/2014			9.47	4935.12
MW-9	10/4/2006	4943.98	19.2	8.83	4935.15
	5/8/2009			8.48	4935.50
	8/13/2011			8.63	4935.35
	4/2/2013			8.71	4935.27
	1/30/2014			8.98	4935.00
	4/9/2014			8.94	4935.04
VP-2	10/4/2006	4943.73	12.5	8.43	4935.30
	5/8/2009			8.07	4935.66
	8/13/2011			7.23	4936.50
	4/2/2013			8.33	4935.40
	1/30/2014			8.61	4935.12
	4/9/2014			8.57	4935.16
VP-5	10/4/2006	4943.52	11.9	8.10	4935.42
	5/8/2009			7.78	4935.74
	8/13/2011			7.97	4935.55
	4/2/2013			8.06	4935.46
	1/30/2014			8.30	4935.22
	4/9/2014			8.25	4935.27

2006-2009 Data provided by the NMED
NM = Not measured (tree roots obstructing inner well)

Table 2
Summary of Groundwater Chemistry Data
(Concentrations in micrograms per liter [µg/l or ppb])

Well No.	Sample Date	Benzene	Toulene	Ethylbenzene	Total Xylenes	MTBE	NAPH
MW-4	10/4/2006	<1.0	<1.0	<1.0	<3.0	<1.5	<10
	5/8/2009	<1.0	<1.0	<1.0	<1.5	<1.0	<10
	8/13/2011	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	4/2/2013	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	1/30/2014	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	4/9/2014	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
MW-7	10/4/2006	<1.0	<1.0	<1.0	<3.0	<1.5	<10
	5/8/2009	<1.0	<1.0	<1.0	<1.5	<1.0	<10
	8/13/2011	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
MW-8	10/4/2006	<2.0	<2.0	34	18	<3.0	210
	5/8/2009	<1.0	<1.0	24	8.0	<1.0	92
	8/13/2011	<10	<10	32	<15	<10	72
	4/2/2013	<5.0	<5.0	31	10	<5.0	149
	1/30/2014	1.3	1.4	33	8.2	<1.0	134
	4/9/2014	<1.0	1.2	32	7.3	<1.0	113
MW-9	10/4/2006	62	44	11	42	<1.5	6.9
	5/8/2009	12	7.1	45	68	<1.0	77
	8/13/2011	750	150	270	880	12	93
	4/2/2013	320	34	<10	150	<10	<40
	1/30/2014	190	59	200	340	<2.0	67
	4/9/2014	100	49	72	110	<1.0	32.4
VP-2	10/4/2006	<1.0	<1.0	<1.0	<3.0	<1.5	<10
	5/8/2009	<1.0	<1.0	1.3	1.6	<1.0	37.3
	8/13/2011	<1.0	<1.0	2.1	2.4	<1.0	78
	4/2/2013	<2.0	<2.0	<2.0	<3.0	<2.0	34.7
	1/30/2014	<1.0	<1.0	<1.0	<1.5	<1.0	2.2
	4/9/2014	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0

Table 2
Summary of Groundwater Chemistry Data
(Concentrations in micrograms per liter [µg/l or ppb])

Well No.	Sample Date	Benzene	Toulene	Ethylbenzene	Total Xylenes	MTBE	NAPH
VP-5	10/4/2006	<10	<10	21	<30	<15	430
	5/8/2009	<5.0	<5.0	7.1	<7.5	<5.0	386
	8/13/2011	1.4	1.8	12	2.4	<1.0	469
	4/2/2013	<2.0	<2.0	7.7	<3.0	<2.0	270
	1/30/2014	<1.0	1.0	3.0	<1.5	<1.0	187
	4/9/2014	<1.0	1.2	4.5	<1.5	<1.0	217
NMWQCC/NMEIB Standard		10	750	750	620	100	30

2006-2009 Data provided by the NMED

NMWQCC: New Mexico Water Quality Control Commission
NMEIB: New Mexico Environmental Improvement Board
MTBE: Methyl t-butyl ether
NAPH: Total Naphthalenes
Analysis by EPA Test Method 8260.
Shaded cells represent concentrations exceeding applicable standard for most recent event.

