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Groundwater Monitoring Report for the March 2015 Event Miracle Mile WQARF Registry Site Tucson, Arizona

Prepared for:

Arizona Department of Environmental Quality
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January 7, 2016

Project No. 14-2015-2031

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January 7, 2016
Project No. 14-2015-2031

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Tucson, Arizona 85701

Attn: Ms. Gretchen Wagenseller

Re: Groundwater Monitoring Report for the March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Registry Site
Tucson, Arizona

This report, including all related activities, was prepared and/or conducted by Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), under the direct supervision of James N. Clarke, Associate Geologist, for the exclusive use of the client as it pertains to the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) Registry Site in Tucson, Arizona. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other hydrogeologists and engineers practicing in this field. No other warranty, expressed or implied is made as to the professional advice in this report. *Any use of or reliance on these reports by a third party shall be at such a party's sole risk.*

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If you have any questions or comments regarding this report, please contact Mr. Chris Courtney at 602-733-6000.

Respectfully submitted,

Amec Foster Wheeler
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ACRONYMS AND ABBREVIATIONS

%	percent
1,1,-DCE	1,1-dichloroethene (*aka 1,1-dichloroethylene)*
1,2-DCE	1,2-dichloroethene (*aka* 1,2- *dichloroethylene*)
ADEQ	Arizona Department of Environmental Quality
Amec Foster Wheeler	Amec Foster Wheeler Environment and Infrastructure, Inc.
AWQS(s)	Aquifer Water Quality Standard(s)
BTOC	below top of casing
c-1,2-DCE	cis-1,2- dichloroethene
COC(s)	chemical (s) of concern
COPC(s)	chemical(s) of potential concern
Cr	Total Chromium
CSM	Conceptual Site Model
DO	Dissolved Oxygen
EPA	United States Environmental Protection Agency
FLUTe	Flexible Liner Underground Technologies
FS	Feasibility Study
ft/ft	feet per foot
IDW	Investigation Derived Waste
µg/L	micrograms per liter
mg/L	milligrams per liter
PCE	tetrachloroethene (*aka* perchloroethene or perchloroethylene)
RI	Remedial Investigation
RI Report	Miracle Mile WQARF Registry Site Remedial Investigation Report
RPD(s)	Relative Percent Difference(s)
Site	Miracle Mile WQARF Registry Site
SVE	Soil Vapor Extraction
TCE	trichloroethene (*aka* trichloroethylene)
TestAmerica	TestAmerica Laboratories, Inc.
URS	URS Corporation
VOC(s)	Volatile Organic Compound(s)
WQARF	Water Quality Assurance Revolving Fund

1.0 INTRODUCTION

The purpose of this Groundwater Monitoring Report is to provide a summary of field and analytical data collected for the Miracle Mile Water Quality Assurance Revolving Fund (WQARF) (the Site) sampling event conducted in March 2015. The last groundwater sampling event that included water level gauging and water quality sampling was conducted from April through June 2014 by URS Corporation (URS) on behalf of the Arizona Department of Environmental Quality (ADEQ) (URS, 2014). The objectives of the March 2015 groundwater monitoring event and this report are to:

- Provide a summary of field and analytical data collected for the Site during the March 2015 groundwater sampling event;
- Compare the March 2015 data to historical water levels and contaminants of concern (COCs) and contaminants of potential concern (COPCs) concentrations in perched and regional groundwater to determine trends at the Site;
- Provide our professional opinion on said trends as they pertain to selection of a preferred remedial alternative for the Site as the Feasibility Study (FS) progresses;
- Provide recommendations to enhance the current routine (currently annual) groundwater sampling program, such as:
    - Optimization of the existing well network to reduce monitoring frequency and/or redundancy (and to save costs);
    - Addition of new wells to further characterize Site COCs and nitrate concentration distributions in perched and regional groundwater for use in the FS; and
    - Corrective actions to improve the quality and usability of data.

Groundwater sampling is conducted in support of the FS to monitor the COCs detected in the perched zone and regional aquifer beneath the Site. The Site COCs are chemicals that continue to persist in regional groundwater at concentrations exceeding the Arizona Aquifer Water Quality Standards (AWQSs), and are associated with former and/or current Site use and hydrogeological conditions.

The COCs currently established for the Site include trichloroethene (TCE) and total chromium (Cr), with AWQSs of 5.0 micrograms per liter (µg/L) and 100 µg/L, respectively. The Cr samples were not filtered prior to analysis. There are also COPCs that have been periodically monitored at the Site. The Site COPCs are chemicals that periodically exist in the groundwater above the AWQSs. Currently, it is uncertain if the Site is the source of the COPCs. The Site COPCs include nitrate, tetrachloroethene (PCE), 1,1-dichloroethene (1,1-DCE) and cis-1,2-dichloroethene (c-1,2-DCE), with AWQSs of 5.0 µg/L, 7.0 µg/L, and 70 µg/L, respectively. If additional evaluation indicate that that the CPOCs are associated with the Site, one or more could be listed as COCs, and would need to be addressed in the FS.

The groundwater monitoring network consists of 46 groundwater wells (Figure 1). Well information is provided in Table 1. During the March 2015 groundwater monitoring event, groundwater levels were measured in 46 wells (20 perched zone wells and 26 regional wells) (Table 2). Groundwater samples were collected from 34 wells (eight perched zone monitoring

wells, 25 regional groundwater monitoring wells and one private water supply well [the Villa Capri well]).

Groundwater monitoring was performed in general accordance with the Groundwater Sampling Technical Memorandum dated January 30, 2015 (Amec Foster Wheeler Environment & Infrastructure, Inc. [Amec Foster Wheeler], 2015). The regional groundwater wells were sampled with dedicated sampling pumps. Perched groundwater wells were sampled with disposal polyethylene bailers. The sampling procedure is briefly summarized as follows:

1. Measure depth to groundwater.
2. Calculate well volume based on the total well depth, depth to groundwater and well casing diameter.
3. Purge a minimum of three well volumes and/or when field parameters have stabilized within 10 percent (%) after three consecutive readings.
4. Collect water samples.
5. Decontaminate the water level indicator.

The groundwater samples were analyzed by TestAmerica Laboratories, Inc. (TestAmerica) located in Phoenix, Arizona. TestAmerica is an Arizona Department of Health Services licensed laboratory. The groundwater samples were analyzed for volatile organic compounds (VOCs) using United States Environmental Protection Agency (EPA) Method 8260B, Cr using EPA Method 200.7, and nitrate using EPA Method 300.0.

The water quality parameters of pH, temperature, and specific conductance were periodically recorded during well purging using an YSI 556 water meter equipped with a flow-thru cell. The samples were collected from the discharge line into containers provided by the laboratory and then placed on ice to await shipping. The following table provides a list of the wells that were not sampled or measured for depth-to-groundwater, along with a brief explanation.

Well Identification	Date	Comments
IRA-3		Well no longer sampled due to historic non-detectable COC and COPC concentrations. Water levels are still measured.
IRA-10-100	3/12/15	Insufficient water, not sampled
IRA-11-70	3/13/15	Insufficient water, not sampled
IRA-15	3/6/15	Insufficient water, not sampled
IRA-14	3/18/15	Could not measure water levels due to required specialized sounder not being provided
IRA-14(1)	3/18/15	Dry, not sampled or gauged
IRA-14(5)	3/18/15	Flexible Liner Underground Technologies port #5 inoperable (suspect check valve). Not sampled
IRA-18	3/09/15	Insufficient water, not sampled
IRA-19	3/09/15	Insufficient water, not sampled
IRA-20	3/09/15	Insufficient water, not sampled
IRA-23	3/10/15	Insufficient water, not sampled
IRA-27	3/19/15	Insufficient water, not sampled
IRA-28	3/10/15	Dry, not sampled or gauged

Well Identification	Date	Comments
IRA-29	3/10/15	Insufficient water, not sampled
IRA-31	3/17/15	Sampling pump not operable (suspect broken pump)
IRA-34		Well not sampled due to historic non-detectable COC and COPC concentrations. Water levels still measured.
IRA-35		Well not sampled due to historic non-detectable COC and COPC concentrations. Water levels still measured.
SJ-MW-1	3/17/15	Dry, not sampled or gauged
SJ-MW-3	3/17/15	Insufficient water, not sampled
FWID-70	3/17/15	Taken off-line for maintenance, not sampled
FWID-75	3/17/15	Taken off-line for maintenance, not sampled

2.0 GROUNDWATER MONITORING PROGRAM

2.1 Groundwater Elevation Measurements

Appendix A includes all field forms, notes, and the laboratory chains of custody from the March 2015 event. Appendix B provides tabulated historical depth-to-groundwater and calculated groundwater elevation data for all Site monitoring wells from 1992 through March 2015. Table 2 provides a summary of measured depth to groundwater and calculated groundwater elevations for the perched zone and regional wells collected during the March 2015 event.

2.1.1 Perched Zone

Figure 2 illustrates the perched groundwater elevations and provides saturated thickness isopachs based on the available data and boring logs for the perched zone wells. Figure 3 illustrates historical water elevation hydrographs for select perched zone wells. As illustrated on Figure 3, perched zone water levels have been relatively stable, with the exception of wells that have gone dry and the time period between 2004 and 2008 when water levels were measured more frequently. The inconsistent trends reflected in the increased frequency measurements (fluctuating water levels) suggests short-term seasonal responses to recharge events versus long responses as reflected in the overall trend illustrated in Figure 3. Figure 2 also includes a perched water isopach thickness map. The isopach thickness is based on the thickness of the water column in the well, specifically the length from the water table to the bottom of the well casing. As later discussed in **Section 6.0**, the saturated perched zone is spatially located near the center of the TCE plume.

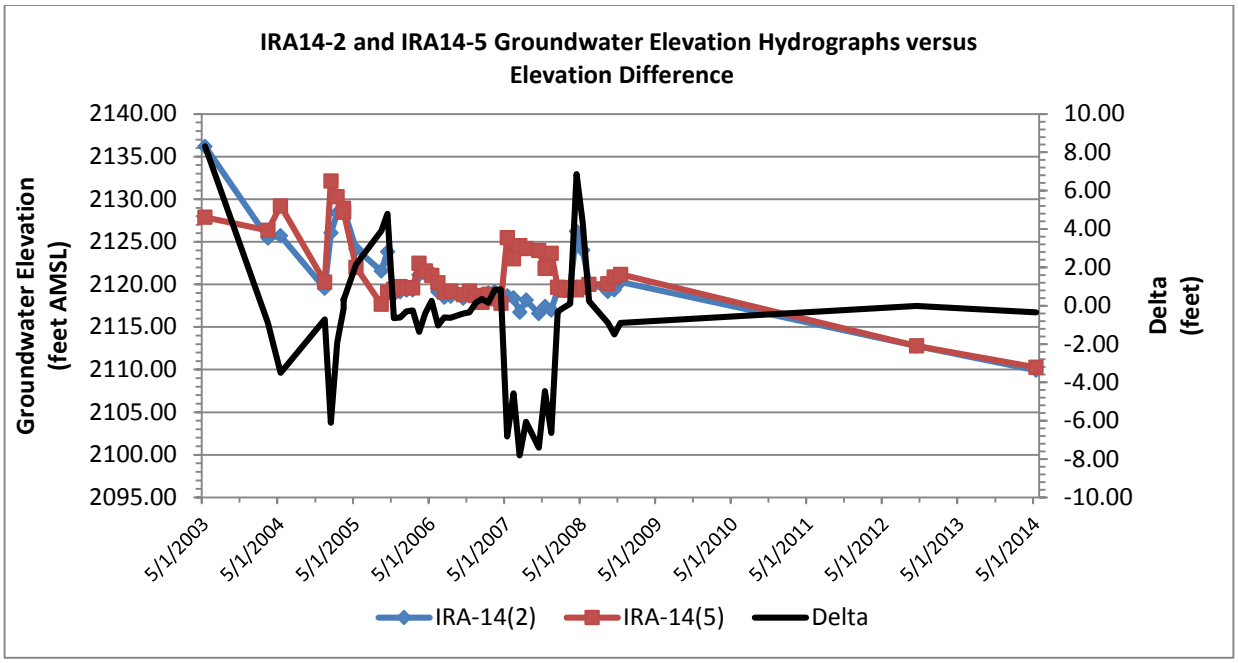
2.1.2 Regional Groundwater

Figure 4 illustrates the regional groundwater elevations, contours, and flow direction. As illustrated in Figure 4, regional groundwater flows in a northwesterly direction at a gradient of 0.0028 feet per foot (ft/ft). A steeper gradient of 0.0097 ft/ft was calculated in the upgradient area between wells IRA-4 and IRA-31. The groundwater flow direction and gradient is similar to the June 2014 monitoring event (URS, 2014) and has been consistent at the Site since 2002.

However, between 1992 and 2000, groundwater flowed in a northeasterly direction. Figure 5 illustrates historic regional groundwater flow directions.

Figure 6 illustrates historic water elevation hydrographs for select regional wells. Figure 6 includes the Arizona Department of Water Resources reported historic annual pumping volumes from nearby production wells (approximately two-mile radius around the Site) for 1991 through 2013 (the 2014 and 2015 data is not yet available). As illustrated on Figure 6, there is a consistent declining trend in regional groundwater levels across the Site from 1991 to 2014, with an average total decline of 18.39 feet. Compared to the June 2014 data, the March 2015 water levels increased by an average of 2.42 feet.

Amec Foster Wheeler has evaluated historic differences in water elevations in well IRA-14 to determine if there were any vertical hydraulic gradient trends in regional groundwater. Well IRA-14 is a Flexible Liner Underground Technologies (FLUTe) well constructed with five discrete monitoring/screen depths, that include IRA-14(1), IRA-14(2), IRA-14(3), IRA-14(4) and IRA-14(5) (Table 1). Well IRA-14(1) is no longer sampled because the screen is dry (due to declining water levels over time). The shallowest saturated interval IRA-14(2) is screened from 190-200 feet below top of casing (BTOC), and the deepest interval IRA-14(5) is screened from 290-300 feet BTOC. The results of this evaluation are presented in the following graph. Depth-to-groundwater measurements were not collected from this well during the March 2015 event because the specialized sounder for this well was not included in the equipment package provided to Amec Foster Wheeler (see **Section 7.0 Recommendations**). FLUTe well maintenance was performed on June 5, 2015.



The "Delta" value is the calculated change in groundwater elevation (in feet) between IRA-14(2) and IRA-14(5). Negative values indicate an upward gradient; values near "0" represent a horizontal gradient; and, positive values indicate a downward gradient. The graph above illustrates the following trends and anomalies:

- A relatively horizontal gradient when water levels are not in fluctuation (mid-2005 to 2007; and, mid-2008 to 2014);
- A downward gradient when water levels rapidly decline (2003 to late 2004; and, 2007);
- An upward gradient when water levels rapidly rise (early 2005; and, early 2008); and
- An anomalous period during 2007 when IRA-14(5) water levels did not track with IRA-14(2) water levels; they were significantly higher in IRA-14(5).

2.2 Groundwater Quality Sampling

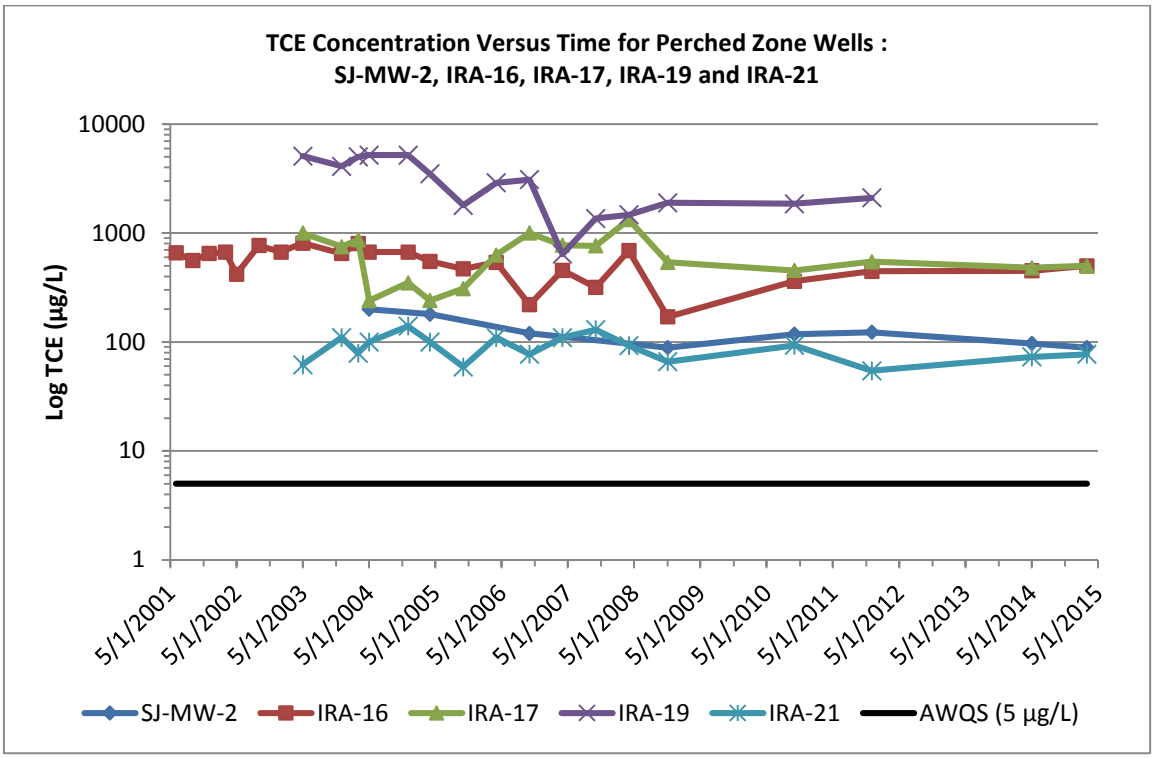
Field forms documenting the sampling event are included in Appendix A. Compounds sampled for fare TCE and Cr (the Site COCs), and nitrate, PCE, 1,1,-DCE and c-1,2-DCE (the Site COPCs).

2.2.1 Perched Zone

TCE, Cr and nitrate concentration distributions for the March 2015 sampling event are presented on Figures 7, 8 and 9, respectively. Table 3 presents a summary of the March 2015 groundwater sample analytical results. Tables 15 through 18 of the Remedial Investigation (RI) report (URS, 2013) have been updated with the March 2015 event analytical results and are provided herein as Appendix C. Table 4 provides a comparison of TCE, Cr and nitrate concentrations for perched zone wells between the June 2014 and March 2015 groundwater sampling events, and calculates the % increase or decrease between the two events.