SUMMARY OF WELL COMPLETION INFORMATION
BARELAS BRIDGE GWPA SITE
800 BRIDGE BLVD., S.W.
ALBUQUERQUE, NEW MEXICO

WELL ID	DATE INSTALLED	MP OR TOC ELEV. (FTAMSL)	TOTAL DEPTH OF WELL (FT)	WELL DIAMETER/ CONSTRUCTION	SCREENED INTERVAL/ SLOT SIZE	SCREEN LENGTH (FT)	STATUS/ COMMENTS
MW-1	02/07/90	4942.94	17	2" PVC	2'-17'/0.020"	15	
MW-2	02/07/90	4942.36	23	2" PVC	3'-18'/0.020"	15	
MW-3	02/07/90	4941.97	22.5	2" PVC	2.5'-17.5'/0.020"	15	
MW-4	02/08/90	4943.86	23.5	2" PVC	3.5'-18.5'/0.020"	15	
MW-5	10/16/90	4942.09	21.5	2" PVC	7'-22'/0.010"	15	
MW-6	10/16/90	4943.18	22	2" PVC	7'-22'/0.010"	15	
MW-7	10/18/90	4942.94	22	2" PVC	7'-22'/0.010"	15	
MW-8	10/18/90	4944.57	13	2" STEEL	8'-13'/0.010"	5	
MW-9	08/20/92	--	20.0	2" PVC	5'-20'/0.020"	15	
VP-1	08/19/92	--	14.5	4" PVC	9.5'-14.5'/0.020" 4.5'-9.5'/0.040"	10	Vapor extraction well
AS-1	08/19/92	--	22.2	2" PVC	20'-22'/0.010"	2	Air sparge well
PR-2	08/18/92	--	9	2" PVC	3'-5'/0.020" 7'-9'/0.020"	2'/2'	Nested vadose monitor probe
PR-3	08/18/92	--	9.3	2" PVC	3'-5'/0.020" 7'-9'/0.020"	2'/2'	Nested vadose monitor probe

NMED/BB
bb.rap

GROUNDWATER TECHNOLOGY

APPENDIX D

Laboratory Analytical Report – Groundwater

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 11, 2014

Eileen Marcillo

Intera, Inc.
6000 Uptown Boulevard, NE Suite 220
Albuquerque, NM 87110
TEL: (603) 969-4070
FAX (505) 246-2600

RE: Barelas Bridge OrderNo.: 1412278

Dear Eileen Marcillo:

Hall Environmental Analysis Laboratory received 7 sample(s) on 12/4/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** VP-5
Project: Barelas Bridge **Collection Date:** 12/2/2014 11:03:00 AM
Lab ID: 1412278-001 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	12/8/2014 4:52:29 PM	16719
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	1.0	0.10	*	mg/L	5	12/8/2014 2:39:11 PM	R22981
Lead	ND	0.0050		mg/L	1	12/8/2014 1:28:26 PM	R22981
Manganese	0.12	0.0020	*	mg/L	1	12/8/2014 1:28:26 PM	R22981
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
Benzene	ND	5.0		µg/L	10	12/8/2014 5:49:35 PM	R22999
Toluene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Ethylbenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2,4-Trimethylbenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,3,5-Trimethylbenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Naphthalene	ND	20		µg/L	10	12/8/2014 5:49:35 PM	R22999
1-Methylnaphthalene	99	40		µg/L	10	12/8/2014 5:49:35 PM	R22999
2-Methylnaphthalene	180	40		µg/L	10	12/8/2014 5:49:35 PM	R22999
Acetone	ND	100		µg/L	10	12/8/2014 5:49:35 PM	R22999
Bromobenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Bromodichloromethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Bromoform	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Bromomethane	ND	30		µg/L	10	12/8/2014 5:49:35 PM	R22999
2-Butanone	ND	100		µg/L	10	12/8/2014 5:49:35 PM	R22999
Carbon disulfide	ND	100		µg/L	10	12/8/2014 5:49:35 PM	R22999
Carbon Tetrachloride	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Chlorobenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Chloroethane	ND	20		µg/L	10	12/8/2014 5:49:35 PM	R22999
Chloroform	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Chloromethane	ND	30		µg/L	10	12/8/2014 5:49:35 PM	R22999
2-Chlorotoluene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
4-Chlorotoluene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
cis-1,2-DCE	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
cis-1,3-Dichloropropene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	12/8/2014 5:49:35 PM	R22999
Dibromochloromethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Dibromomethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2-Dichlorobenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,3-Dichlorobenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** VP-5
Project: Barelas Bridge **Collection Date:** 12/2/2014 11:03:00 AM
Lab ID: 1412278-001 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
1,4-Dichlorobenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Dichlorodifluoromethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,1-Dichloroethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,1-Dichloroethene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2-Dichloropropane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,3-Dichloropropane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
2,2-Dichloropropane	ND	20		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,1-Dichloropropene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Hexachlorobutadiene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
2-Hexanone	ND	100		µg/L	10	12/8/2014 5:49:35 PM	R22999
Isopropylbenzene	31	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
4-Isopropyltoluene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
4-Methyl-2-pentanone	ND	100		µg/L	10	12/8/2014 5:49:35 PM	R22999
Methylene Chloride	ND	30		µg/L	10	12/8/2014 5:49:35 PM	R22999
n-Butylbenzene	ND	30		µg/L	10	12/8/2014 5:49:35 PM	R22999
n-Propylbenzene	92	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
sec-Butylbenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Styrene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
tert-Butylbenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	12/8/2014 5:49:35 PM	R22999
Tetrachloroethene (PCE)	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
trans-1,2-DCE	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
trans-1,3-Dichloropropene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2,3-Trichlorobenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2,4-Trichlorobenzene	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,1,1-Trichloroethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,1,2-Trichloroethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Trichloroethene (TCE)	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Trichlorofluoromethane	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
1,2,3-Trichloropropane	ND	20		µg/L	10	12/8/2014 5:49:35 PM	R22999
Vinyl chloride	ND	10		µg/L	10	12/8/2014 5:49:35 PM	R22999
Xylenes, Total	ND	15		µg/L	10	12/8/2014 5:49:35 PM	R22999
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	10	12/8/2014 5:49:35 PM	R22999
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	10	12/8/2014 5:49:35 PM	R22999
Surr: Dibromofluoromethane	103	70-130		%REC	10	12/8/2014 5:49:35 PM	R22999
Surr: Toluene-d8	93.1	70-130		%REC	10	12/8/2014 5:49:35 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-8
Project: Barelas Bridge **Collection Date:** 12/2/2014 1:20:00 PM
Lab ID: 1412278-002 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	12/8/2014 5:07:32 PM	16719
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	0.076	0.020		mg/L	1	12/8/2014 1:30:20 PM	R22981
Lead	ND	0.0050		mg/L	1	12/8/2014 1:30:20 PM	R22981
Manganese	0.34	0.0020	*	mg/L	1	12/8/2014 1:30:20 PM	R22981
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
Benzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Toluene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Ethylbenzene	17	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Naphthalene	33	10		µg/L	5	12/8/2014 7:18:52 PM	R22999
1-Methylnaphthalene	ND	20		µg/L	5	12/8/2014 7:18:52 PM	R22999
2-Methylnaphthalene	29	20		µg/L	5	12/8/2014 7:18:52 PM	R22999
Acetone	ND	50		µg/L	5	12/8/2014 7:18:52 PM	R22999
Bromobenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Bromodichloromethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Bromoform	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Bromomethane	ND	15		µg/L	5	12/8/2014 7:18:52 PM	R22999
2-Butanone	ND	50		µg/L	5	12/8/2014 7:18:52 PM	R22999
Carbon disulfide	ND	50		µg/L	5	12/8/2014 7:18:52 PM	R22999
Carbon Tetrachloride	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Chlorobenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Chloroethane	ND	10		µg/L	5	12/8/2014 7:18:52 PM	R22999
Chloroform	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Chloromethane	ND	15		µg/L	5	12/8/2014 7:18:52 PM	R22999
2-Chlorotoluene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
4-Chlorotoluene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
cis-1,2-DCE	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	12/8/2014 7:18:52 PM	R22999
Dibromochloromethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Dibromomethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2-Dichlorobenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,3-Dichlorobenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-8