2.2.1.1 TCE

All eight perched zone wells sampled had reported TCE concentrations above the AWQS of 5 µg/L, ranging from 5.4 µg/L (IRA-40) to 500 µg/L (IRA-16 and IRA-17). IRA-40 has only been sampled twice (June 2014 and March 2015), with the first result being less than the AWQS (3.8 µg/L) .Historically, the range of reported TCE concentrations above the AWQS have been from 8.6 to 26 µg/L at IRA-12-70 (on the low end) to 640 to 5,200 µg/L (on the high end). A TCE concentration (logarithmic) versus time graph for perched zone wells SJ-MW-2, IRA-16, IRA-17, IRA-19, and IRA-21 is provided below to evaluate trends,

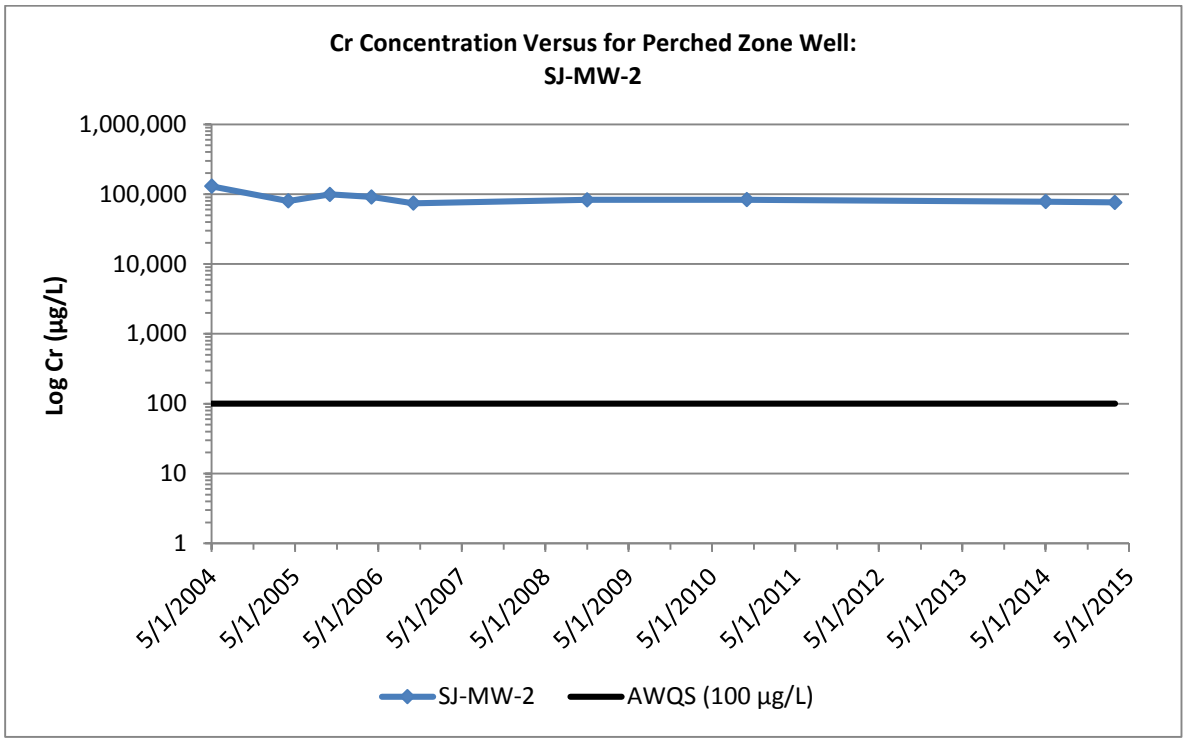


As illustrated in the graph above, TCE concentrations had a generally decreasing trend from 2001 through 2010, followed by a relatively stable trend from 2011 through 2015. Well IRA-19 (dry during the March 2015 event) typically has the highest reported TCE concentrations of all perched zone wells. An exception to this was in April 2007, when IRA-17 (773 µg/L) had a higher reported TCE concentration than IRA-19 (640 µg/L). The consistent TCE concentrations above the AWQS indicate a continuing source of TCE in the vadose and/or perched groundwater zone. As later discussed in **Section 6.0**, it is currently suspected that the perched zone continues to be a source of contamination to regional groundwater, particularly near the upgradient end of the TCE plume.

2.2.1.2 Chromium

Two of the eight perched zone wells sampled (SJ-MW-2 and IRA-40) had reported Cr concentrations above the AWQS of 100 µg/L. The reported exceedances were 76,000 µg/L (SJ-MW-2) and 150 µg/L (IRA-40). Historically, only samples collected from wells SJ-MW-1, SJ-MW-2, SJ-MW-3 and IRA-40 have reported Cr concentrations above the AWQS. Wells

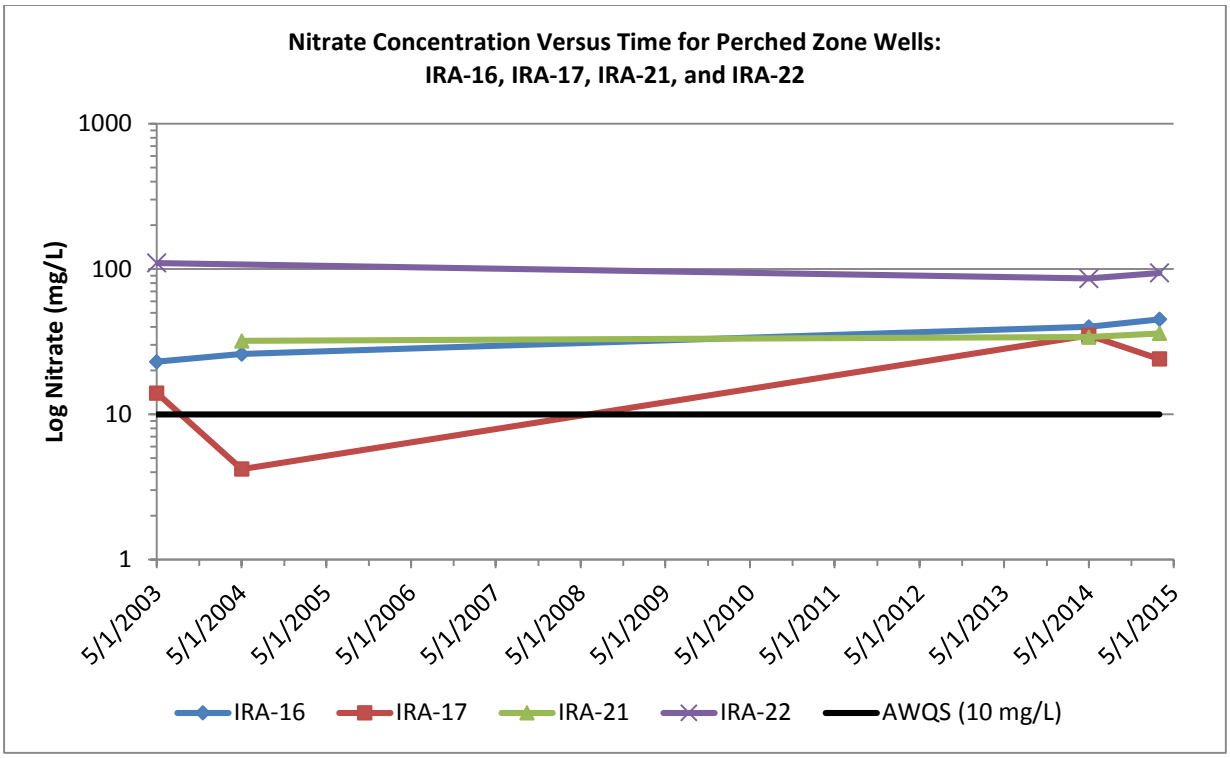
SJ-MW-1 and SJ-MW-3 are typically dry and have only been sampled a few times (SJ-MW-1 in March and May 2004, and SJ-MW-3 in April and October 2006 and in June 2014). These wells were dry during the March 20015 sampling event. Well IRA-40 was installed in 2014 and has only been sampled twice (June 2014 and March 2015). Therefore, SJ-MW-2 is the only well with a sufficient number of data points to evaluate trends. A Cr concentration (logarithmic) versus time graph for perched zone well SJ-MW-2 is provided below.



As illustrated in the graph above, Cr concentrations in samples collected from perched zone well SJ-MW-2 have been generally stable over time, and more than two orders of magnitude above the AWQS of 100 µg/L. This suggests a continuing source of Cr in the vicinity of SJ-MW-2.

2.2.1.3 Nitrate

Six of the eight perched zone wells sampled (SJ-MW-2, IRA-16, IRA-17, IRA-20, IRA-22 and IRA-30) had reported nitrate concentrations above the AWQS of 10 milligrams per liter (mg/L). The reported exceedances ranged from 24 mg/L (IRA-17) to 94 mg/L (IRA-22). Based on availability of data (three or more data points), a nitrate concentration (logarithmic) versus time graph for perched zone wells IRA-16, IRA-17, IRA-21 and IRA-22 is provided below.



As illustrated in the graph above, nitrate concentrations in the perched zone wells have been relatively stable, with the exception of IRA-17, which has fluctuated over time. Historically, well IRA-22 has the highest nitrate concentrations in all perched zone wells sampled (94 mg/L in March 2015). All of the perched zone wells shown above have been consistent above the AWQS of 10 mg/L.

2.2.1.4 Other COPCs

None of the eight perched zone wells sampled had reported PCE or c-1,2-DCE concentrations above the AWQSs of 5 and 70 µg/L, respectively. Historically, well IRA-19 (dry during the March 2015 event) has reported c-1,2-DCE concentrations above the AWQS of 70 µg/L, and has been higher than any other perched wells. c-1,2-DCE is a daughter product from reductive dechlorination of TCE.

Well IRA-30 was the only well sampled with a reported 1,1-DCE concentration above the AWQS of 7 µg/L (7.1 µg/L). 1,1-DCE concentrations in samples from well IRA-30 have been decreasing with time. 1,1-DCE is typically associated with abiotic hydrolysis of 1,1,1-trichloroethane.

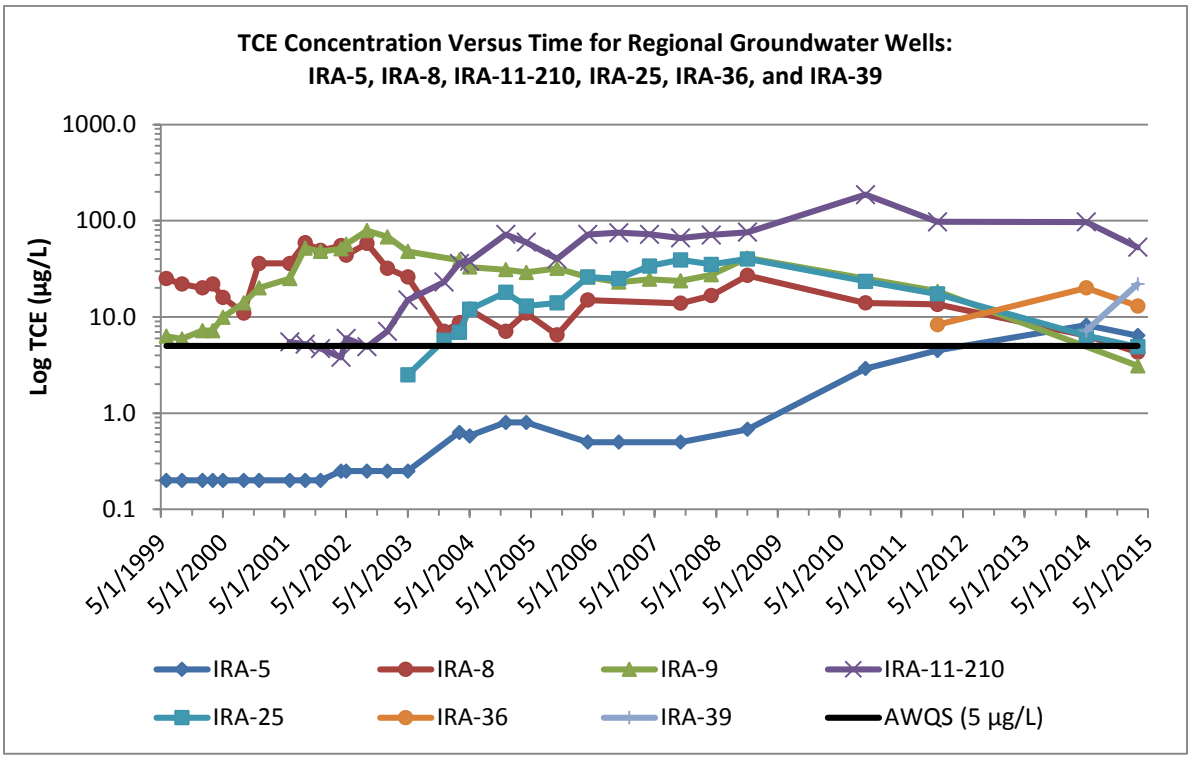
2.2.2 Regional Groundwater

TCE, Cr and nitrate distributions for the regional groundwater wells are presented on Figures 10, 11 and 12 respectively. Figure 10 (TCE plume map) also includes the saturated thickness isopachs that were developed for the perched zone (Figure 2). **Section 6.0** provides a discussion on its significance. Plumes were not delineated for Cr and nitrate because there was only one Cr exceedance above the AWQS, and because nitrate is not a Site COC. Table 5 provides a comparison of TCE, Cr and nitrate concentrations for the following select regional

groundwater wells between the June 2014 and March 2015 groundwater sampling events, and calculates the % increase or decrease between the two events: IRA-5, IRA-8, IRA-11-210, IRA-12-210, IRA-24, IRA-25, IRA-36 and IRA-39. These wells were selected based on the presence of TCE, Cr or nitrate above their respective AWQS, and their spatial distribution across the Site.

2.2.2.1 TCE

Six of the 23 regional groundwater wells sampled had reported TCE concentrations above the AWQS of 5 µg/L. The reported exceedances ranged from 6.7 µg/L (upgradient well IRA-4) to 53 (IRA-11-210). A TCE concentration (logarithmic) versus time graph for regional groundwater wells IRA-5, IRA-8, IRA-11-210, IRA-25, IRA-36 and IRA-39 is provided below. These wells were selected based on historic concentrations relative to the AWQS, and their spatial distribution relative to the March 2015 TCE plume (Figure 10).



As illustrated in the graph above, the following trends are observed:

- IRA-5: Stable from June 1999 to May 2003; increasing from May 2003 to May 2014; Slight decrease from June 2014 to March 2015.
    - This well is located approximately in the southwest corner of the March 2015 TCE plume boundary. The increasing trend suggests a continuing source and a shift in the predominant groundwater flow direction from northeasterly to northwesterly after year 2000 (Figure 5).

- IRA-8: Decreasing from June 1999 to September 2000; Increasing from September 2000 to September 2002; Decreasing from September 2002 to March 2015.
    - This well is located approximately 250 feet south of the March 2015 TCE plume boundary. The increasing trend suggests a continuing source, while the decreasing trend suggests a northerly plume migration pattern.

- IRA-9: Increasing from June 1999 September 2002; Decreasing from September 2002 to March 2015.
    - This well is located along the western edge of the March 2015 TCE plume boundary. From 1992 to 2002, groundwater flowed in a predominantly northeasterly direction; thereafter it shifted to a northwesterly direction (Figure 5). This would explain the increasing and decreasing TCE concentration trends over the same time periods.

- IRA-11-210: Stable from June 2001 to September 2002; Increasing from September 2002 to October 2010; Decreasing from October 2010 to March 2015.
    - This well is located approximately 1,400 feet northwest of the suspected source of TCE to regional groundwater. TCE concentrations started increasing after December 2002. This is attributed to the northeasterly to northwesterly shift in groundwater flow directions. Since 2004, samples from this well have had the highest reported TCE concentrations of all regional groundwater wells.

- IRA-25: Increasing from May 2003 to November 2008; Decreasing from November 2008 to March 2015.
    - This well is located near the middle of the eastern edge of the March 2015 TCE plume boundary. This well was installed in 2003 and was located in the 1992-2002 downgradient direction (northeast) of the suspected source of TCE to regional groundwater. This explains the elevated reported TCE concentrations in samples collected from this well during the period of 2003-2008. The decreasing concentrations since 2008 are attributed to the northeasterly to northwesterly shift in groundwater flow directions.

- IRA-36: Increase (8.32 to 20 µg/L) from December 2011 to June 2014, followed by a slight decrease from June 2014 to March 2015 (20 to 13 µg/L).
    - This well is located approximately 1,736 feet northwest of IRA-25. The increasing TCE concentrations are attributed to the northeasterly to northwesterly shift in groundwater flow directions.

- IRA-39: Increase (7.2 to 22 µg/L) from June 2014 to March 2015.
    - This well is located 2,100 feet north-northwest of well IRA-11-210 and in the approximate center of the March 2015 TCE plume. The increasing TCE concentrations are attributed to downgradient (northwest) TCE plume migration from the suspected source location and IRA-11-210.

Overall, the above trends suggest:

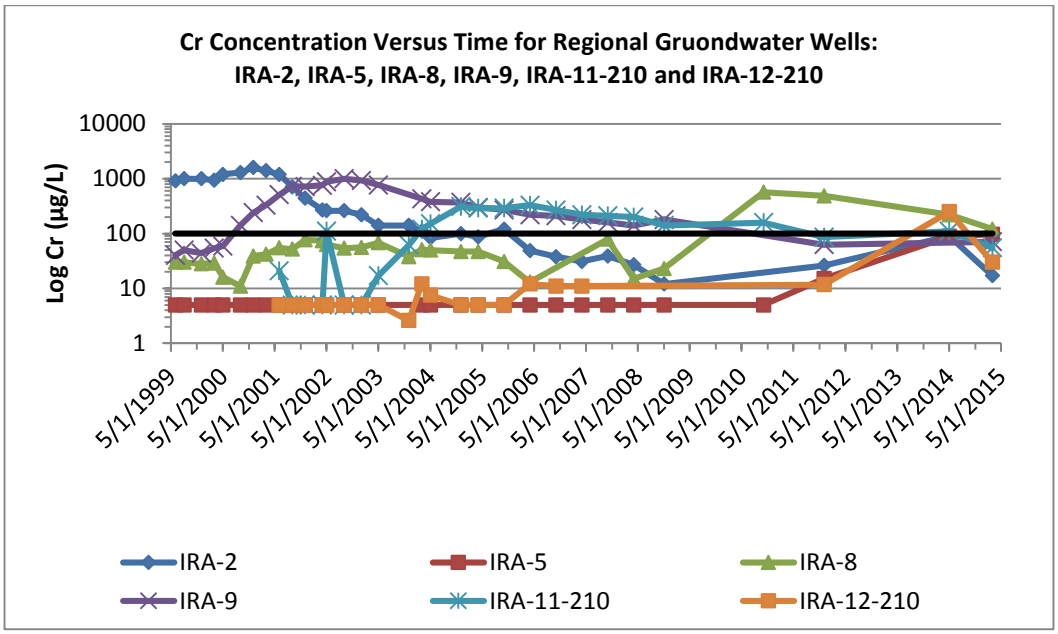
1. Continued TCE source in the downgradient plume area; and
2. General plume movement to the northwest, consistent with the predominant direction of groundwater flow at the Site since 2002 (Figure 5).

The shape and spatial distribution of the March 2015 TCE plume has changed slightly compared to the June 2014 sampling event. Specifically, the southern and eastern edges of the plume have moved to the north and west, respectively, as TCE concentrations have decreased in IRA-8 on the south, and in IRA-9 and IRA-25 on the east (Figure 10). The table below shows that the size of the TCE plume above the AWQS from June 2014 to March 2015 decreased by 38.23%.

Sampling Event	TCE Plume (acres)	Change in TCE Plume Size (%)
June 2014	394.10	
March 2015	243.43	-38.23%

2.2.2.2 Chromium

Well IRA-8 was the only regional groundwater well sampled with a reported Cr concentration above the AWQS of 100 µg/L (120 µg/L). Historically, wells IRA-2, IRA-9, IRA-11-210, IRA-14-1 and IRA-14-2 have Cr concentrations above the AWQS. A Cr concentration (logarithmic) versus time graph for regional groundwater wells IRA-2, IRA-5, IRA-8, IRA-9, IRA-11-210 and IRA-12-210 is provided below. These wells were selected based on historic concentrations relative to the AWQS, and their spatial distribution relative to March 2015 Cr concentrations (Figure 11).



As illustrated in the graph above, the following trends are observed:

- IRA-5: Non-detect from June 1999 to October 2010; Increasing from October 2010 to March 2015.
    - This well is located approximately 3,500 feet northwest of the suspected Cr source area. As previously discussed, increasing TCE concentrations have also been observed in the samples collected from this well. Additional time series data is needed to further evaluate potential trends.

- IRA-8: Variable below AWQS between 1999 and 2008, Increasing above AWQS from April 2008 to October 2010, Decreasing to March 2015.
    - This well is located approximately 800 feet northwest of the suspected Cr source. Filtered sample testing from October 2005 to December 2011 indicate the chromium is dissolved. The increasing trend since 2008 suggests a continuing Cr source.

- IRA-9: Increasing from June 1999 September 2002; Decreasing from September 2002 to March 2015.
    - This well is located approximately 2,170 feet north of the suspected Cr source. Filtered samples collected from October 2005 to December 2011 indicate the Cr is dissolved. The decreasing Cr concentrations since September 2002 are attributed to the northeasterly to northwesterly shift in groundwater flow directions.

- IRA-11-210: Increasing from January 2003 to October 2005; Decreasing to March 2015.
    - This well is located approximately 1,820 feet northwest of the suspected Cr source. Filtered sample collected from October 2005 to December 2011ndicate the Cr is dissolved. The increasing Cr concentrations since September 2002 are attributed to the northeasterly to northwesterly shift in groundwater flow directions.
- IRA-12-210: Generally stable (10 to 11 µg/L) from June 2011 to December 2011; Increased in June 2014 (250 µg/L); Decreased in March 2015 (30 µg/L).
    - This well is located approximately 1,260 feet northwest of the suspected Cr source. The June 2014 increase to 250 µg/L should be further investigated as a labeling, sampling procedure and/or analytical error because it does not correlate to historical trends.

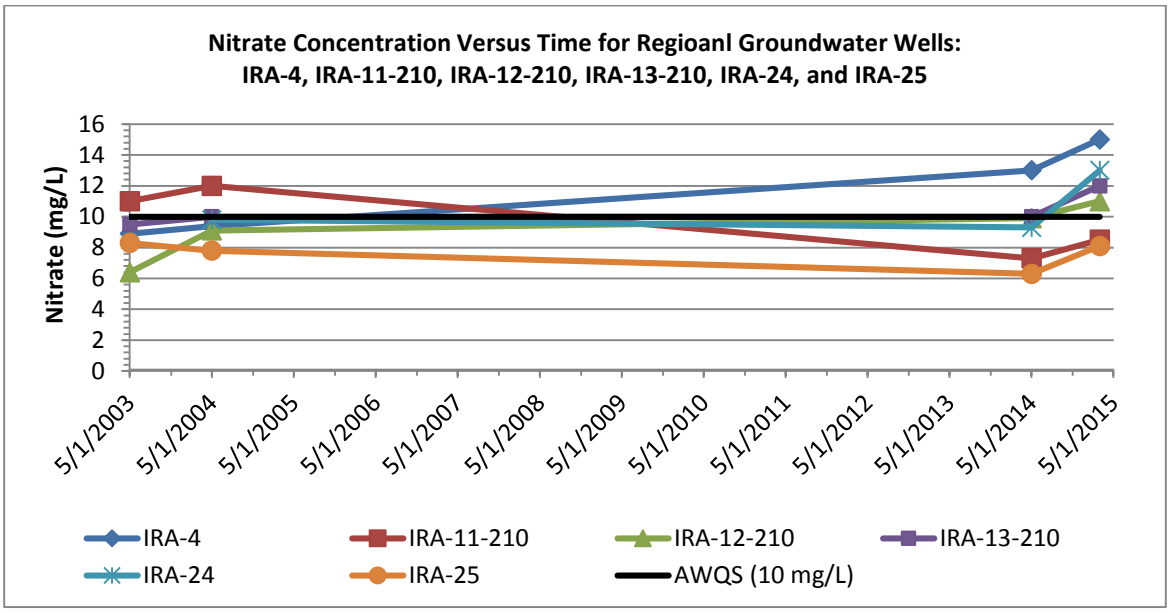
Overall, the above trends suggest:

1. Continued dissolved Cr source in the downgradient plume area; and,
2. General plume movement to the northwest, consistent with the predominant direction of groundwater flow at the Site since 2002 (Figure 5).

2.2.2.3 Nitrate

Seven of the 23 regional groundwater wells sampled (IRA-4, IRA-12-210, IRA-13-210, IRA-24, IRA-32, IRA-33 and IRA-39) had reported nitrate concentrations above the AWQS of 10 mg/L. Reported concentrations ranged from 11 mg/L (IRA-12-210, IRA-32, IRA-33 and IRA-39) to 15 mg/L (upgradient well IRA-4). A nitrate concentration (logarithmic) versus time graph for

regional groundwater wells IRA-4, IRA-12-210, IRA-13-210, IRA-24, IRA-32, IRA-33 and IRA-39 is provided below. These wells were selected based on historic concentrations relative to the AWQS, and their spatial distribution relative to March 2015 nitrate exceedances above the AWQS (Figure 12).



As indicated above, nitrate concentrations have fluctuated between 5 to 15 mg/L. However, nitrate concentrations in the evaluated wells increased between the 2014 and 2015 sampling events. The data indicates that nitrate concentrations have been increasing in upgradient well IRA-4 and are typically higher than the nitrate concentrations reported for the other wells. The exception is the May 2003 and May 2004 data collected from IRA-11-210. However, nitrate concentrations have decreased below the AWQS of 10 mg/L in samples collected from IRA-11-210 while nitrate concentrations have been increasing in samples collected from IRA-4.

2.2.2.4 Other COPCs

1,1,-DCE and c-1,2-DCE were not reported above their respective AWQSs in the samples collected from the regional wells. This is consistent with historical sampling results (see RI Table 15 in Appendix C). PCE was reported at a concentration of 34 µg/L and above the AWQS of 5.0 µg/L in the sample collected from IRA-1. Samples collected from IRA-1 are historically reported PCE above the AWQS of 5.0 µg/L. As shown in RI Table 15 in Appendix C, the PCE concentration reported in the March 2015 sample from IRA-1 is consistent with previous results to 2007.

3.0 DATA VERIFICATION

Amec Foster Wheeler submitted the March 2015 samples to TestAmerica, located in Phoenix, Arizona. All analytical data were verified by reviewing the analytical reports per the ADEQ data verification forms. Copies of the laboratory analytical reports are presented in Appendix D. The TestAmerica certified analytical reports and supporting documentation were reviewed to assess the following:

- Data package deliverable completeness;
- Chain of custody compliance;
- Holding time compliance;
- Presence or absence of laboratory contamination as demonstrated by laboratory blanks;
- Temperature of samples at time of submittal;
- Accuracy and bias as demonstrated by recovery laboratory control sample and matrix spike samples;
- Analytical precision as relative percent difference (RPD) of analyte concentration between laboratory duplicates or matrix spike and matrix spike duplicates; and
- Insofar as possible, the degree of conformance to method requirements and good laboratory practices.

Forms detailing results of data verification are presented in Appendix E. Anomalies, deficiencies and Quality Control problems identified in the laboratory reports were reviewed and added to the data verification forms. The following anomalies were identified:

- Naphthalene and methylene chloride – Reported in two separate trip blank samples.

These compounds are not COCs and were not reported at concentrations that would cause the samples to be rejected. In conclusion, no data qualifiers were assigned to the reported results that caused any data to be rejected and not usable.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

Three duplicate samples (10% of the total sample population) were collected and analyzed for VOCs, Cr, and nitrate. Evaluation of the data indicates that the data is of sufficient quality for the purposes of this groundwater monitoring event and for use in evaluating remedial alternatives during the FS.

<u>VOCs and nitrate:</u> The maximum RPDs between primary and duplicate results were either less than 20%, or the difference between primary and duplicate results were less than the reporting limit, indicating acceptable sampling and analytical precision.

<u>Cr:</u> The RPD between primary and duplicate results in two wells (IRA-12-70/IRA-12-70DUP and IRA-14(4)/IRA-14(4) DUP) exceeds 20%. Unfortunately, Amec Foster Wheeler did not collect field water quality parameters on the perched zone wells or from the FLUTe well (IRA-14(2) through IRA-14(5). This is a future recommendation to verify this type of hypothesis, and to have additional water quality data to compare perched zone water to regional aquifer water chemistry (primarily to aid in determining if nitrate should (or should not) be a Site COC [see **Section 7.0**]).

5.0 INVESTIGATION DERIVED WASTE (IDW)

Purge water and decontamination water associated with March 2015 event was contained in a water wagon and transferred to a Baker tank located at Flowing Well Irrigation District's storage facility located at 1444 West Ruth Street. The chemical analysis results from a water sample

taken at the Baker Tank demonstrates that it is industrial non-hazardous waste. Therefore, it was transported off-site by Chemical Transport, Inc. to the Liquid Environmental Solutions facility located at 5159 West Van Buren Street, Phoenix, Arizona, on June 1, 2015. March 2015 event IDW documents are provided in Appendix F.

6.0 CONCEPTUAL SITE MODEL AND REMEDIAL ALTERNATIVE SCREENING PROCESS

The March 2015 event data, when compared to previous sampling events, continues to indicate that there is a residual source of TCE and Cr in the deeper portion of the vadose/perched zone at the Site. The lines of evidence for both are provided below:

TCE Source:

- Appears to be located in the area near wells SJ-MW-2, IRA-16, IRA-17 and IRA-19; these wells continue to have the highest TCE concentrations in the perched zone (Figure 7).
- The conceptual site model (CSM) presented in the Miracle Mile WQARF Registry Site Remedial Investigation Report (RI Report) identifies the perched zone as a continuing TCE source (from vapor phase TCE). This is based on TCE not being detected in soil samples above residential soil remediation levels [URS, 2013]).
- Amec Foster Wheeler has proposed an additional TCE soil vapor investigation to support the FS and to locate and quantify potential residual TCE. The shallow soil gas survey will include TCE and COPCs to primarily evaluate potential vapor intrusion risks.

Cr Source:

- Appears to be located in the area near well SJ-MW-2, which has the highest historical concentrations of Cr in the perched zone (76,000 µg/L in March 2015) (see Cr concentration versus time graph in **Section 2.2.1.2**).
- Amec Foster Wheeler has proposed an additional Cr soil investigation for the Spring Joint facility as part of the preliminary FS to locate and quantify potential residual Cr. Specifically, we have proposed to install and sample one soil boring to a depth of 100 feet below ground surface (bgs). If perched zone water is encountered, then the boring will be completed as a 4-inch diameter monitoring well and added to the routine monitoring network. In addition, a new perched monitoring well will be installed northwest of SJ-MW-2 to define the northern extent Cr contamination in perched groundwater. The expected total depth of this well is approximately 100 feet. This well will also be added to the routine monitoring network.

TCE and Cr Summary: Based on historical TCE and Cr concentrations and their trends in regional wells, TCE and Cr in the vadose/perched zone may be migrating to regional groundwater. The CSM presented in the RI Report indicates that the perched zone in the area of the Spring Joint facility continues to be a potential source of Cr to the regional aquifer (URS, 2013). The confining layer that forms the base of the perched zone also becomes coarser toward the north, resulting in the absence of perched water northwest of well IRA-11-70 (Figure 2). Therefore, perched water could be entering the regional groundwater to the north of

this confining layer. It is also suspected (based on Site geologic logs) that the “confining layer” is not a true aquitard, but instead a leaky aquitard, thus allowing groundwater to move from the perched zone to regional groundwater. The March 2015 event data support this hypothesis. It should also be noted that the TCE plume is moving to the west and northwest in response to the post 2002 predominant groundwater flow direction at the Site (Figure 5). The TCE concentration data at regional groundwater wells IRA-5, IRA-36 and IRA-39 support this hypothesis; see TCE concentration versus time graph in **Section 2.2.2.1**. Therefore, as part of the preliminary FS, Amec Foster Wheeler has proposed to:

- Install and monitor two new downgradient wells (identified as IRA-42 and IRA-43) to the north and west of the March 2015 TCE plume (Figure 10). Both wells would also be pumped tested to obtain aquifer parameters that will be used to update the CSM and the potential transient 3-D groundwater flow and transport model for the Site.

In addition, Amec Foster Wheeler believes a third new regional groundwater well should be considered to the northeast of the March 2015 TCE plume (see **Section 7.0**). This well would allow ADEQ to monitor potential migration of COCs and CPOCs to the northeast if groundwater flow directions were to temporarily or permanently shift back to a northeasterly flow direction (Figure 5).

Although there is some indication of reductive dechlorination of TCE to c-1,2-DCE in the perched zone, this does not appear to be a mechanism in the natural attenuation of TCE. Therefore, the first step in remediating this Site will be to remove the continuing source of contamination to the regional groundwater from the vadose/perched zone. Pending the results of a proposed shallow soil vapor survey and soil vapor extraction (SVE) pilot test, SVE will be considered as a remedial alternative for removal of the TCE in the vadose/perched zone. The Cr could be treated using a chemical reducing agent, such as calcium polysulfide, that reduces soluble and mobile hexavalent chromium to insoluble and immobile trivalent chromium. The calcium polysulfide can be injected into the subsurface. To avoid compromising valuable water quality data from the existing monitoring wells, the injections should be performed via new temporary or permanent remediation wells.

Once the residual contamination in the vadose/perched zone is remediated, there should be an influence on TCE and Cr concentrations in regional groundwater. Groundwater monitoring may be sufficient to evaluate if the TCE plume will continue to migrate in response to local groundwater pumping and recharge. However, source control/mass removal alternatives such as in-situ chemical oxidation may be considered to decrease TCE concentrations in the upgradient portions of the plume, thus assisting with natural attenuation to contain the downgradient edge of the plume. If further evaluation of the hydrogeology and geochemistry indicates the TCE plume may expand to existing drinking water wells, then a groundwater pump-and-treat system coupled with injection wells located along the downgradient edges of the TCE plume may be considered to control plume migration.

7.0 RECOMMENDATIONS

The following recommendations are based on the data and interpretations provided herein:

1. Optimize the current monitoring well network as follows:
   - Discontinue sampling of regional groundwater wells IRA-10-230 and IRA-26. However, to aid with understanding and depicting groundwater flow directions and gradients at the Site, depth-to-groundwater level measurements should continue to be collected as part of the routine program. Specific supporting information for the removal of both wells is provided below:
     - IRA-10-230: This well was installed in 1999. There have been no exceedances of COCs or CPOCs. TCE concentrations have historically ranged from <0.50 to 2.7 µg/L and have been non-detect since 2007. Well IRA-10-230 is screened from 145 to 225 feet bgs and is located approximately 1,015 feet to the northeast of IRA-13-210 (screened from 150 to 210 feet bgs), and approximately 1,155 feet to the east of IRA-9 (screened from 145 to 225 feet bgs). Therefore, both IRA-13-210 and IRA-9 provide adequate monitoring of the eastern TCE plume boundary. However, IRA-10-230 should be returned to the sampling program if TCE concentrations at either IRA-13-210 or IRA-9 rise above the AWQS.
     - IRA-26: Samples from this well have reported TCE concentrations above the AWQS from 2003 to 2006. Since 2006, TCE concentrations have been decreasing and are below the AWQS. The decreasing TCE concentrations since September 2002 are attributed to the northeasterly to northwesterly shift in groundwater flow directions. Well IRA-26 is screened from 170-240 feet bgs and is located approximately 1,960 feet to the northeast of IRA-9, approximately 2,170 feet north-northeast of IRA-13-210, and approximately 1,400 feet east-southeast of IRA-25. Therefore, wells IRA-9, IRA-13-210, and IRA-25 Provide adequate monitoring of the eastern edge of the regional TCE plume. However, IRA-26 may be returned to the sampling program should groundwater change back to a northeasterly direction.
   - Based on the anomalously high water levels measured in well IRA-34 compared to IRA-35, the dedicated pump and sounding tube assembly should be removed from the well to check the sounding tube for restrictions. Due to the overall recommendation that dedicated pumps be removed, we recommend that the pump not be returned to the well.

2. Install and sample new wells (identified as IRA-42 and IRA-43 on Figures 1 and 10) to further characterize Site COCs and nitrate concentration distributions in regional groundwater:
   - Based on the predominant northwesterly groundwater flow direction, additional wells IRA-42 and IRA-43 have been proposed to characterize the plume on the west and northwest. Currently, ADEQ is in the process of obtaining site access.
   - The northeastern portion of the regional groundwater TCE plume is not well defined; therefore, it is recommended that one monitoring well be installed in this area to help

delineate the plume boundary. A possible location is approximately 1,400 feet northeast of IRA-36 and between well IRA-32 and planned well IRA-43.

3. Corrective actions to improve the quality and usability of collected data and/or reduce costs include:
   - Obtain the specialized sounder required to measure water levels for the FLUTe intervals in well IRA-14.
   - Dedicated pumps installed in regional groundwater wells pumped are purged at a rate ranging from 1 to 5 gallons per minute (gpm) until three well volumes have been removed. This range of pumping rate does not qualify as a “low-flow” purging and sampling technique according to EPA guidelines (EPA, 1996). Additionally, the dedicated pumps periodically fail. Therefore, in the future, it is recommended that these dedicated pumps be removed and alternative sampling technologies (passive diffusion bags or purging via a removable low flow pump) be considered. This will substantially reduce the volume of liquid IDW generated, and reduce the time required to sample the wells. Combined, we have estimated this would result in a total cost savings of approximately $10,000 per sampling event (this includes estimated labor, equipment, and IDW storage/management).
   - Field water quality parameters (pH, temperature, and specific conductance at a minimum) should be collected and recorded on the field purge forms from the perched zone wells prior to sample bottling. This additional water quality data can be used along with the geochemical and isotope data (results currently pending) to compare perched zone water to regional aquifer water chemistry. This will be combined with the aid geochemical and isotope data to help determine if nitrate should (or should not) be a Site COC.
   - In addition to the above listed water quality parameters (pH, temperature, and specific conductance), ADEQ should consider monitoring for dissolved oxygen (DO) and oxidation reduction potential (ORP) from both the regional wells (via a YSI 556 water meter equipped with a flow-thru cell or similar instrument), and the perched wells (in well, via a similar meter connected to a Teflon® coated cable). These two parameters (DO and ORP) are important for the FS and the Site Remedial Objectives because they evaluate natural attenuation of TCE and the other COPCs. Specifically, DO above 2.0 parts per million and positive ORP indicate aerobic and oxidizing conditions, which are not amenable conditions to reductive dechlorination of TCE. This data can also be used to evaluate Cr speciation.
   - Groundwater monitoring should be conducted on a routine annual basis until the selected remedial alternatives have been implemented. Once implemented, the frequency may need to be increased in order to effectively monitor the effectiveness of the implemented method(s).