Project: Barelas Bridge **Collection Date:** 12/2/2014 1:20:00 PM
Lab ID: 1412278-002 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
1,4-Dichlorobenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Dichlorodifluoromethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,1-Dichloroethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,1-Dichloroethene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2-Dichloropropane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,3-Dichloropropane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
2,2-Dichloropropane	ND	10		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,1-Dichloropropene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Hexachlorobutadiene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
2-Hexanone	ND	50		µg/L	5	12/8/2014 7:18:52 PM	R22999
Isopropylbenzene	10	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
4-Isopropyltoluene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
4-Methyl-2-pentanone	ND	50		µg/L	5	12/8/2014 7:18:52 PM	R22999
Methylene Chloride	ND	15		µg/L	5	12/8/2014 7:18:52 PM	R22999
n-Butylbenzene	ND	15		µg/L	5	12/8/2014 7:18:52 PM	R22999
n-Propylbenzene	19	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
sec-Butylbenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Styrene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
tert-Butylbenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	12/8/2014 7:18:52 PM	R22999
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
trans-1,2-DCE	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,1,1-Trichloroethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,1,2-Trichloroethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Trichloroethene (TCE)	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Trichlorofluoromethane	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
1,2,3-Trichloropropane	ND	10		µg/L	5	12/8/2014 7:18:52 PM	R22999
Vinyl chloride	ND	5.0		µg/L	5	12/8/2014 7:18:52 PM	R22999
Xylenes, Total	ND	7.5		µg/L	5	12/8/2014 7:18:52 PM	R22999
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%REC	5	12/8/2014 7:18:52 PM	R22999
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	5	12/8/2014 7:18:52 PM	R22999
Surr: Dibromofluoromethane	90.8	70-130		%REC	5	12/8/2014 7:18:52 PM	R22999
Surr: Toluene-d8	95.7	70-130		%REC	5	12/8/2014 7:18:52 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-9
Project: Barelas Bridge **Collection Date:** 12/2/2014 2:25:00 PM
Lab ID: 1412278-003 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	12/8/2014 5:22:35 PM	16719
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	0.31	0.020	*	mg/L	1	12/8/2014 1:32:12 PM	R22981
Lead	ND	0.0050		mg/L	1	12/8/2014 1:32:12 PM	R22981
Manganese	0.81	0.0020	*	mg/L	1	12/8/2014 1:32:12 PM	R22981
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
Benzene	6.4	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Toluene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Ethylbenzene	14	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2,4-Trimethylbenzene	1.5	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Naphthalene	2.3	2.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
2-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Acetone	ND	10		µg/L	1	12/8/2014 7:48:37 PM	R22999
Bromobenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Bromodichloromethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Bromoform	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Bromomethane	ND	3.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
2-Butanone	ND	10		µg/L	1	12/8/2014 7:48:37 PM	R22999
Carbon disulfide	ND	10		µg/L	1	12/8/2014 7:48:37 PM	R22999
Carbon Tetrachloride	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Chlorobenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Chloroethane	ND	2.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Chloroform	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Chloromethane	ND	3.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
2-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
4-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
cis-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Dibromochloromethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Dibromomethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-9
Project: Barelas Bridge **Collection Date:** 12/2/2014 2:25:00 PM
Lab ID: 1412278-003 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,1-Dichloroethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,1-Dichloroethene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,3-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
2,2-Dichloropropane	ND	2.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,1-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Hexachlorobutadiene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
2-Hexanone	ND	10		µg/L	1	12/8/2014 7:48:37 PM	R22999
Isopropylbenzene	2.3	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
4-Isopropyltoluene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
4-Methyl-2-pentanone	ND	10		µg/L	1	12/8/2014 7:48:37 PM	R22999
Methylene Chloride	ND	3.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
n-Butylbenzene	ND	3.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
n-Propylbenzene	2.4	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
sec-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Styrene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
tert-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
trans-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Trichlorofluoromethane	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Vinyl chloride	ND	1.0		µg/L	1	12/8/2014 7:48:37 PM	R22999
Xylenes, Total	5.5	1.5		µg/L	1	12/8/2014 7:48:37 PM	R22999
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%REC	1	12/8/2014 7:48:37 PM	R22999
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	12/8/2014 7:48:37 PM	R22999
Surr: Dibromofluoromethane	90.7	70-130		%REC	1	12/8/2014 7:48:37 PM	R22999
Surr: Toluene-d8	93.3	70-130		%REC	1	12/8/2014 7:48:37 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-4
Project: Barelas Bridge **Collection Date:** 12/2/2014 3:17:00 PM
Lab ID: 1412278-004 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	12/8/2014 5:37:42 PM	16719
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	0.60	0.020	*	mg/L	1	12/8/2014 1:34:01 PM	R22981
Lead	ND	0.0050		mg/L	1	12/8/2014 1:34:01 PM	R22981
Manganese	0.78	0.0020	*	mg/L	1	12/8/2014 1:34:01 PM	R22981
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
Benzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Toluene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Ethylbenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Naphthalene	2.1	2.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