8.0 REFERENCES

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2015. *Groundwater Sampling Program for Miracle Mile WQARF Site, Tucson, Arizona.* Memorandum prepared for ADEQ. January 30, 2015.

United States Environmental Protection Agency (EPA), 1996. *Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells,* Quality Assurance Unit, U.S Environmental Protection Agency Region 1, July 30, 1996. Revised January 19, 2010

URS Corporation (URS), 2013. *Remedial Investigation of the Miracle Mile WQARF Site, Tucson, Arizona*. June 12, 2013.

URS, 2014. *2014 Sampling Event Summary for Miracle Mile Water Quality Assurance Revolving Fund Site*, Tucson, Arizona. June 27.

TABLES

Table 1 Well Information
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	Property Location/Facility Name	ADWR Registry Number	ADEQ #	Aquifer Zone	Well Use	Top of Casing Elevation (ft amsl)	Screen Interval (feet BTOC)	Northing (ft)	Easting (ft)	Casing Diameter (inches)
IRA-1	Abrams Airborne	55-529841	57689	Regional	Monitoring	2283.28	130-210	464772.57	981016.57	4
IRA-2	A Family Discount Storage	55-529840	57690	Regional	Monitoring	2295.99	150-230	466075.34	982175.48	4
IRA-3	FW High School	55-529842	57692	Regional	Monitoring	2305.3	150-240	464983.81	983739.07	4
IRA-4	Rio West	55-529843	57685	Regional	Monitoring	2292.45	130-220	463505.11	982320.90	4
IRA-5	9-1-1 Collision	55-530831	58234	Regional	Monitoring	2277.8	130-210	467148.30	980142.37	4
IRA-6	R. E. Darling	55-547953	57686	Regional	Monitoring	2290.98	138-203	464994.64	981883.76	4
IRA-7	Desert Refrigeration and Auto Service	55-547954	57688	Regional	Monitoring	2289.88	138-203	464665.54	981919.38	4
IRA-8	R. E. Darling	55-557128	57687	Regional	Monitoring	2293.19	140-200	465202.87	981868.63	4
IRA-9	First Rock 4x4 & Automotive Repair	55-562355	58229	Regional	Monitoring	2301.97	145-225	466778.36	982312.36	4
IRA-10-100	Carefree Village MHP	55-561743	58336	Perched	Monitoring	2305.87	81.5-101.5	467078.57	983435.42	4
IRA-10-230	Carefree Village MHP	55-561744	58228	Regional	Monitoring	2305.61	145-225	467063.25	983435.66	4
IRA-11-70	Friedman Recycling	55-586372	61487	Perched	Monitoring	2293.63	58-68	466321.26	981573.55	2
IRA-11-210	Friedman Recycling	55-586372	61486	Regional	Monitoring	2293.84	150-210	466320.94	981573.19	4
IRA-12-70	R. E. Darling	55-586370	61485	Perched	Monitoring	2286.31	60-70	465322.58	981394.72	2
IRA-12-210	R. E. Darling	55-586370	61484	Regional	Monitoring	2286.52	140-210	465322.77	981394.78	4
IRA-13-70	City of Tucson	55-586430		Perched	Monitoring	2303.81	64-74	466337.45	982715.06	2
IRA-13-210	City of Tucson	55-586430	61507	Regional	Monitoring	2304.33	150-210	466337.45	982715.06	4
IRA-14 (1)	A Family Discount Storage	55-586502	61603	Regional	Monitoring	2297.55	160-170	466075.90	982145.82	4
IRA-14 (2)	A Family Discount Storage	55-586502	61604	Regional	Monitoring	2297.55	190-200	466075.90	982145.82	4
IRA-14 (3)	A Family Discount Storage	55-586502	61605	Regional	Monitoring	2297.55	230-240	466075.90	982145.82	4
IRA-14 (4)	A Family Discount Storage	55-586502	61606	Regional	Monitoring	2297.55	260-270	466075.90	982145.82	4
IRA-14 (5)	A Family Discount Storage	55-586502	61607	Regional	Monitoring	2297.55	290-300	466075.90	982145.82	4
IRA-15	A Family Discount Storage	55-586501	61483	Perched	Monitoring	2296.62	91-101	466064.94	982161.29	4
IRA-16	R. E. Darling	55-586371	61482	Perched	Monitoring	2293.00	66-76	465202.52	981861.01	4
IRA-17	R. E. Darling	55-596077	61481	Perched	Monitoring	2290.26	65-75	465561.90	981852.96	4
IRA-18	R. E. Darling	55-596078	61480	Perched	Monitoring	2292.96	65.5-75.5	465412.72	981861.01	4
IRA-19	R. E. Darling	55-596079	61479	Perched	Monitoring	2293.49	62-72	465021.60	982188.58	4
IRA-20	R. E. Darling	55-596080	61478	Perched	Monitoring	2295.79	75-85	465267.91	982151.39	4
IRA-21	R. E. Darling	55-596081	61477	Perched	Monitoring	2288.03	63.5-73.5	465493.46	981664.12	4
IRA-22	R. E. Darling	55-596082	61476	Perched	Monitoring	2288.79	61-71	464988.27	981789.09	4
IRA-23	Abrams Airborne	55-596075	61475	Perched	Monitoring	2291.92	69.5-79.5	464704.26	982201.33	4

Table 1 Well Information
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	Property Location/Facility Name	ADWR Registry Number	ADEQ #	Aquifer Zone	Well Use	Top of Casing Elevation (ft amsl)	Screen Interval (feet BTOC)	Northing (ft)	Easting (ft)	Casing Diameter (inches)
IRA-24	ROW near La Cholla and Wetmore	55-900260	61601	Regional	Monitoring	2283.27	168-218	469449.51	979538.47	4
IRA-25	ROW adjacent to 4355 N. Romero	55-596369	61602	Regional	Monitoring	2303.88	170-240	468886.44	982168.08	4
IRA-26	Homer Davis Elementary School	55-596372	61603	Regional	Monitoring	2309.74	170-240	468364.93	983485.48	4
IRA-27	Abrams Airborne	55-900481	67119	Perched	Monitoring	2282.49	55.5-65.5	464966.71	981252.96	4
IRA-28	Abrams Airborne	55-900480		Perched	Monitoring	2286.12	56-66	464856.37	981404.29	4
IRA-29	Abrams Airborne	55-900479	67116	Perched	Monitoring	2286.12	56.5-66.5	464726.17	981614.50	4
IRA-30	Abrams Airborne	55-900478	67117	Perched	Monitoring	2290.02	59-69	464727.08	981931.33	4
IRA-31	Spring Joint Specialists	55-900477	67118	Regional	Monitoring	2291.13	159-209	464727.01	981931.30	4
IRA-32	ROW adjacent to 4522 N. Pomona	55-913097	78081	Regional	Monitoring	2293.96	180-230	470189.11	983489.19	4.25
IRA-33	ROW adjacent to 4522 N. Pomona	55-913098	78082	Regional	Monitoring	2292.65	269-289, 309-329, 339-349	470204.35	983488.59	4.25
IRA-34	ROW adjacent to 1318 W. Wetmore	55-913095	78083	Regional	Monitoring	2297.85	180-229	469404.20	985125.05	4.25
IRA-35	ROW adjacent to 1318 W. Wetmore	55-913096	78084	Regional	Monitoring	2298.2	297-347	469404.14	985136.14	4.25
IRA-36	ROW adjacent to 4508 N. Hansa	55-913099	78085	Regional	Monitoring	2291.18	180-210, 220-240	469974.28	980813.16	4.25
IRA-37	ROW adjacent to 4508 N. Hansa	55-913100	78086	Regional	Monitoring	2291.28	275-285, 295-315, 335-355	469974.35	980823.42	4.25
IRA-38	ROW adjacent to 4671 N. Brightside Dr.	55-915343		Regional	Monitoring	2279.27	175-225	NA	NA	4.0
IRA-39	ROW adjacent to 1941 W. Paseo Reforma Rd.	55-915344		Regional	Monitoring	2294.86	185-235	NA	NA	4
IRA-40	Friedman Recycling	55-915427		Perched	Monitoring	2295.31	70-90	NA	NA	4
IRA-41	A Family Discount Storage	55-915428		Regional	Monitoring	2296.63	350-400	NA	NA	4
SJ-MW-1	Spring Joint Specialists	55-201667		Perched	Monitoring	2293.88	61-71	464549.05	982367.36	4
SJ-MW-2	Spring Joint Specialists	55-201668	67120	Perched	Monitoring	2293.5	64-74	464606.35	982313.95	4
SJ-MW-3	Spring Joint Specialists	55-201669	67121	Perched	Monitoring	2294.25	84-94	464630.79	982479.48	4
FWID-70	4132 N. Romero	55-626040		Regional	Municipal	2307.6	450-800	NA	NA	12
FWID-75	1602 W. Roger	55-626035		Regional	Municipal	2308.06	134-687	NA	NA	20
SLM-545A	City of Tucson	NA		Regional	Monitoring		NA	NA	NA	NA
Villa Capri	Villa Capri	55-616505	36092	Regional	Domestic		NA	NA	NA	NA

Notes:

Perched Zone Well

ADEQ - Arizona Department of Environmental Quality

ADEQ# - ADEQ Database Well Number

ADWR Registry ID - ADWR Well Registration Number

amsl - above mean sea level

BTOC - below top of casing

ft - feet

ID - identification

Table 2 Groundwater Elevation Summary - March 2015
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADWR Well Registry #	ADEQ #	Aquifer Zone	Screen Interval (ft BTOC)	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC) March 2014	Water Level Elevation (ft amsl) March 2014	Notes
IRA-1	55-529841	57689	R	130-210	03/19/15	10:23	2283.28	168.42	2114.86	
IRA-2	55-529840	57690	R	150-230	03/19/15	11:38	2295.99	184.11	2111.88	
IRA-3	55-529842	57692	R	150-240	03/19/15	9:30	2305.3	187.02	2118.28	
IRA-4	55-529843	57685	R	130-220	03/19/15	9:50	2292.45	168.30	2124.15	
IRA-5	55-530831	58234	R	130-210	03/12/15	13:25	2277.8	171.80	2106.00	
IRA-6	55-547953	57686	R	138-203	03/19/15	11:18	2290.98	177.63	2113.35	
IRA-7	55-547954	57688	R	138-203	03/19/15	10:08	2289.88	176.52	2113.36	
IRA-8	55-557128	57687	R	140-200	03/19/15	10:45	2293.19	179.57	2113.62	
IRA-9	55-562355	58229	R	145-225	03/19/15	12:14	2301.97	191.95	2110.02	
IRA-10-100	55-561743	58336	P	81.5-101.5	03/12/15	12:17	2305.87	99.90	2205.97	
IRA-10-230	55-561744	58228	R	145-225	03/19/15	12:43	2305.61	193.52	2112.09	
IRA-11-70	55-586372	61487	P	58-68	03/13/15	13:05	2293.63	68.39	2225.24	
IRA-11-210	55-586372	61486	R	150-210	03/19/15	12:02	2293.84	182.58	2111.26	
IRA-12-70	55-586370	61485	P	60-70	03/11/15	15:35	2286.31	68.50	2217.81	
IRA-12-210	55-586370	61484	R	140-210	03/19/15	11:00	2286.52	173.82	2112.70	
IRA-13-70	55-586430		P	64-74	03/19/15	11:00	2303.81	NM	NM	Dry
IRA-13-210	55-586430	61507	R	150-210	03/19/15	12:30	2304.33	191.47	2112.86	
IRA-14(1)	55-586502	61604	R	160-170	NM	NM	2297.55	NM	NM	Dry
IRA-14(2)	55-586502	61604	R	190-200	NM	NM	2297.55	NM	NM	Didn't have required equipment
IRA-14(3)	55-586502	61605	R	230-240	NM	NM	2297.55	NM	NM	Didn't have required equipment
IRA-14(4)	55-586502	61606	R	260-270	NM	NM	2297.55	NM	NM	Didn't have required equipment
IRA-14(5)	55-586502	61607	R	290-300	NM	NM	2297.55	NM	NM	Didn't have required equipment
IRA-15	55-586501	61483	P	91-101	03/06/15	11:18	2296.62	100.40	2196.22	
IRA-16	55-586371	61482	P	66-76	03/09/15	12:05	2293.00	71.70	2221.30	
IRA-17	55-596077	61481	P	65-75	03/09/15	10:58	2290.26	72.40	2217.86	
IRA-18	55-596078	61480	P	65.5-75.5	03/09/15	10:49	2292.96	75.30	2217.66	
IRA-19	55-596079	61479	P	62-72	03/09/15	13:02	2293.49	71.80	2221.69	
IRA-20	55-596080	61478	P	75-85	03/09/15	10:25	2295.79	85.09	2210.70	
IRA-21	55-596081	61477	P	63.5-73.5	03/09/15	11:30	2288.03	66.42	2221.61	
IRA-22	55-596082	61476	P	61-71	03/09/15	12:30	2288.79	65.61	2223.18	
IRA-23	55-596075	61475	P	69.5-79.5	03/10/15	17:13	2291.92	78.69	2213.23	

Table 2 Groundwater Elevation Summary - March 2015
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADWR Well Registry #	ADEQ #	Aquifer Zone	Screen Interval (ft BTOC)	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft BTOC) March 2014	Water Level Elevation (ft amsl) March 2014	Notes
IRA-24	55-900260	61601	R	168-218	03/19/15	13:35	2283.27	177.60	2105.67	
IRA-25	55-596369	61602	R	170-240	03/19/15	12:57	2303.88	197.38	2106.50	
IRA-26	55-596372	61603	R	170-240	03/19/15	15:15	2309.74	200.50	2109.24	
IRA-27	55-900481	67119	P	55.5-65.5	03/10/15	17:00	2282.49	63.90	2218.59	
IRA-28	55-900480		P	56-66	03/10/15	16:45	2286.12	NM	NM	Dry
IRA-29	55-900479	67116	P	56.5-66.5	03/10/15	15:51	2286.12	63.33	2222.79	
IRA-30	55-900478	67117	P	59-69	03/10/15	14:52	2290.02	64.90	2225.12	
IRA-31	55-900477	67118	R	159-209	03/19/15	10:00	2291.13	177.63	2113.50	
IRA-32	55-913097	78081	R	180-230	03/19/15	14:20	2293.96	186.48	2107.48	
IRA-33	55-913098	78082	R	269-289 309-329 339-349	03/19/15	14:15	2292.65	186.78	2105.87	
IRA-34	55-913095	78083	R	180-229	03/19/15	15:00	2297.85	175.58	2122.27	
IRA-35	55-913096	78084	R	297-347	03/19/15	14:55	2298.2	188.38	2109.82	
IRA-36	55-913099	78085	R	180-210 220-240	03/19/15	13:25	2291.18	187.48	2103.70	
IRA-37	55-913100	78086	R	275-285 295-315 335-355	03/19/15	13:28	2291.28	187.45	2103.83	
IRA-38	55-915343		R	175-225	03/19/15	13:45	2279.27	178.68	2100.59	
IRA-39	55-915344		R	185-235	03/19/15	13:08	2294.86	187.98	2106.88	
IRA-40	55-915427		P	70-90	03/13/15	13:45	2295.31	88.24	2207.07	
IRA-41	55-915428		R	350-400	03/19/15	11:33	2296.63	180.90	2115.73	
SJ-MW-1	55-201667		P	61-71	03/17/15	11:29	2293.88	N/A	N/A	Dry
SJ-MW-2	55-201668	67120	P	64-74	03/17/15	9:45	2293.5	71.78	2221.72	
SJ-MW-3	55-201669	67121	P	84-94	03/17/15	8:55	2294.25	93.53	2200.72	

Notes:

Perched Zone Well

ADWR Registry # - Arizona Department of Water Resources Well Number
ADEQ # - ADEQ assigned groundwater database well number
amsl - above mean sea level
BTOC - below top of casing
ft - feet
ID - identification
N/A - Not Available
NM - Not Measured
P - Perched
R - Regional

Table 3 Summary of Groundwater Analytical Data - March 2015
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	Aquifer Zone	ADEQ #	ADWR Registry ID	Well Use	Screen Interval (ft BTOC)	Lab Sample ID	Property Location/Facility Name	Date Sampled	Total Chromium (µg/L)	Nitrate (mg/L)	TCE (µg/L)	PCE (µg/L)	1,1-DCE (µg/L)	cis-1,2 DCE (µg/L)	EC (µS/cm)	Notes
EPA Method									**200.7**	**300**	**8260B**	**8260B**	**8260B**	**8260B**		
AWQS									**100**	**10**	**5**	**5**	**7**	**70**		
IRA-1	R	57689	55-529841	M	130-210	IRA-1-031215	Abrams Airborne	3/12/2015	20	6.3	1.3	**34**	<0.5	1.5	1301	
IRA-2	R	57690	55-529840	M	150-230	IRA-2-030615	A Family Discount Storage	3/6/2015	17	7.5	1.4	0.43	0.49	<0.5	1490	
IRA-3	R	57692	55-529842	M	150-240	NS	FW High School	NS	NS	NS	NS	NS	NS	NS	NS	Removed from sampling program
IRA-4	R	57685	55-529843	M	130-220	IRA-4-031015	Rio West	3/10/2015	79	15	**6.7**	1.3	2.7	<0.5	2365	
IRA-5	R	58234	55-530831	M	130-210	IRA-5-031215	9-1-1 Collision	3/12/2015	97	7.2	**6.4**	0.61	1.8	<0.5	1658	
IRA-6	R	57686	55-547953	M	138-203	IRA-6-031115	Daring/Fairfax Industrial	3/11/2015	7.6	7.1	1.3	<0.5	1.7	<0.5	1635	
IRA-7	R	57688	55-547954	M	138-203	IRA-7-031215	Desert Refrigeration and Auto Service	3/12/2015	40	8.8	0.64	0.82	<0.5	<0.5	1948	
IRA-8	R	57687	55-557128	M	140-200	IRA-8-031115	Daring/Fairfax Industrial	3/11/2015	**120**	5.7	4.3	<0.5	2	<0.5	1501	
IRA-9	R	58229	55-562355	M	145-225	IRA-9-031615	First Rock 4x4 & Automotive Repair	3/16/2015	71	7.5	3.1	0.84	2.4	<0.5	1454	
IRA-10-100	P	58336	55-561743	M	81.5-101.5	NS	Carefree Village MHP	3/12/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-10-230	R	58228	55-561744	M	145-225	IRA-10-230-031215	Carefree Village MHP	3/12/2015	19	7.1	<0.5	0.56	1.3	<0.5	1495	
IRA-11-70	P	61487	55-586372	M	58-68	NS	Friedman Recycling	3/13/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-11-210	R	61486	55-586372	M	150-210	IRA-11-210-031315	Friedman Recycling	3/13/2015	55	8.5	**53**	0.46	1.5	1.6	1683	
IRA-12-70	P	61487	55-586370	M	60-70	IRA-12-70-031715	R.E. Darling	3/17/2015	15	3.5	**8.6**	<0.5	0.42	<0.5	NR	
IRA-12-70		61487				IRA-12-70-031715 DUP		3/17/2015	43	3.8	**8.5**	<0.5	<0.5	<0.5	NR	Field Duplicate
IRA-12-210	R	61484	55-586370	M	140-210	IRA-12-210-031115	R.E. Darling	3/11/2015	30	**11**	1.6	1.0	1.6	<0.5	2197	
IRA-12-210		61484				IRA-12-210-031115 DUP		3/11/2015	34	**12**	1.6	1.2	1.6	<0.5	2197	Field Duplicate
IRA-13-210	R	61507	55-586430	M	150-210	IRA-13-210-031115	City of Tucson	3/11/2015	20	**12**	1.7	0.56	2.1	<0.5	1861	
IRA-13-210		61507				IRA-13-210-031115 DUP		3/11/2015	20	**12**	1.7	0.62	2.1	<0.5	1861	Field Duplicate
IRA-14 (1)	R	61603	55-586502	M	160-170	NS	A Family Discount Storage	3/18/2015	NS	NS	NS	NS	NS	NS	NS	dry, not sampled
IRA-14 (2)	R	61604	55-586502	M	190-200	IRA-14(2)-031815	A Family Discount Storage	3/18/2015	10	1.9	**8.9**	0.2	0.65	<0.5	NR	FLUTE
IRA-14 (3)	R	61605	55-586502	M	230-240	IRA-14(3)-031815	A Family Discount Storage	3/18/2015	1.5	5.5	0.71	0.35	<0.5	<0.5	NR	FLUTE
IRA-14 (4)	R	61606	55-586502	M	260-270	IRA-14(4)-031815	A Family Discount Storage	3/18/2015	64	0.064	4.3	<0.5	<0.5	1.8	NR	FLUTE
IRA-14 (4)		61606				IRA-14(4)-031815 DUP		3/18/2015	3.5	0.059	3.6	<0.5	<0.5	1.9	NR	FLUTE
IRA-15	P	61483	55-586501	M	91-101	NS	A Family Discount Storage	3/6/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-16	P	61482	55-586371	M	66-76	IRA-16-030915	R. E. Darling	3/9/2015	11	**45**	N/A	N/A	N/A	N/A	NR	
IRA-16	P	61482	55-586371	M	66-76	IRA-16-031715	R. E. Darling	3/17/2015	26	N/A	**500**	0.73	2.3	7.6	NR	
IRA-17	P	61481	55-596077	M	65-75	IRA-17-030915	R. E. Darling	3/9/2015	36	**24**	N/A	N/A	N/A	N/A	NR	
IRA-17	P	61481	55-596077	M	65-75	IRA-17-031715	R. E. Darling	3/17/2015	34	N/A	**500**	<0.5	<0.5	1.1	NR	
IRA-18	P	61480	55-596078	M	65.5-75.5	NS	R. E. Darling	3/9/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-19	P	61479	55-596079	M	62-72	NS	R. E. Darling	3/9/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-20	P	61479	55-596079	M	62-72	NS	R. E. Darling	3/9/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-21	P	61477	55-596081	M	63.5-73.5	IRA-21-030915	R. E. Darling	3/9/2015	7.4	**36**	N/A	N/A	N/A	N/A	NR	
IRA-21	P	61477	55-596081	M	63.5-73.5	IRA-21-031715	R. E. Darling	3/17/2015	16	N/A	**77**	<0.5	0.6	1.3	NR	
IRA-22	P	61476	55-596082	M	61-71	IRA-22-030915	R. E. Darling	3/9/2015	21	**94**	N/A	N/A	N/A	N/A	NR	
IRA-22	P	61476	55-596082	M	61-71	IRA-22-031715	R. E. Darling	3/17/2015	29	N/A	**54**	<0.5	4.5	<0.5	NR	

Table 3 Summary of Groundwater Analytical Data - March 2015
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	Aquifer Zone	ADEQ #	ADWR Registry ID	Well Use	Screen Interval (ft BTOC)	Lab Sample ID	Property Location/Facility Name	Date Sampled	Total Chromium (µg/L)	Nitrate (mg/L)	TCE (µg/L)	PCE (µg/L)	1,1-DCE (µg/L)	cis-1,2 DCE (µg/L)	EC (µS/cm)	Notes
EPA Method									**200.7**	**300**	**8260B**	**8260B**	**8260B**	**8260B**		
AWQS									**100**	**10**	**5**	**5**	**7**	**70**		
IRA-23	P	61475	55-596075	M	69.5-79.5	NS	Abrams Airborne	3/10/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-24	R	61601	55-900260	M	168-218	IRA-24-030515	ROW near La Cholla and Wetmore	3/5/2015	7.6	**13**	0.78	1.8	<0.5	<0.5	2324	
IRA-25	R	61602	55-596369	M	170-240	IRA-25-031115	ROW adjacent to 4355 N. Romero	3/11/2015	57	8.1	4.9	0.7	2.3	<0.5	1558	
IRA-26	R	61603	55-596372	M	170-240	IRA-26-031315	Homer Davis Elementary School	3/13/2015	90	6.2	0.29	0.43	<0.5	<0.5	1138	
IRA-27	P	67119	55-900481	M	55.5-65.5	NS	Abrams Airborne	3/19/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-28	P		55-900480	M	56-66	NS	Abrams Airborne	3/10/2015	NS	NS	NS	NS	NS	NS	NS	dry, not sampled
IRA-29	P	67116	55-900479	M	56.5-66.5	NS	Abrams Airborne	3/10/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
IRA-30	P	67117	55-900478	M	59-69	IRA-30-031815	Abrams Airborne	3/18/2015	5.6	**30**	**71**	<0.5	**7.1**	<0.5	NR	
IRA-31	R	67118	55-900477	M	159-209	NS	Spring Joint Specialists	3/17/2015	NS	NS	NS	NS	NS	NS	NS	Sampling pump inoperable
IRA-32	R	78081	55-913097	M	180-230	IRA-32-031015	ROW adjacent to 4522 N. Pomona	3/10/2015	13	**11**	<0.5	<0.5	<0.5	<0.5	1092	
IRA-33	R	78082	55-913098	M	269-289 299-329	IRA-33-031015	ROW adjacent to 4522 N. Pomona	3/10/2015	1.1	**11**	<0.5	<0.5	<0.5	<0.5	871	
IRA-34	R	78083	55-913095	M	180-229	NS	ROW adjacent to 1318 W. Wetmore		NS	NS	NS	NS	NS	NS	NS	Removed from sampling program
IRA-35	R	78084	55-913096	M	297-347	NS	ROW adjacent to 1318 W. Wetmore		NS	NS	NS	NS	NS	NS	NS	Removed from sampling program
IRA-36	R	78085	55-913099	M	180-210 220-240	IRA-36-030515	ROW adjacent to 4508 N. Hansa	3/5/2015	26	9.2	**13**	0.81	3.6	<0.5	2441	
IRA-37	R	78086	55-913100	M	275-285 305-315	IRA-37-030515	ROW adjacent to 4508 N. Hansa	3/5/2015	1.1	2.6	<0.5	<0.5	0.69	<0.5	1280	
IRA-38	R		55-915343	M	175-225	IRA-38-031015	ROW adjacent to 4671 N. Brightside Dr.	3/10/2015	24	8.6	1.2	<0.5	2.0	<0.5	1279	
IRA-39	R		55-915344	M	185-235	IRA-39-031015	ROW adjacent to 1941 W. Paseo Reforma Rd.	3/10/2015	67	**11**	**22**	4.3	1.4	<0.5	1633	
IRA-40	P		55-915427	M	70-90	IRA-40-031815	Friedman Recycling	3/18/2015	**150**	8.3	**5.4**	0.48	<0.5	<0.5	NR	
IRA-41	R		55-915428	M	350-400	IRA-41-030615	A Family Discount Storage	3/6/2015	2.6	0.71	<0.5	0.42	<0.5	<0.5	1011	
SJ-MW-1	P		55-201667	M	64-74	NS	Spring Joint Specialists	3/17/2015	NS	NS	NS	NS	NS	NS	NS	dry, not sampled
SJ-MW-2	P	67120	55-201668	M	64-74	SJ-MW-2-031715	Spring Joint Specialists	3/17/2015	**76000**	**31**	**89**	<0.5	<0.5	3.8	NR	
SJ-MW-3	P	67121	55-201669	M	64-74	NS	Spring Joint Specialists	3/17/2015	NS	NS	NS	NS	NS	NS	NS	insufficient water, not sampled
FWID-70	R		55-626040	MU	NA	NS	4132 N. Romero	3/17/2015	NS	NS	NS	NS	NS	NS	NS	off-line for maintenance
FWID-75	R		55-626035	MU	NA	NS	1602 W. Roger	3/17/2015	NS	NS	NS	NS	NS	NS	NS	off-line for maintenance
Villa Capri	R	36092	55-616505	D	NA	VillaCapri-031615	Villa Capri	3/16/2015	0.7	6.5	<0.5	<0.5	<0.5	<0.5	NR	SPIGOT

Notes:

Exceeds Aquifer Water Quality Standard (AWQS)
Perched Zone Well
ADEQ# - ADEQ Database Well Number
ADWR Registry ID - ADWR Well Registration Number
BTOC - below top of casing

DCE - Dichloroethene
D - Domestic
EC - Electroconductivity is microsiemens per cm (µs/cm)
FLUTE - Flexible Liner Underground Technology well
ID - Identification

mg/L - milligram per liter
M - Monitoring
µg/L - microgram per liter
N/A - Not Analyzed
NR = Not Recorded

P - Perched
PCE - Tetrachloroethene
R - Regional
TCE - Trichloroethene
MU - Municipal

NS - Not Sampled

Table 4 Perched Groundwater TCE, Cr, and Nitrate Trends
Miracle Mile WQARF Site, Tucson, Arizona

Well	Date[1]	TCE (5.0) (µg/L)[2]			Cr (100) (µg/L)[2]			Nitrate (10) (mg/L)[2]		
SJ-MW-2		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**97**	**89**	-8%	**78,000**	**76,000**	-3%	**29**	**31**	7%
	2011	**123**			NS			NS		
	2014	**97**			**78,000**			**29**		
	2015	**89**			**76,000**			**31**		
	Trend	Decreasing, above AWQS			Decreasing, above AWQS			Above AWQS		
IRA-12-70		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**13**	**8.6**	-34%	<10	15	NC[3]	NS	3.5	NC
	2011	**17.2**			<10			NS		
	2014	**13**			<10			NS		
	2015	**8.6**			15			3.5		
	Trend	Decreasing, above AWQS			Below AWQS			Below AWQS		
IRA-16		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**450**	**500**	11%	12	11	-8%	**40**	**45**	13%
	2011	**446**			<10			NS		
	2014	**450**			12			**40**		
	2015	**500**			11			**45**		
	Trend	Consistent, above AWQS			Below AWQS			Increasing, above AWQS		
IRA-17		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**480**	**500**	4%	64	36	-44%	**35**	**24**	-31%
	2011	**547**			<10			NS		
	2014	**480**			64			**35**		
	2015	**500**			36			**24**		
	Trend	Consistent, above AWQS			Below AWQS			Above AWQS		
IRA-21		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**73**	**77**	5%	10	7.4	-26%	**34**	**36**	6%
	2011	**54.4**			<10			NS		
	2014	**73**			10			**34**		
	2015	**77**			7.4			**36**		
	Trend	Increasing, above AWQS			Below AWQS			Consistent, above AWQS		
IRA-22		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**74**	**54**	-27%	30	21	-30%	**86**	**94**	9%
	2011	**48.2**			20.1			NS		
	2014	**74**			30			**86**		
	2015	**54**			21			**94**		
	Trend	Consistent, above AWQS			Below AWQS			Consistent, above AWQS		
IRA-30		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**130**	**71**	-45%	<10	5.6	NC	**24**	**30**	25%
	2011	**133**			<10			NS		
	2014	**130**			<10			**24**		
	2015	**71**			5.6			**30**		
	Trend	Decreasing, above AWQS			Below AWQS			Above AWQS		
IRA-40		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	3.8	**5.4**	42%	83	**150**	81%	7.1	8.3	17%
	2011	NS			NS			NS		
	2014	3.8			83			7.1		
	2015	**5.4**			**150**			8.3		
	Trend	Increasing, above AWQS			Increasing, above AWQS			Below AWQS		

Notes:

[1] Date indicates sample collection date during the reporting period. Overall shows range of concentrations from the 2011 sample.

[2] TCE and Cr Results are presented in micrograms per liter (µg/L) and nitrate in milligrams per liter (mg/l). AWQS shown in ().

[3] Change not calculated (NC) either due to a sample being non-detect for compound or well was not sampled (NS)

Bold and shaded indicates the AWQS was exceeded.

% - percent

µg/L - micrograms per liter

AWQS - Arizona Water Quality Standard

Cr - Total Chromium

mg/L - milligrams per liter

TCE - tricholoroethene

Table 5
Regional Groundwater TCE, Cr, and Nitrate Trends
Miracle Mile WQARF Site, Tucson, Arizona

Well	Date[1]	TCE (5.0) (µg/L)[2]			Cr (100) (µg/L)[2]			Nitrate (10) (mg/L)[2]		
IRA-5		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**8.2**	**6.4**	-22%	89	97	9%	5.7	7.2	26%
	2011	4.49			15.1			NS		
	2014	**8.2**			89			5.7		
	2015	**6.4**			97			7.2		
	Trend	Above AWQS			Increasing, below AWQS			Increasing, below AWQS		
IRA-8		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**6.4**	4.3	-33%	**220**	**120**	-45%	5.3	3.5	-34%
	2011	**13.5**			**487**			NS		
	2014	**6.4**			**220**			5.3		
	2015	4.3			**120**			3.5		
	Trend	Decreasing			Decreasing, above AWQS			Below AWQS		
IRA-11-210		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**97**	**53**	-45%	**110**	55	-50%	7.3	8.5	16%
	2011	**97.6**			86			NS		
	2014	**97**			**110**			7.3		
	2015	**53**			55			8.5		
	Trend	Decreasing, above AWQS			Below AWQS			Increasing, below AWQS		
IRA-12-210		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	1.3	1.6	23%	**250**	30	-88%	NS	**11**	NC[3]
	2011	1.61			11.7			NS		
	2014	1.3			**250**			NS		
	2015	1.6			30			**11**		
	Trend	Below AWQS			Below AWQS			Increasing, above AWQS		
IRA-24		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	<1.0	0.78	NC	<10	7.6	NC	9.3	**13**	40%
	2011	<0.5			<10			NS		
	2014	<1.0			<10			9.3		
	2015	0.78			7.6			**13**		
	Trend	Below AWQS			Below AWQS			Increasing, above AWQS		
IRA-25		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**6.4**	4.9	-23%	35	57	63%	7.5	8.1	8%
	2011	**17.3**			17.9			NS		
	2014	**6.4**			35			7.5		
	2015	4.9			57			8.1		
	Trend	Decreasing			Increasing, Below AWQS			Below AWQS		
IRA-36		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**20**	**13**	-35%	36	26	-28%	7.5	9.2	23%
	2011	**8.32**			11.1			NS		
	2014	**20**			36			7.5		
	2015	**13**			26			9.2		
	Trend	Increasing, above AWQS			Below AWQS			Increasing, Below AWQS		
IRA-39		2014	2015	Change	2014	2015	Change	2014	2015	Change
	Overall	**7.2**	**22**	206%	28	67	139%	9	**11**	22%
	2011	NS			NS			NS		
	2014	**7.2**			28			9		
	2015	**22**			67			**11**		
	Trend	Increasing, above AWQS			Increasing, below AWQS			Above AWQS		

Notes:

[1] Date indicates sample collection date during the reporting period. Overall shows range of concentrations from the 2011 sample.

[2] TCE and Cr Results are presented in micrograms per liter (µg/L) and nitrate in milligrams per liter (mg/l). AWQS shown in ().

[3] Change not calculated (NC) either due to a sample being non-detect for compound or well was not sampled (NS)

Bold and shaded indicates the AWQS was exceeded.