2-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Acetone	ND	10		µg/L	1	12/8/2014 8:18:23 PM	R22999
Bromobenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Bromodichloromethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Bromoform	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Bromomethane	ND	3.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
2-Butanone	ND	10		µg/L	1	12/8/2014 8:18:23 PM	R22999
Carbon disulfide	ND	10		µg/L	1	12/8/2014 8:18:23 PM	R22999
Carbon Tetrachloride	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Chlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Chloroethane	ND	2.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Chloroform	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Chloromethane	ND	3.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
2-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
4-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
cis-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Dibromochloromethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Dibromomethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-4
Project: Barelas Bridge **Collection Date:** 12/2/2014 3:17:00 PM
Lab ID: 1412278-004 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,1-Dichloroethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,1-Dichloroethene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,3-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
2,2-Dichloropropane	ND	2.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,1-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Hexachlorobutadiene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
2-Hexanone	ND	10		µg/L	1	12/8/2014 8:18:23 PM	R22999
Isopropylbenzene	2.0	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
4-Isopropyltoluene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
4-Methyl-2-pentanone	ND	10		µg/L	1	12/8/2014 8:18:23 PM	R22999
Methylene Chloride	ND	3.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
n-Butylbenzene	ND	3.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
n-Propylbenzene	1.9	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
sec-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Styrene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
tert-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
trans-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Trichlorofluoromethane	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Vinyl chloride	ND	1.0		µg/L	1	12/8/2014 8:18:23 PM	R22999
Xylenes, Total	ND	1.5		µg/L	1	12/8/2014 8:18:23 PM	R22999
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%REC	1	12/8/2014 8:18:23 PM	R22999
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	1	12/8/2014 8:18:23 PM	R22999
Surr: Dibromofluoromethane	95.7	70-130		%REC	1	12/8/2014 8:18:23 PM	R22999
Surr: Toluene-d8	101	70-130		%REC	1	12/8/2014 8:18:23 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** VP-2
Project: Barelas Bridge **Collection Date:** 12/2/2014 4:45:00 PM
Lab ID: 1412278-005 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	12/8/2014 6:37:27 PM	16719
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	0.11	0.020		mg/L	1	12/8/2014 1:35:53 PM	R22981
Lead	ND	0.0050		mg/L	1	12/8/2014 1:35:53 PM	R22981
Manganese	0.59	0.0020	*	mg/L	1	12/8/2014 1:35:53 PM	R22981
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
Benzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Toluene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Ethylbenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Naphthalene	3.6	2.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
2-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Acetone	ND	10		µg/L	1	12/8/2014 8:48:08 PM	R22999
Bromobenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Bromodichloromethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Bromoform	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Bromomethane	ND	3.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
2-Butanone	ND	10		µg/L	1	12/8/2014 8:48:08 PM	R22999
Carbon disulfide	ND	10		µg/L	1	12/8/2014 8:48:08 PM	R22999
Carbon Tetrachloride	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Chlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Chloroethane	ND	2.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Chloroform	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Chloromethane	ND	3.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
2-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
4-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
cis-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Dibromochloromethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Dibromomethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** VP-2
Project: Barelas Bridge **Collection Date:** 12/2/2014 4:45:00 PM
Lab ID: 1412278-005 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,1-Dichloroethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,1-Dichloroethene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,3-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
2,2-Dichloropropane	ND	2.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,1-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Hexachlorobutadiene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
2-Hexanone	ND	10		µg/L	1	12/8/2014 8:48:08 PM	R22999
Isopropylbenzene	1.9	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
4-Isopropyltoluene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
4-Methyl-2-pentanone	ND	10		µg/L	1	12/8/2014 8:48:08 PM	R22999
Methylene Chloride	ND	3.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
n-Butylbenzene	ND	3.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
n-Propylbenzene	2.1	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
sec-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Styrene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
tert-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
trans-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Trichlorofluoromethane	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Vinyl chloride	ND	1.0		µg/L	1	12/8/2014 8:48:08 PM	R22999
Xylenes, Total	ND	1.5		µg/L	1	12/8/2014 8:48:08 PM	R22999
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%REC	1	12/8/2014 8:48:08 PM	R22999
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	12/8/2014 8:48:08 PM	R22999
Surr: Dibromofluoromethane	94.5	70-130		%REC	1	12/8/2014 8:48:08 PM	R22999
Surr: Toluene-d8	94.3	70-130		%REC	1	12/8/2014 8:48:08 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-7
Project: Barelas Bridge **Collection Date:** 12/2/2014 5:34:00 PM
Lab ID: 1412278-006 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	12/8/2014 6:52:20 PM	16719
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**	
Iron	0.33	0.020	*	mg/L	1	12/8/2014 1:43:04 PM	R22981
Lead	ND	0.0050		mg/L	1	12/8/2014 1:43:04 PM	R22981
Manganese	0.69	0.0020	*	mg/L	1	12/8/2014 1:43:04 PM	R22981