% - percent

µg/L - micrograms per liter

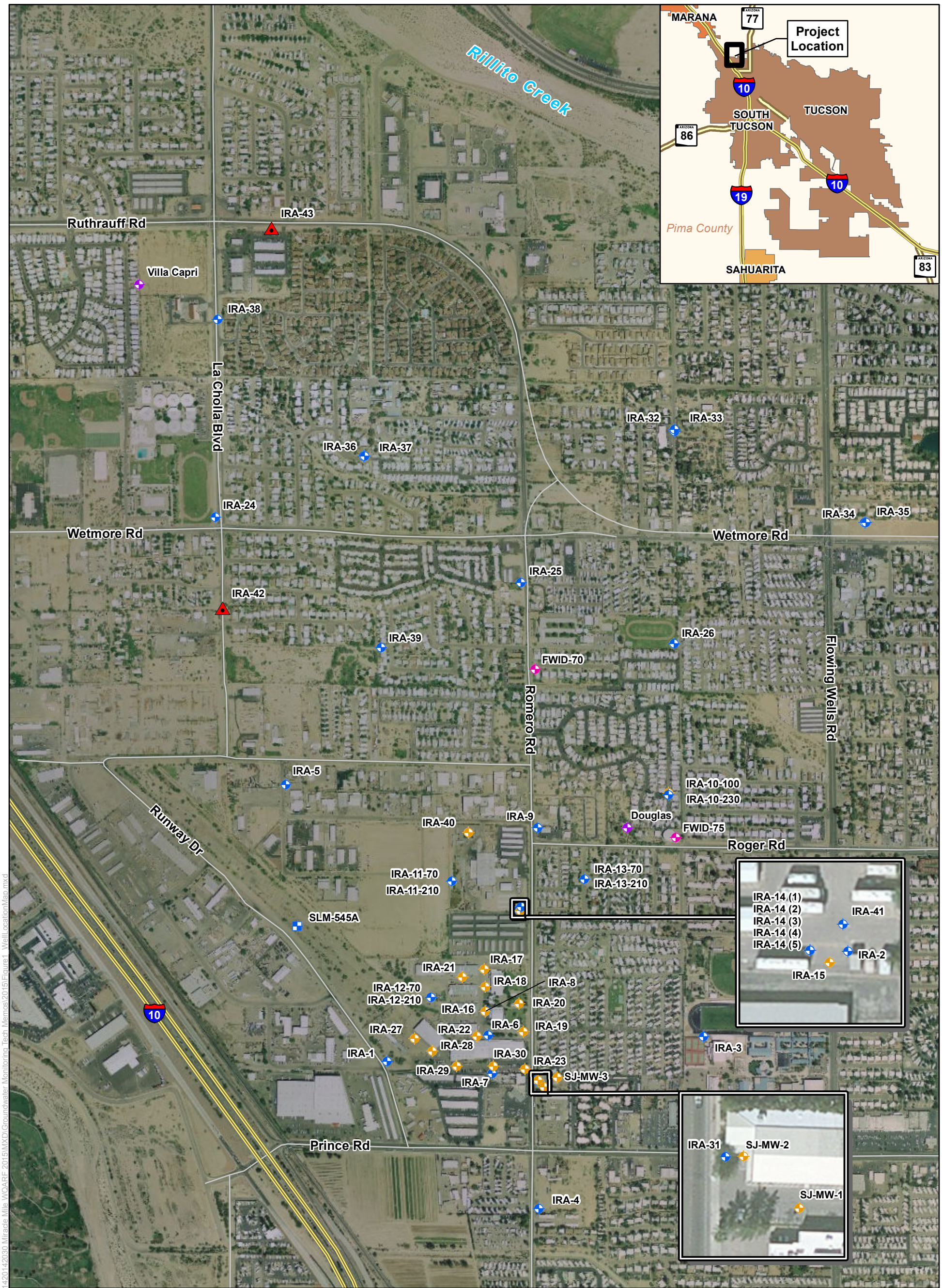
AWQS - Arizona Water Quality Standard

Cr - Total Chromium

mg/L - milligrams per liter

TCE - tricholoroethene

FIGURES



Legend

- Planned Regional Groundwater Monitoring Well
- Regional Groundwater Monitoring Well
- Perched Groundwater Monitoring Well
- City of Tucson Regional Monitoring Well
- Private Water Supply Well
- Water Supply Welll

Notes:

IRA-9 Monitoring Well Identification

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Well Location Map

FIGURE **1**

amec foster wheeler

0 400 800 1,600 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	6/22/2015
Scale:	1" = 800 feet

N

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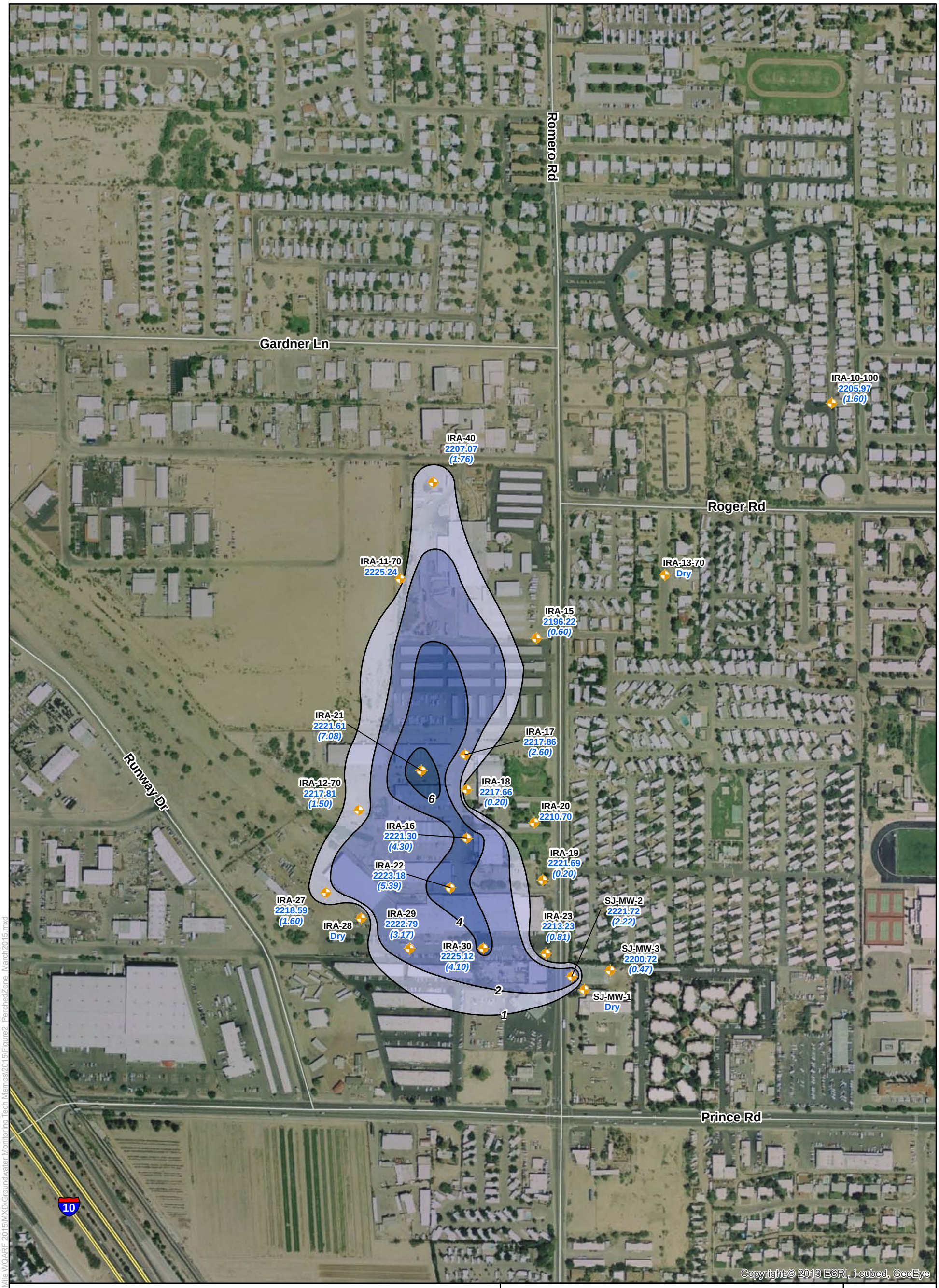
Path: \\PHX4-GIS1\GIS_share\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure1_WellLocationMap.mxd



Legend

Perched Zone Monitoring Well

Thickness of Water Column (ft) in Perched Groundwater Wells

- 1-2 ft
- 2-4 ft
- 4-6 ft
- ≥6 ft

Notes:

IRA-27	Monitoring Well Identification
2218.59	Groundwater Elevation (ft amsl)
(1.60)	Thickness of Water Column in Perched Groundwater (ft) Wells
ft	Feet
ft amsl	Feet above mean sea level

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Perched Water Level and Isopach Thickness Map

FIGURE **2**

amec foster wheeler

0 200 400 800 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	12/22/2015
Scale:	1" = 400 feet

N

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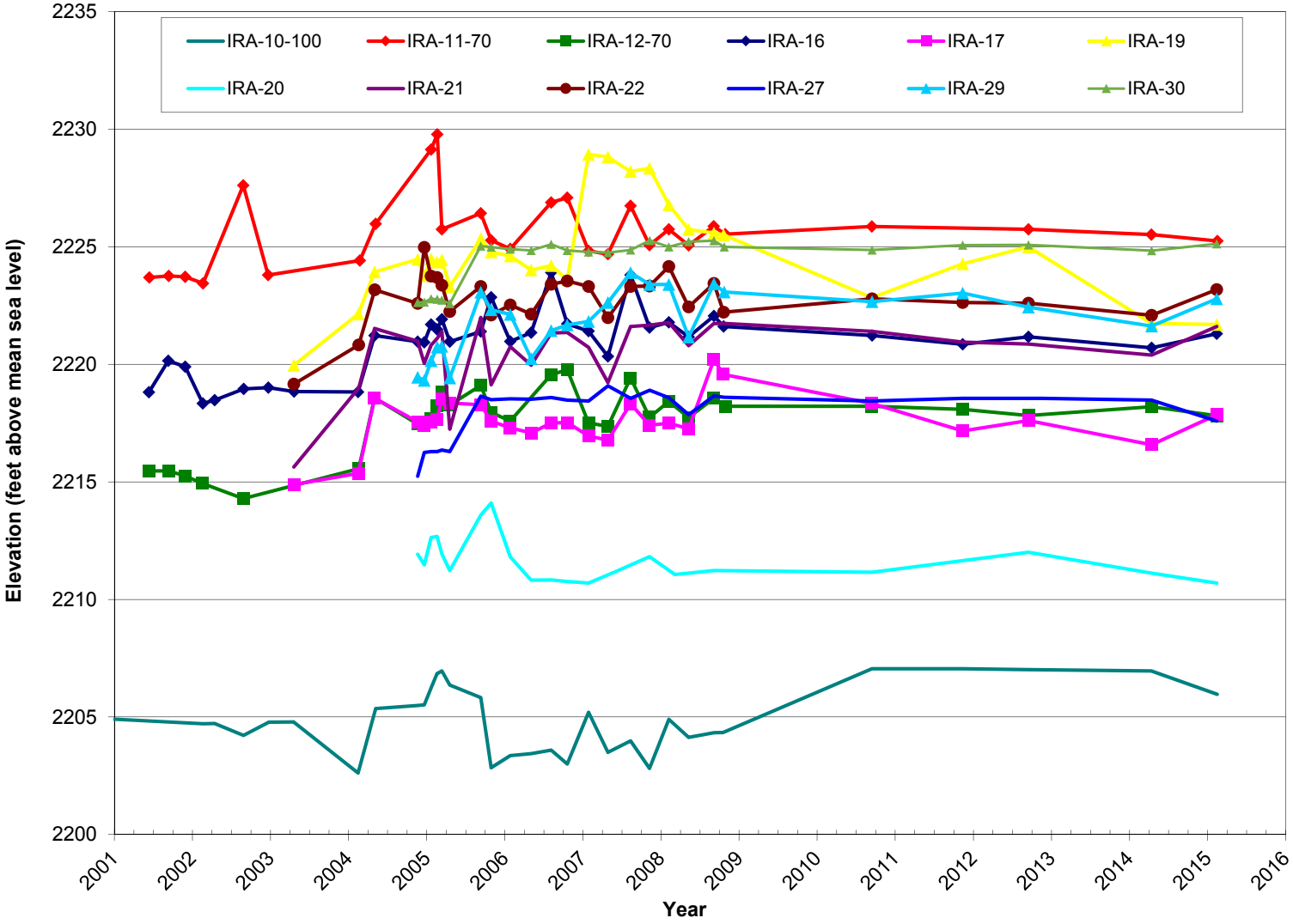
Path: X:\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure2_PerchedZone_March2015.mxd



Job No.:	14-2014-2030
PM:	JC
Date:	6/18/2015
Scale:	Not to Scale

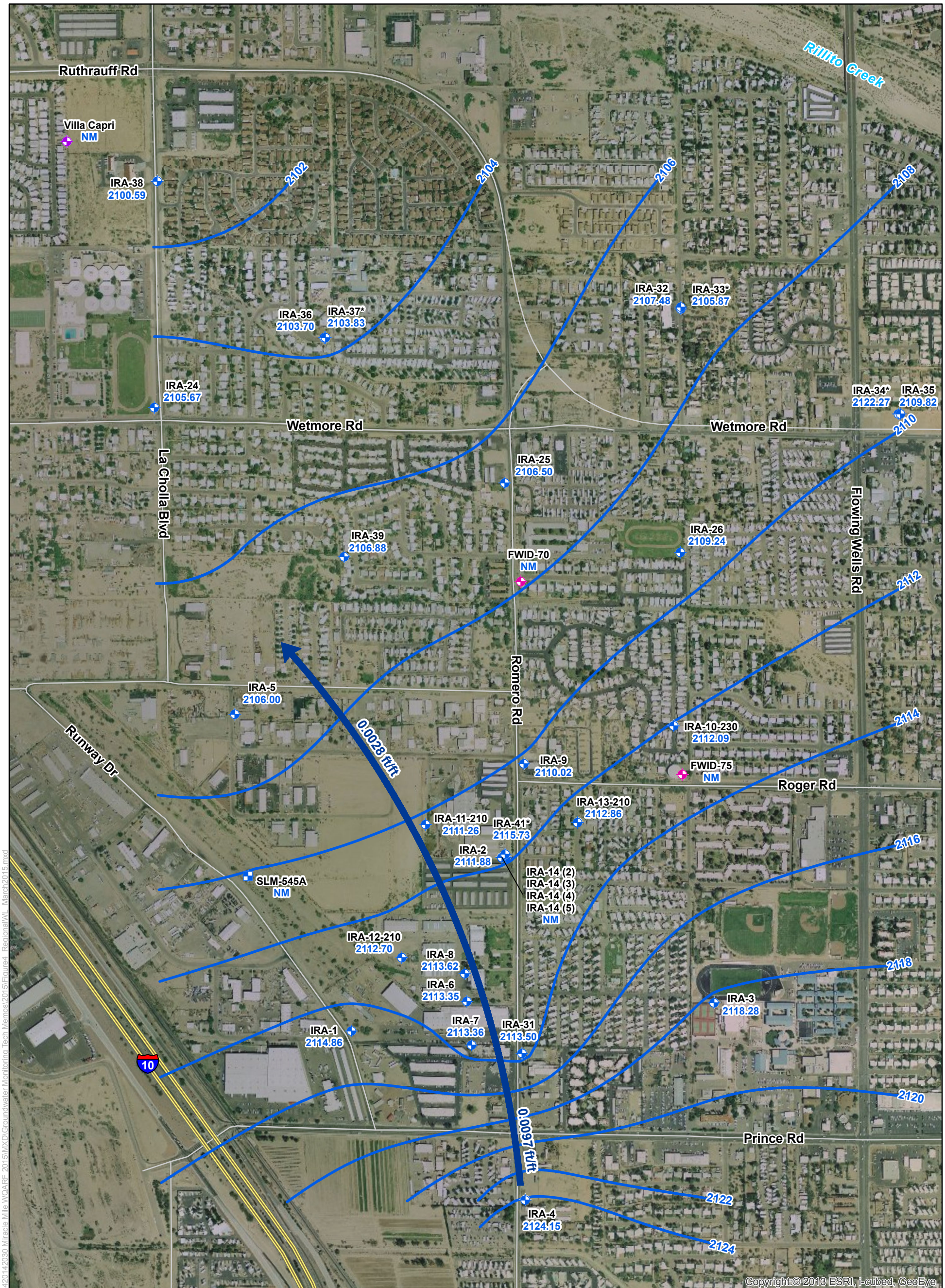
March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Groundwater Elevations in Perched Groundwater Monitoring Wells

FIGURE
3

amec foster wheeler

Path: X:\Projects\2014 Projects\142014 2030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure4_WL_Elevations_Perched.ai



Legend

- Groundwater Elevation Contours (ft amsl) (Contour Interval = 2 ft)
- Regional Groundwater Monitoring Well
- City of Tucson Regional Monitoring Well
- Private Water Supply Well
- Water Supply Welll
- Groundwater Flow Direction with Gradient (ft/ft)

Notes:

IRA-9	Monitoring Well Identification
2110.02	Groundwater Elevation (ft amsl)
*	Not used for contouring
ft	Feet
ft amsl	Feet above mean sea level
NM	Not Measured

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Regional Water Level Contour Map

FIGURE **4**

amec foster wheeler

0 350 700 1,400 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	6/18/2015
Scale:	1" = 400 feet

N

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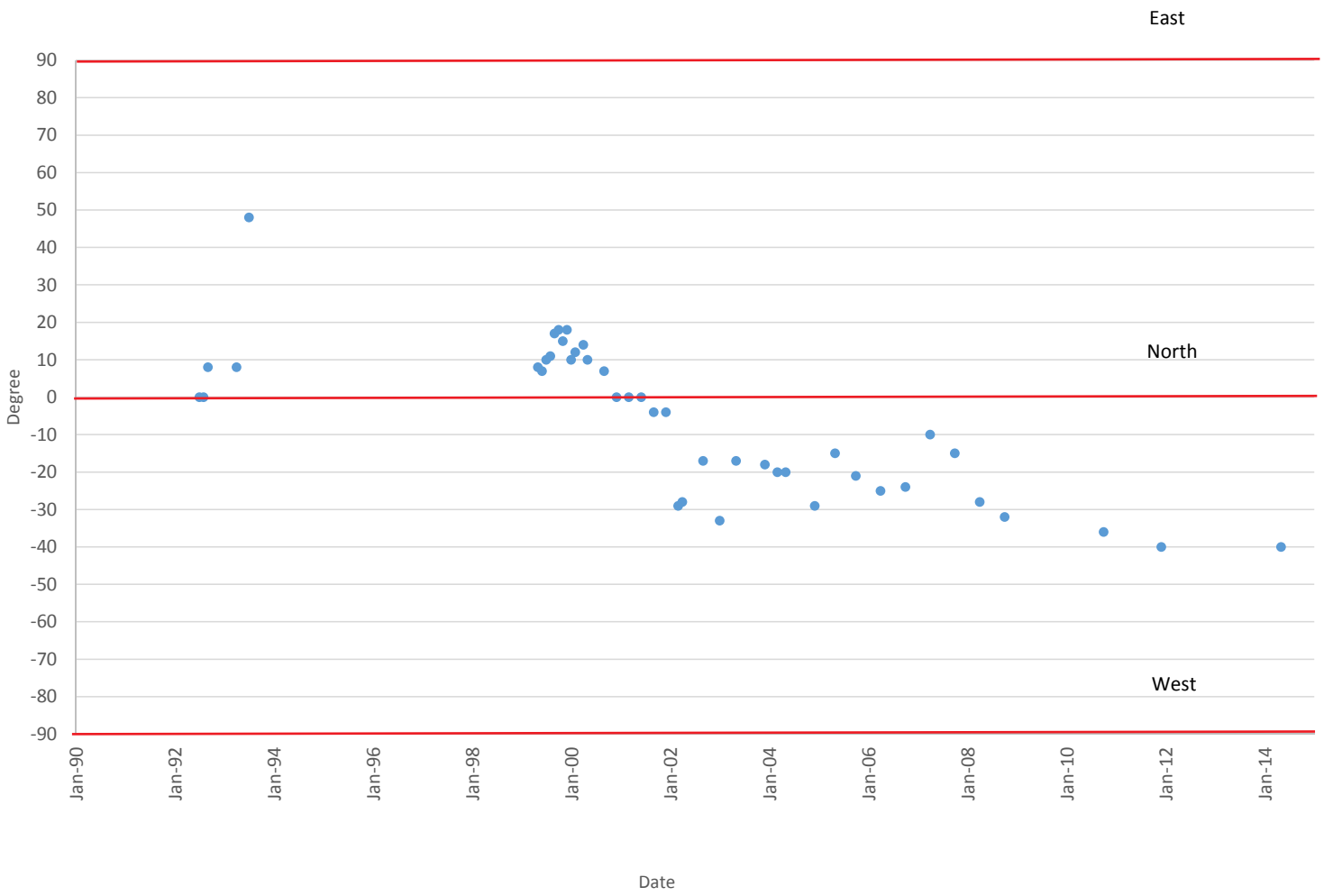
Path: \\PHX4-GIS1\GIS_share\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure4_RegionalWL_March2015.mxd



Job No.:	14-2014-2030
PM:	JC
Date:	6/16/2015
Scale:	Not to Scale

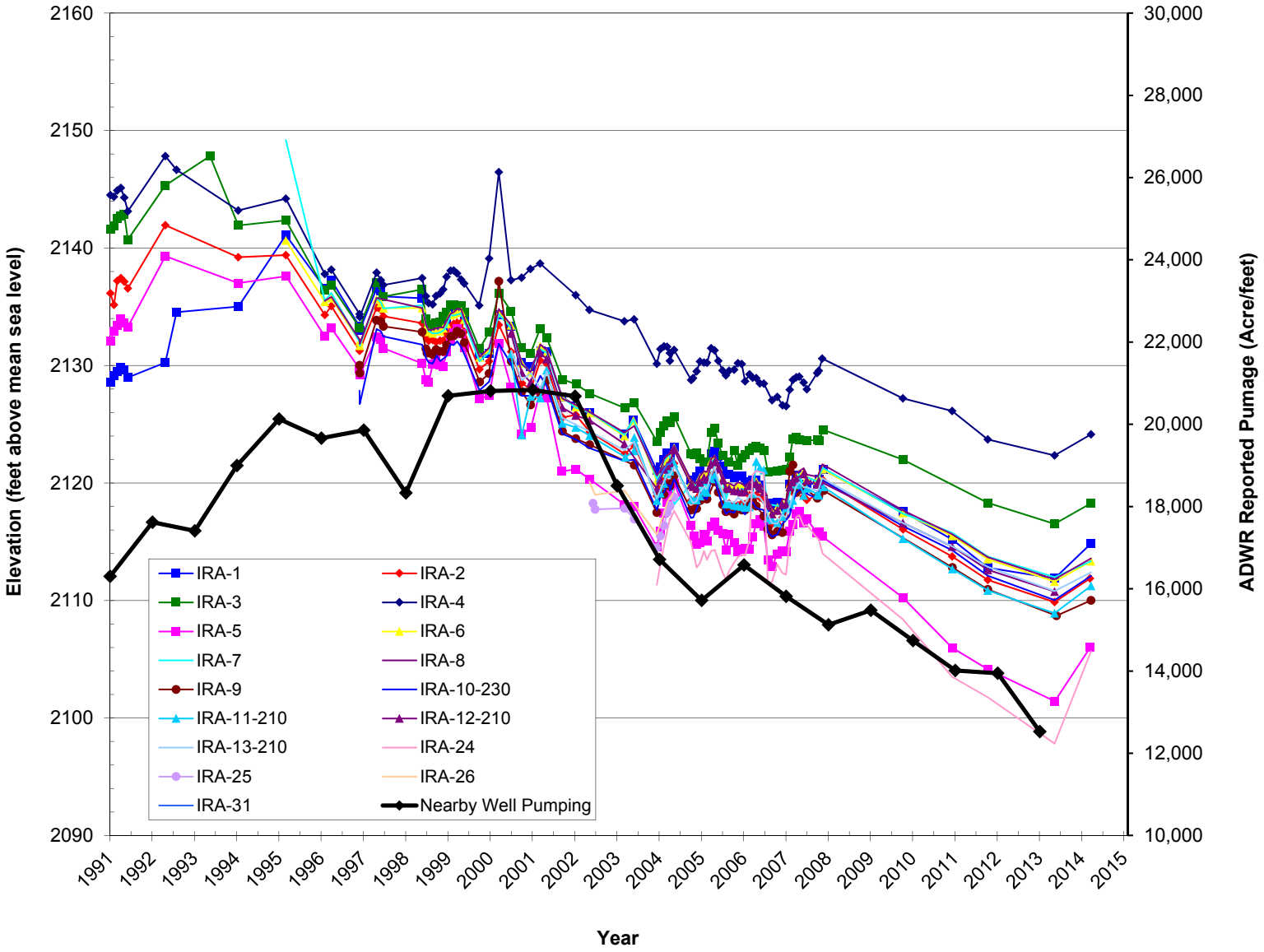
March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Regional Groundwater Historical Flow Direction

FIGURE
5

amec foster wheeler

Path: X:\Projects\2014 Projects\142014 2030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure5_HistoricalFlowDirection_Regional.ai



Job No.:	14-2014-2030
PM:	JC
Date:	6/18/2015
Scale:	Not to Scale

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Groundwater Elevations and Historic Pumping Rates for Regional Groundwater

FIGURE
6

amec foster wheeler

Path: X:\Projects\2014 Projects\142014 2030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure6_WL_Elevations_Regional.ai

Legend

Perched Groundwater Monitoring Well

Notes:

IRA-40	Monitoring Well Identification
5.4	Analytical Result (µg/L) (Results that are **red and bolded** equal or exceed Arizona AWQS of 5 µg/L)
8.6/8.5	Original/Duplicate Results
µg/L	Microgram per liter
AWQS	Aquifer Water Quality Standards
NS	Not Sampled; Insufficient Water
TCE	Trichloroethene

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

TCE Concentrations in Perched Groundwater

FIGURE **7**

amec foster wheeler

0 200 400 800 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	6/19/2015
Scale:	1" = 400 feet

N

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Path: X:\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure7_PerchedGW_TCE_March2015.mxd

Legend

Perched Groundwater Monitoring Well

Notes:

IRA-40	Monitoring Well Identification
150	Analytical Result (µg/L) (Results that are **red and bolded** equal or exceed Arizona AWQS of 100 µg/L)
15/43	Original/Duplicate Results
µg/L	Microgram per liter
AWQS	Aquifer Water Quality Standards
NS	Not Sampled; Insufficient Water

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Total Chromium Concentrations in Perched Groundwater

FIGURE **8**

amec foster wheeler

0 200 400 800 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	6/19/2015
Scale:	1" = 400 feet

N

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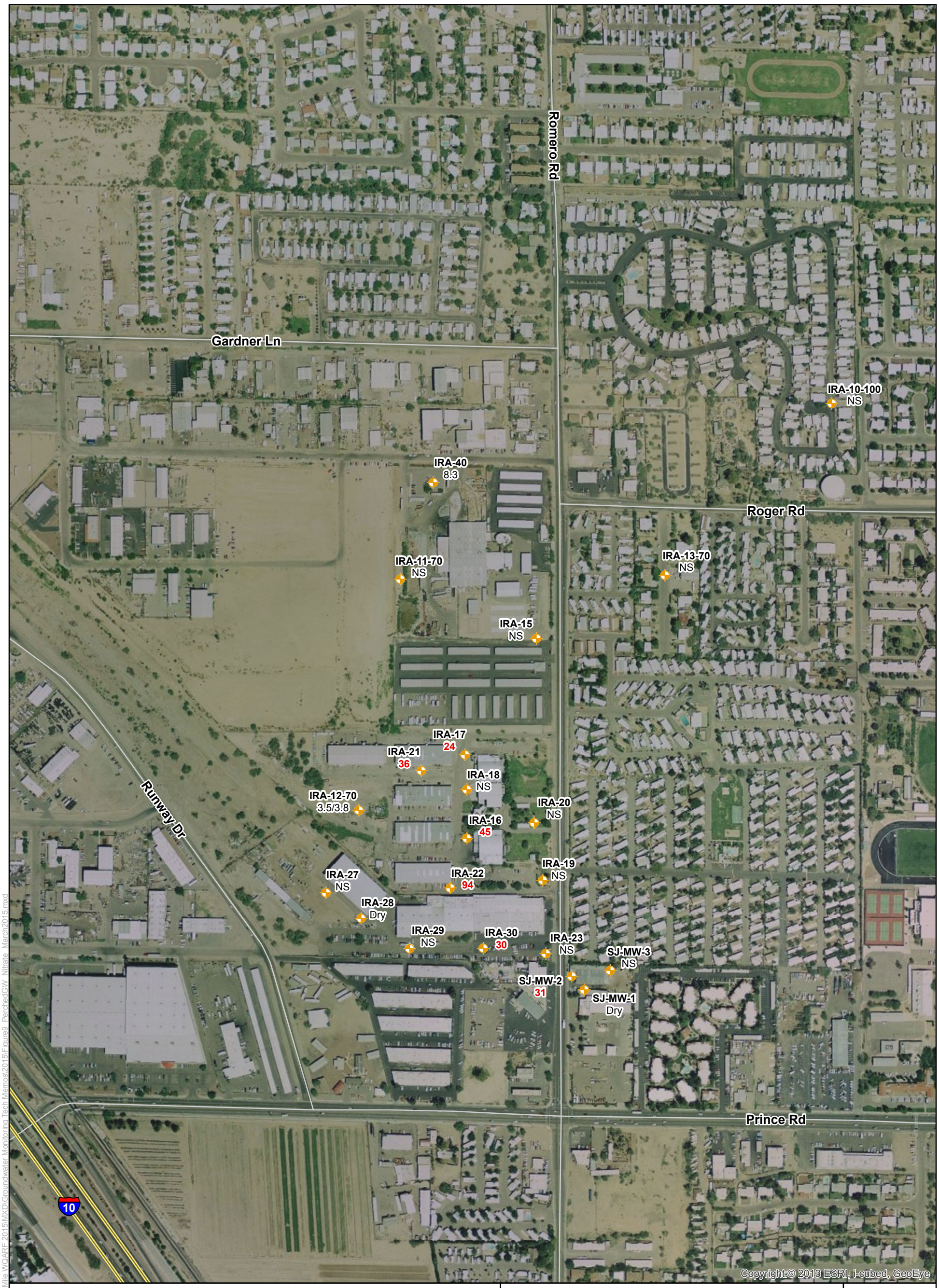
Path: X:\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure8_PerchedGW_Cr_March2015.mxd



Legend

Perched Groundwater Monitoring Well

Notes:

IRA-30	Monitoring Well Identification
30	Analytical Result (mg/L) (Results that are **red and bolded** equal or exceed Arizona AWQS of mg/L)
3.5/3.5	Original/Duplicate Results
AWQS	Aquifer Water Quality Standards
mg/L	Milligram per liter
NS	Not Sampled; Insufficient Water

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Nitrate Concentrations in Perched Groundwater

FIGURE **9**

amec foster wheeler

0 200 400 800 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	6/19/2015
Scale:	1" = 400 feet

N

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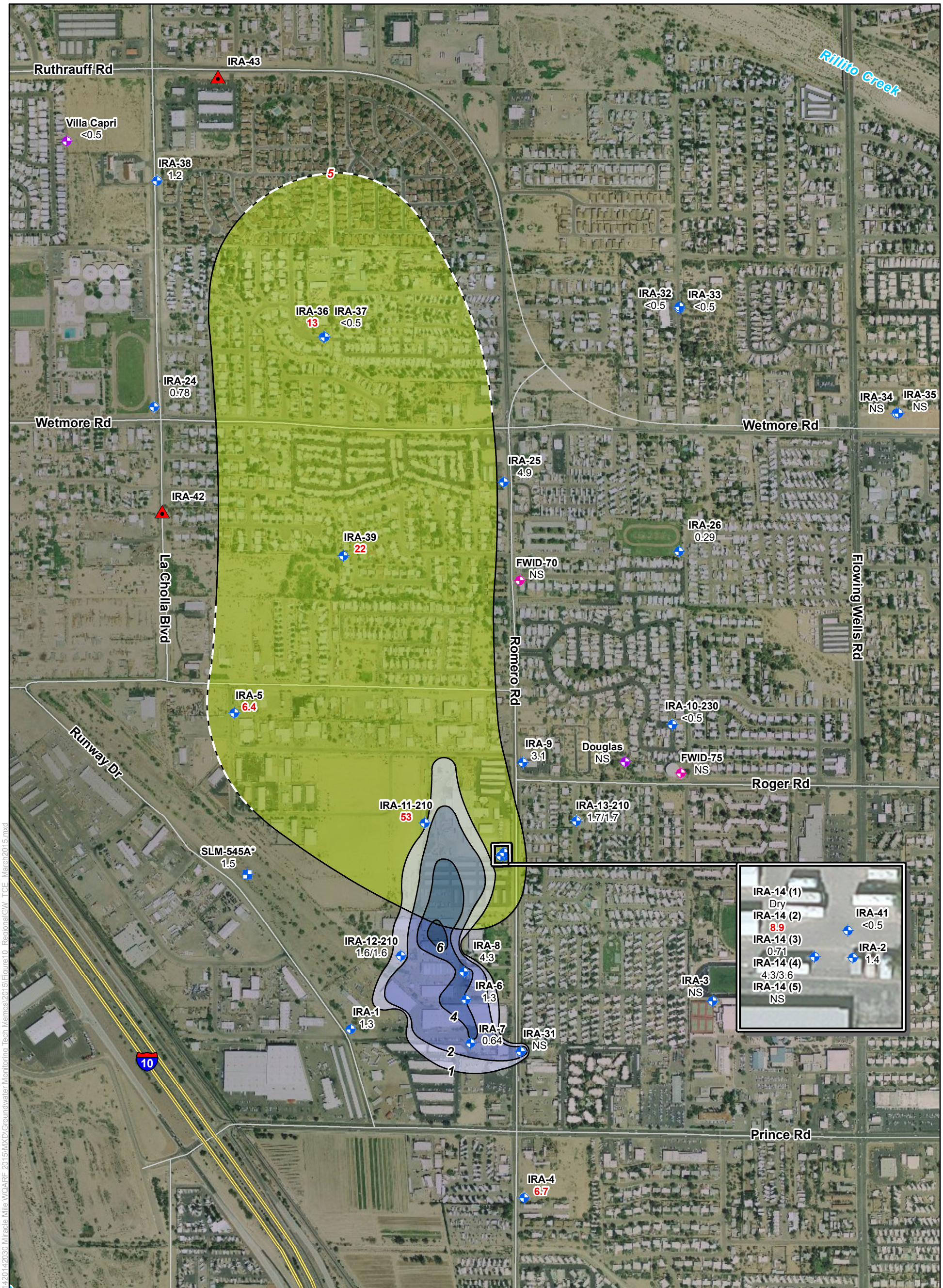

Legend

- TCE Concentrations in Groundwater 5 µg/L (Dashed Where Inferred)
- Planned Regional Groundwater Monitoring Well
- Regional Groundwater Monitoring Well
- City of Tucson Regional Monitoring Well
- Private Water Supply Well
- Water Supply Welll

Thickness of Water Column (ft) in Perched Groundwater Wells

1-2 ft | 2-4 ft | 4-6 ft | ≥6 ft

Notes:

IRA-4	Monitoring Well Identification
6.7	Analytical Result (µg/L) (Results that are **red and bolded** equal or exceed Arizona AWQS of 5 µg/L)
4.3/3.6	Original/Duplicate Results
*	SLM-545A was sampled in April 2015
µg/L	Microgram per liter
AWQS	Aquifer Water Quality Standards
NS	Not Sampled
TCE	Trichloroethene

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

TCE Concentrations in Regional Groundwater

FIGURE **10**

amec foster wheeler

0 350 700 1,400 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	6/22/2015
Scale:	1" = 700 feet

N

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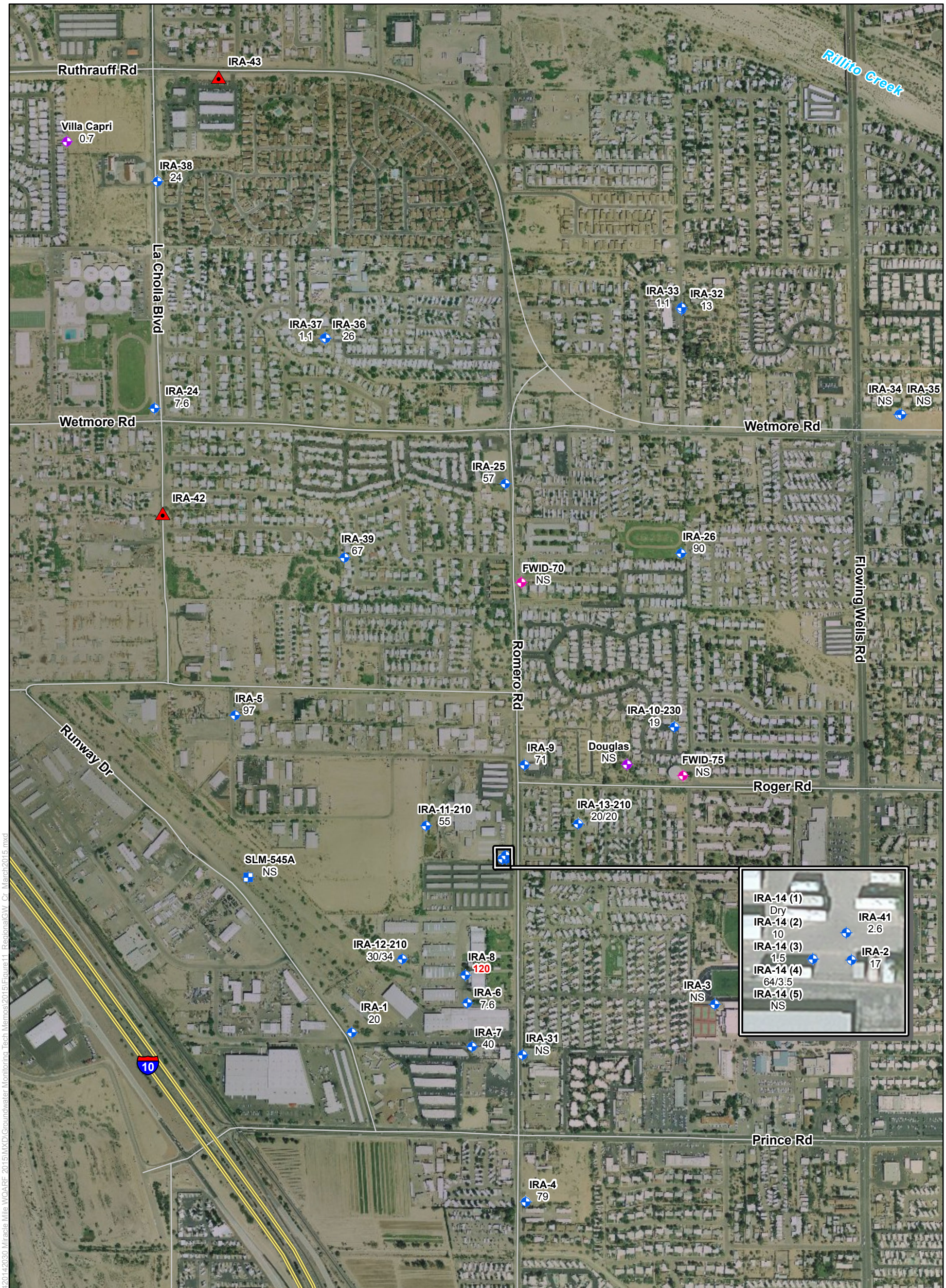
Path: \\PHX4-GIS1\GIS_share\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure10_RegionalGW_TCE_March2015.mxd