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
Benzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Toluene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Ethylbenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Naphthalene	ND	2.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
2-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Acetone	ND	10		µg/L	1	12/8/2014 9:17:52 PM	R22999
Bromobenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Bromodichloromethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Bromoform	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Bromomethane	ND	3.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
2-Butanone	ND	10		µg/L	1	12/8/2014 9:17:52 PM	R22999
Carbon disulfide	ND	10		µg/L	1	12/8/2014 9:17:52 PM	R22999
Carbon Tetrachloride	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Chlorobenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Chloroethane	ND	2.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Chloroform	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Chloromethane	ND	3.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
2-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
4-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
cis-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Dibromochloromethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Dibromomethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** MW-7
Project: Barelas Bridge **Collection Date:** 12/2/2014 5:34:00 PM
Lab ID: 1412278-006 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,1-Dichloroethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,1-Dichloroethene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,3-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
2,2-Dichloropropane	ND	2.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,1-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Hexachlorobutadiene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
2-Hexanone	ND	10		µg/L	1	12/8/2014 9:17:52 PM	R22999
Isopropylbenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
4-Isopropyltoluene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
4-Methyl-2-pentanone	ND	10		µg/L	1	12/8/2014 9:17:52 PM	R22999
Methylene Chloride	ND	3.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
n-Butylbenzene	ND	3.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
n-Propylbenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
sec-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Styrene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
tert-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
trans-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Trichlorofluoromethane	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Vinyl chloride	ND	1.0		µg/L	1	12/8/2014 9:17:52 PM	R22999
Xylenes, Total	ND	1.5		µg/L	1	12/8/2014 9:17:52 PM	R22999
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	12/8/2014 9:17:52 PM	R22999
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	1	12/8/2014 9:17:52 PM	R22999
Surr: Dibromofluoromethane	102	70-130		%REC	1	12/8/2014 9:17:52 PM	R22999
Surr: Toluene-d8	94.4	70-130		%REC	1	12/8/2014 9:17:52 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** Trip Blank
Project: Barelas Bridge **Collection Date:**
Lab ID: 1412278-007 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	12/8/2014 7:07:18 PM	16719
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
Benzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Toluene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Ethylbenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Naphthalene	ND	2.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
2-Methylnaphthalene	ND	4.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Acetone	ND	10		µg/L	1	12/8/2014 2:21:23 PM	R22999
Bromobenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Bromodichloromethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Bromoform	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Bromomethane	ND	3.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
2-Butanone	ND	10		µg/L	1	12/8/2014 2:21:23 PM	R22999
Carbon disulfide	ND	10		µg/L	1	12/8/2014 2:21:23 PM	R22999
Carbon Tetrachloride	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Chlorobenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Chloroethane	ND	2.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Chloroform	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Chloromethane	ND	3.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
2-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
4-Chlorotoluene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
cis-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Dibromochloromethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Dibromomethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,1-Dichloroethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,1-Dichloroethene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Intera, Inc. **Client Sample ID:** Trip Blank
Project: Barelas Bridge **Collection Date:**
Lab ID: 1412278-007 **Matrix:** AQUEOUS **Received Date:** 12/4/2014 1:07:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **KJH**	
1,3-Dichloropropane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
2,2-Dichloropropane	ND	2.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,1-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Hexachlorobutadiene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
2-Hexanone	ND	10		µg/L	1	12/8/2014 2:21:23 PM	R22999
Isopropylbenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
4-Isopropyltoluene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
4-Methyl-2-pentanone	ND	10		µg/L	1	12/8/2014 2:21:23 PM	R22999
Methylene Chloride	ND	3.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
n-Butylbenzene	ND	3.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
n-Propylbenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
sec-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Styrene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
tert-Butylbenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
trans-1,2-DCE	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Trichlorofluoromethane	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Vinyl chloride	ND	1.0		µg/L	1	12/8/2014 2:21:23 PM	R22999
Xylenes, Total	ND	1.5		µg/L	1	12/8/2014 2:21:23 PM	R22999
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	12/8/2014 2:21:23 PM	R22999
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	1	12/8/2014 2:21:23 PM	R22999
Surr: Dibromofluoromethane	90.1	70-130		%REC	1	12/8/2014 2:21:23 PM	R22999
Surr: Toluene-d8	91.2	70-130		%REC	1	12/8/2014 2:21:23 PM	R22999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**R22981**	RunNo:	**22981**					
Prep Date:		Analysis Date:	**12/8/2014**	SeqNo:	**678863**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								

Sample ID	**LCS**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**R22981**	RunNo:	**22981**					
Prep Date:		Analysis Date:	**12/8/2014**	SeqNo:	**678864**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.46	0.020	0.5000	0	92.1	85	115			
Lead	0.46	0.0050	0.5000	0	92.3	85	115			
Manganese	0.45	0.0020	0.5000	0	89.1	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID	**MB-16719**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**16719**	RunNo:	**22983**					
Prep Date:	**12/8/2014**	Analysis Date:	**12/8/2014**	SeqNo:	**679475**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-16719**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**16719**	RunNo:	**22983**					
Prep Date:	**12/8/2014**	Analysis Date:	**12/8/2014**	SeqNo:	**679484**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.091	0.010	0.1000	0	91.0	70	130			

Sample ID	**1412278-004BMS**	SampType:	**MS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**MW-4**	Batch ID:	**16719**	RunNo:	**22983**					
Prep Date:	**12/8/2014**	Analysis Date:	**12/8/2014**	SeqNo:	**679485**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.085	0.010	0.1000	0	85.0	47.6	127			

Sample ID	**1412278-004BMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**MW-4**	Batch ID:	**16719**	RunNo:	**22983**					
Prep Date:	**12/8/2014**	Analysis Date:	**12/8/2014**	SeqNo:	**679486**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.095	0.010	0.1000	0	95.0	47.6	127	11.1	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID **5mL-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679391** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID **5mL-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679391** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.1		10.00		90.6	70	130			
Surr: Toluene-d8	9.1		10.00		91.1	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679393** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	23	1.0	20.00	0	115	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679393** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	25	1.0	20.00	0	124	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	95.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.3	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.5	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID **1412278-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **VP-5**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679402** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	220	10	200.0	0	108	70	130			
Toluene	210	10	200.0	0	107	70	130			
Chlorobenzene	190	10	200.0	0	96.8	70	130			
1,1-Dichloroethene	230	10	200.0	0	116	70	130			
Trichloroethene (TCE)	180	10	200.0	0	92.5	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.2	70	130			
Surr: 4-Bromofluorobenzene	96		100.0		96.0	70	130			
Surr: Dibromofluoromethane	94		100.0		93.8	70	130			
Surr: Toluene-d8	92		100.0		91.9	70	130			

Sample ID **1412278-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **VP-5**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679403** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	0	107	70	130	0.802	20	
Toluene	220	10	200.0	0	110	70	130	3.20	20	
Chlorobenzene	200	10	200.0	0	99.0	70	130	2.25	20	
1,1-Dichloroethene	230	10	200.0	0	117	70	130	0.429	20	
Trichloroethene (TCE)	210	10	200.0	0	103	70	130	10.9	20	
Surr: 1,2-Dichloroethane-d4	100		100.0		104	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		102	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		105	70	130	0	0	
Surr: Toluene-d8	99		100.0		98.9	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679421** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679421** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.2	70	130			
Surr: Toluene-d8	9.9		10.00		99.1	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679423** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	21	1.0	20.00	0	103	80	120			
Chlorobenzene	19	1.0	20.00	0	97.5	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412278**

18-Dec-14

Client: Intera, Inc.

Project: Barelas Bridge

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R22999**	RunNo: **22999**
Prep Date:	Analysis Date: **12/8/2014**	SeqNo: **679423** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	120	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	95.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.4	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.1	70	130			
Surr: Toluene-d8	9.2		10.00		92.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: INT | Work Order Number: 1412278 | RcptNo: 1

Received by/date: CS 12/04/14

Logged By: **Celina Sessa** 12/4/2014 1:07:00 PM Celina Sessa

Completed By: **Celina Sessa** 12/5/2014 9:00:07 AM Celina Sessa

Reviewed By: IO 12/05/2014

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? NO

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Not Present			

Chain-of-Custody Record

Client: Intera

Mailing Address: 6000 Uptown Blvd Suite 220 ABQ NM 87110

Phone #: 505-246-1600

email or Fax#: ewoolsey@intera.com

QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)

Accreditation ☐ NELAP ☐ Other ______

☒ EDD (Type) Excel

Turn-Around Time: ☒ Standard ☐ Rush ______

Project Name: Barelas Bridge

Project #: NMENV.M002.PTSB ~~Eileen Marcillo~~ EEW #3778.1

Project Manager: Eileen Marcillo (emarcillo@intera.com)

Sampler: Emily Woolsey (EEW)

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.2°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1412278	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	200.7 (Dissolved Fe, Mn, Pb)				Air Bubbles (Y or N)
/2/14	1103	AQ	VP-5	3-40mL VOA	$HgCl_2$	-001										X						
/2/14	1103	AQ	VP-5	1-40mL VOA	$Na_2S_2O_3$	↓					X											
/2/14	1103	AQ	VP-5	1-125mL	HNO_3	↓ ~~HNO_3~~ EEW												X				
/2/14	1320	AQ	MW-8	3-40mL VOA	$HgCl_2$	-002										X						
2/2/14	1320	AQ	MW-8	1-40mL VOA	$Na_2S_2O_3$	↓					X											
/2/14	1320	AQ	MW-8	1-125mL	HNO_3	↓												X				
/2/14	1425	AQ	MW-9	3-40mL VOA	$HgCl_2$	-003										X						
/2/14	1425	AQ	MW-9	1-40mL VOA	$Na_2S_2O_3$	↓					X											
/2/14	1425	AQ	MW-9	1-125mL	HNO_3	↓												X				
/2/14	1517	AQ	MW-4	1-125mL	HNO_3	-004												X				
2/2/14	1517	AQ	MW-4	3-40mL VOA	$HgCl_2$	↓										X						
2/2/14	1517	AQ	MW-4	3-40mL VOA	$Na_2S_2O_3$	↓					X											

Date	Time	Relinquished by	Received by	Date	Time
2/4/14	1307	[signature]	[signature]	12/04/14	1307

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: INTERA

Mailing Address: 6000 Uptown Blvd Suite 220 ABQ, NM 87110

Phone #: 505-246-1600

email or Fax#: ewoolsey@intera.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☒ EDD (Type) Excel

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: Barelas Bridge

Project #: NMENV.M002.PTSB #3778-1

Project Manager: Eileen Marcillo (emarcillo@intera.com)

Sampler: Emily Woolsey (EEnv)

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.2°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1412278	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	200.7 (Dissolved Fe,Mn,Pb)				Air Bubbles (Y or N)
12/2/14																						
12/2/14	1645	AQ	VP-2	3-40mL VOA	$HgCl_2$	-005										X						
12/2/14	1645	AQ	VP-2	1-40mL VOA	$Na_2S_2O_3$	↓					X											
12/2/14	1645	AQ	VP-2	1-125mL	HNO_3	↓												X				
12/2/14	1734	AQ	MW-7	3-40mL VOA	$HgCl_2$	-006										X						
12/2/14	1734	AQ	MW-7	1-40mL VOA	$Na_2S_2O_3$	↓					X											
12/2/14	1734	AQ	MW-7	1-125mL	HNO_3	↓												X				
12/2/14		AQ	Trip Blank	2-40mL VOA	$HgCl_2$	-007										X						
12/2/14		AQ	Trip Blank	1-40mL VOA	$Na_2S_2O_3$	↓					X											

Date:	Time:	Relinquished by:	Received by:	Date	Time
12/4/14	1307		Celina Sanchez	12/04/14	1307
Date:	Time:	Relinquished by:	Received by:	Date	Time
12/4/14					

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

APPENDIX E

Photograph Log

Rootball recovered on oil/water interface probe during fluid level gauging activites at MW-4.