Legend

- Planned Regional Groundwater Monitoring Well
- Regional Groundwater Monitoring Well
- City of Tucson Regional Monitoring Well
- Private Water Supply Well
- Water Supply Welll

Notes:

IRA-8	Monitoring Well Identification
120	Analytical Result (µg/L) (Results that are **red and bolded** equal or exceed Arizona AWQS of 100 µg/L)
64/3.5	Original/Duplicate Results
µg/L	Microgram per liter
AWQS	Aquifer Water Quality Standards
NS	Not Sampled

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Total Chromium Concentrations in Regional Groundwater

FIGURE **11**

amec foster wheeler

0 350 700 1,400 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	6/22/2015
Scale:	1" = 700 feet

N

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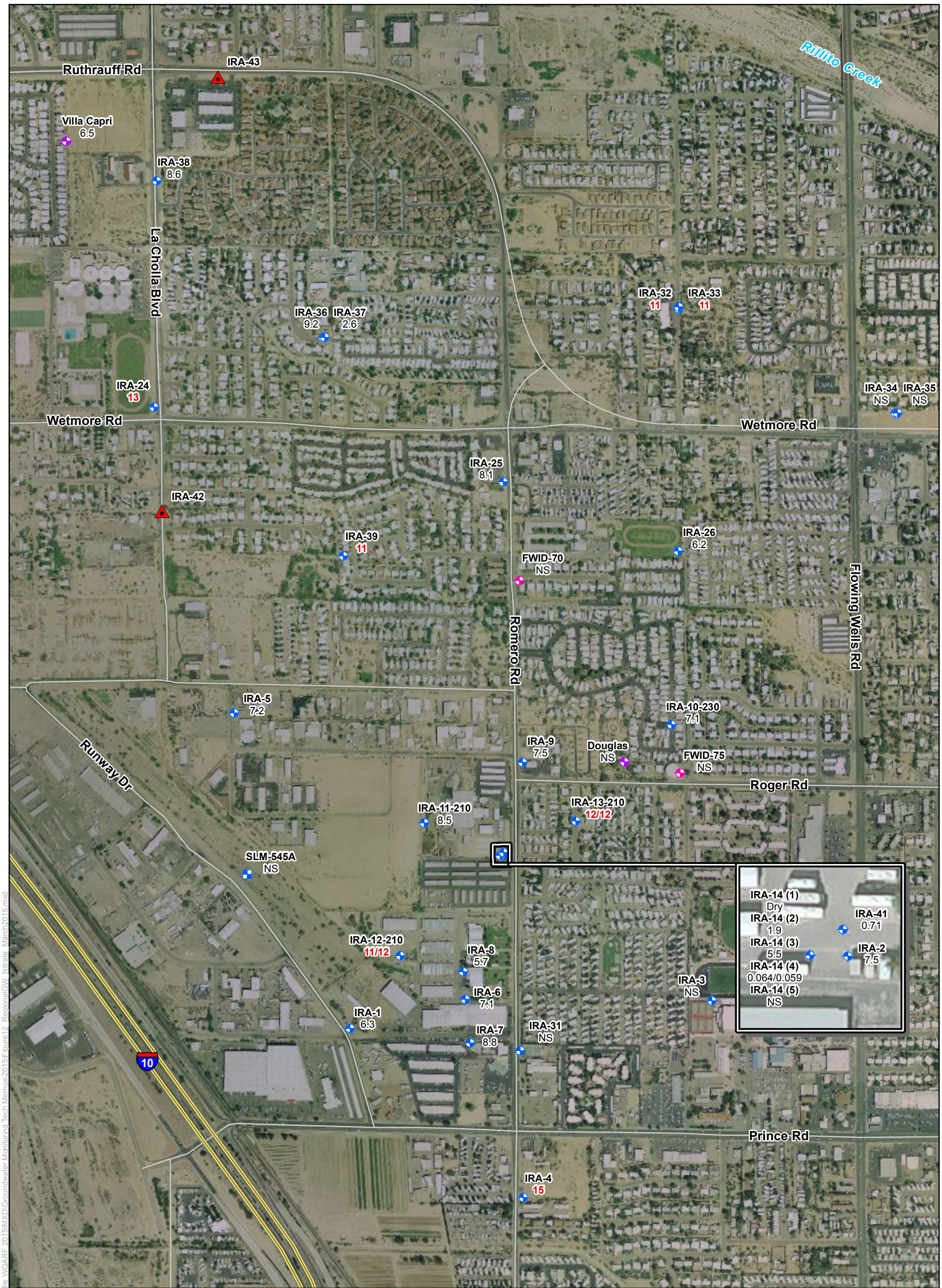
Path: \\PHX4-GIS1\GIS_share\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure11_RegionalGW_Cr_March2015.mxd



Legend

- Planned Regional Groundwater Monitoring Well
- Regional Groundwater Monitoring Well
- City of Tucson Regional Monitoring Well
- Private Water Supply Well
- Water Supply Welll

Notes:

IRA-4	Monitoring Well Identification
15	Analytical Result (mg/L) (Results that are **red and bolded** equal or exceed Arizona AWQS of 10 mg/L)
3.5/3.8	Original/Duplicate Results
AWQS	Aquifer Water Quality Standards
mg/L	Milligram per liter
NS	Not Sampled

March 2015 Groundwater Monitoring Event
Miracle Mile WQARF Site
Tucson, Arizona

Nitrate Concentrations in Regional Groundwater

FIGURE **12**

amec foster wheeler

0 350 700 1,400 Feet

Job No.:	14-2014-2030
PM:	JC
Date:	7/30/2015
Scale:	1" = 700 feet

N

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Path: X:\Projects\2014 Projects\1420142030 Miracle Mile WQARF 2015\MXD\Groundwater Monitoring Tech Memos\2015\Figure12_RegionalGW_Nitrate_March2015.mxd

APPENDIX A

FIELD FORMS AND NOTES

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Miracle Mile	Project Name: Miracle Mile
Type & Model No. Meter:	Date: 3/17/15
Field Personnel: Sargent/Combs	Project Manager/Coordinator:

Instrument Type & ID #: Ysi 556 MPS # 13J100674 unit# 6114 Parameters Measured: Conductivity, pH, Temperature, DO%, ORP

Instrument ID: Hach 2100Q (13000028901) Parameters Measured: Turbidity

Instrument ID: Parameters Measured:

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	pH (10.00)
Expiration Date:	12/5/15	4/11/16	2/3/16
Manufacturer Lot No.:	KCT141205	44048823	2014013065
Date Opened:	2/24/15	9/24/15	9/24/14

%	Initial	Adjusted	Time
DO	106.1	100.5	946
ORP	245	240	950

TURB	Initial	Pass/Fail	Time
NTU 800	803	PASS	921
NTU 100	106	PASS	922
NTU 20	19.9	PASS	923
NTU 10	10.3	PASS	924

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	1327	1413	948
pH (7.00)	7.03	7.00	952
pH (~~10.00~~ 4.01)	4.01	4.01	953

Daily Condition 30.04 inHg 763.01599 mmHg

amec foster wheeler

Signatures

Field Team Leader: Brandon Combs Date: 3/17/15

Reviewer: Samantha Sargent Date: 3/17/15

30.06 in Hg
763.524

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Miracle Mile	Project Name: Miracle Mile
Type & Model No. Meter:	Date: 3/16/15
Field Personnel: Sargent/Combs	Project Manager/Coordinator:

Instrument Type & ID #: YSI556MPS #13J100674 unit# 6014 Parameters Measured: Conductivity, pH, Temperature, DO%, ORP

Instrument ID: Hach 2100Q (1300C028901) Parameters Measured: Turbidity

Instrument ID: Parameters Measured:

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	pH (10.00)
Expiration Date:	12/5/15	4/1/16	2/3/16
Manufacturer Lot No.:	KCT141205	4404823	2014013065
Date Opened:	2/24/15	9/24/14	9/24/14

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	1533	1413	1244
pH (7.00)	6.90	7.00	1249
pH (~~10.00~~ 4.01)	4.01	4.01	1251

	Initial	Adjusted	Time
DO%	84.00	100.3	1239
ORP	232.9	240	1246
TURB NTU 800	797	PASS	1254
NTU 100	96.6	PASS	1255
NTU 20	21.2	PASS	1256
NTU 10	10.7	PASS	1257

amec foster wheeler

Signatures

Field Team Leader: Brandon Combs Date: 3/16/15

Reviewer: Samantha Sargent Date: 3/16/15

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Miracle Mile	Project Name: MiracleMile
Type & Model No. Meter:	Date: 3/13/15
Field Personnel: Sargent / Combs	Project Manager/Coordinator:

Instrument Type & ID #: YSI 556 MPS #13J100674 unit #6114 Parameters Measured: Conductivity, pH, Temperature, DO, ORP

Instrument ID: Hach 2100Q (1308C028901) Parameters Measured: Turbidity

Instrument ID: Parameters Measured:

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	pH (10.00)
Expiration Date:	12/5/15	4/1/16	2/3/16
Manufacturer Lot No.:	KCT141205	4404823	20K013065
Date Opened:	2/24/15	9/24/14	9/24/14

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	1465	1413	0952
pH (7.00)	7.02	7.00	0953
pH (~~10.00~~) 4.01	4.01	4.01	0954

DO	~~97.9~~ 97.9 Initial	~~100.4~~ 100.4 Adjusted	~~0944~~ 0944 Time
ORP	240.5 ~~97.9~~	240.0 ~~100.4~~	0948 ~~0944~~
NTU 800	850	Pass	0955
NTU 100	102	Pass	1000
NTU 20	19.7	Pass	1002
NTU 10	11.1	Pass	1004

~~240.5~~ ~~240.0~~ 0948

amec foster wheeler

Signatures

Field Team Leader: Brandon Combs Date: 3/13/15

Reviewer: Samantha Sargent Date: 3/13/15

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Ripsey Wash	Project Name: MIRACLE MILE
Type & Model No. Meter:	Date: 3/12/15
Field Personnel: Sargent/Combs	Project Manager/Coordinator:

Instrument Type & ID #: YSI 556 MPS #13J100674 unit 10114 Parameters Measured: Conductivity, pH, Temperature, DO %, ORP

Instrument ID: Hach 2100Q (1300C028901) Parameters Measured: Turbidity

Instrument ID: Parameters Measured:

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	pH (10.00)
Expiration Date:	12/5/15	4/1/16	2/3/16
Manufacturer Lot No.:	KCT141205	4404823	2014~~0~~1065
Date Opened:	2/24/15	9/24/14	9/24/14

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	1443	1413	0825
pH (7.00)	6.87	7.00	0827
pH (~~10.00~~ 4.01)	3.98	4.01	0829

	Initial	Adjusted	Time	
DO	1580	100.5	0818	
ORP	232	240	0823	
NTU 800	844	Pass	0818	
NTU 100	103	Pass	0819	
NTU 20	19.9	Pass	0821	
NTU 10	11.0	Pass	0822	

amec foster wheeler

Signatures

Field Team Leader: Brandon Combs Date: 3/12/15

Reviewer: Samantha Sargent Date: 3/12/15

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Miracle Mile	Project Name: Miracle Mile
Type & Model No. Meter:	Date: 3/11/15
Field Personnel: Sargent/Combs	Project Manager/Coordinator: Alang Gu

Instrument Type & ID #: YSI 556MPS #13J100674 unit 6114 Parameters Measured: Conductivity, pH, Temperature, DO%, mg/L, ORP

Instrument ID: Hach 2100Q (13080028701) Parameters Measured: Turbidity

Instrument ID: Parameters Measured:

Daily Conditions 8°C, 765.32 mm Hg

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	pH (10.00)
Expiration Date:	12/5/15	4/1/16	2/3/16
Manufacturer Lot No.:	KCT141205	4404823	2014013065
Date Opened:	2/24/15	9/24/14	9/24/14

	Initial	Adjusted	Time
DO	93.3	100.7	800
ORP	242.1	240	804
TURB			
800	827	Pass	752
100	102	Pass	753
20	19.8	Pass	754
10	10.6	Pass	755

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	1388	1412	807
pH (7.00)	7.22	7.00	810
pH ~~(10.00)~~ (4.01)	4.01	4.01	812

~~Daily Conditions~~

Signatures

Field Team Leader: Brandon Combs Date: 3/11/15

Reviewer: Sam Sargent Date: 3/11/15

29.98 in Hg → 761.49

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Miracle Mile	Project Name: Miracle Mile
Type & Model No. Meter:	Date: 3/10/15
Field Personnel: Combs/Sargent	Project Manager/Coordinator:

Instrument Type & ID #: YSI 556 MPS, Serial #13J100674 unit 6114 Parameters Measured: Conductivity, pH, Temperature, DO%, mg/L, ORP

Instrument ID: HACH 2100Q (13D0C028901) Parameters Measured: Turbidity

Instrument ID: Parameters Measured:

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	pH (~~10.00~~) 4.0
Expiration Date:	12/5/15	4/11/16	2/3/16
Manufacturer Lot No.:	KCT4205	4404823	201403065
Date Opened:	2/24/15	9/24/14	9/24/14

	Initial	Adjusted	Time
DO%	148.7	100.1	1026
ORP	241.3	240	1029

NTU 800	816	pass	1007
NTU 100	102	Pass	1009
NTU 20	20.6	pass	1010
NTU 10	10.6	pass	1011

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	1415	1413	1027
pH (7.00)	6.72	7.00	1031
pH (~~10.00~~) 4.01	3.94	4.01	1033

amec foster wheeler

Signatures

Field Team Leader: Brandon Combs Date: 3/10/15

Reviewer: Samantha Sargent Date: 3/10/15

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Miracle Mile	Project Name: MIRACLE MILE
Type & Model No. Meter:	Date: 3/6/15
Field Personnel:	Project Manager/Coordinator:

Instrument Type & ID #: YSI 556 MPS (13J100674) Parameters Measured: Conductivity, pH, Temperature, DO mg/L, ORP

Instrument ID: HACH 2100Q (13000028901) Parameters Measured: TURBIDITY

Instrument ID: Parameters Measured:

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	4.01 pH ~~(10.00)~~
Expiration Date:	12/5/15	4/1/16	2/3/16
Manufacturer Lot No.:	KCT141205	4404823	201493065
Date Opened:	2/24/15	9/24/14	9/24/14

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	2381	1414	1007
pH (7.00)	7.27	7.00	1012
pH (~~10.00~~ 4.01)	4.13	4.01	1014

	INT	Adj	Time
DO%	133.1	100.2	1002
ORP	248.1	240	1009
NTU 800	828	PASS	0955
NTU 100	101	PASS	0956
NTU 20	20.5	PASS	0958
NTU 10	10.8	PASS	0959

Date:

Date:

Signatures

Field Team Leader: Brandon Combs 3/6/15

Reviewer: Samantha Sargent 3/6/15

FIELD WATER QUALITY METER CALIBRATION FORM

Project: Miracle Mile	Project Name:
Type & Model No. Meter:	Date: 3/5/15
Field Personnel: SARGENT COMBS	Project Manager/Coordinator:

Instrument Type & ID #: YSI 556 MPS (13J100674) Parameters Measured: Conductivity, pH, Temperature

Instrument ID: HACH 2100Q (1300C028901) Parameters Measured: TURBIDITY

Instrument ID: Parameters Measured:

Calibration Solution:	Conductivity (1413 us/cm)	pH (7.00)	pH (~~10.00~~ 4.01)
Expiration Date:	12-5-2015	4-1-2016	2-3-2016
Manufacturer Lot No.:	KCT141205	4404823	20140130645
Date Opened:	2-24-~~15~~	9-24-14	9-24-14

TIME ON: 1045
TEMP °C: 12°C
BARO: 29.99 inHg → 761.75 mmHg

amec foster wheeler

	Initial Reading	Adjusted Reading	Time
Conductivity (1413 us/cm)	701	1412	1143
pH (7.00)	6.94	7.0	1146
pH (~~10.00~~ 4.01)	4.05	4.01	1148
~~DO (mg/L)~~	~~[illegible]~~	~~[illegible]~~	~~1140~~
(%) DO	101.1	100	1140
ORP	~~240~~ 238.8	240	1150

NTU'S	INT	ADJ
800	821	PASSED
100	101	PASSED
20	20.5	PASSED
10	10.6	PASSED

Signatures

Field Team Leader: Brandon Combs Date: 3/5/15

Reviewer: Samantha Sargent Date: 3/5/15

3/5

Well #

IRA-36/37
- good well condition

IRA-24
- good well condition
- access from the north curb on Lacholla. Northeast corner of Lacholla and Wetmore.

IRA-25
- limited space to access the well, have to do it with an extension cord.

IRA-4
- needed an adapter because the well pump was 1½" and not 1".

Test America Tucson
- Closes at 330

IRA-2
sampled/gauge
back of storage place.

IRA 15, 14, 2
SW CORNER OF ROMARO/ROGER. ENTER THROUGH "A FAMILY DISCOUNT STORAGE" ASK FOR GATE CODE. SE CORNER OF PROPERTY. IRA 2 needs 1.5 in CONNECTOR

IRA 36/37 ENTER JAY ST. OF WETMORE. JAY TURNS INTO HANSA COURT. ~~WELL~~

IRA

Rite in the Rain

3/4

- Arrived in Tucson
- Picked up Water Wagon
  - reservation was made for wrong week
- Arrived at IRA-36/37
- Needed tubing and new spouts for sample
- the generator didn't have the right component to attach to well
  - spent the rest of the day trying to find an adapter or a way around the problem

Rite in the Rain

3/6

Well #	IRA-2
IRA 41	good well condition
IRA 15	dry but good condition
IRA 4	good condition
	1 1/4" pump valve

3/9

Well #	
IRA 20	good condition - DRY
IRA 18	good condition - DRY
IRA 17	good condition - Rusty water
IRA 21	good condition -

IRA-20 VOC's, total CR, gen chem
Isotope (O,H) (N,O)

- 1021
  - bailer (left in) measured @ 100 ft.
  - sounded - got a depth but seemed dry.
  - couldn't retrieve water from bailer, picked up sand. (DRY well)

IRA 18

- 1049
  - sounded well @ 75.30
  - seemed dry

IRA 17

- 1058
  - there was a bailer already set
  - dropped it down 5 times to retrieve samples
  - ~2 gallons purged

Rite in the Rain

IRA 21 (11.5)

-1140

- placed bailer
- got samples from 3 pulls of bailer

IRA 16

-1202

- had a bailer already preset (very large)
- filled samples with 1 bailer pull
- had problems sounding the well
  - couldn't get a good reading.

IRA-22

-1230

- set bailer
- got samples from 2 bailer pulls.

IRA-19

-1300

- well is dry
- well cap area was flooded with Rusty water.

3/10

IRA-33

825 - pumped out around 145 gallons before stabilization good well condition (2g/m)

IRA-32

900 - pumped out around 100 gallons. (2g/m) good well condition

IRA-38

1035 - the well caps were very Rusted. pumped out around.

IRA-37

1147 - good condition. pumped for 35 mins

IRA-4

1325 - good condition 1 1/4" pipe for pump in parking lot by the graffiti van.

IRA 32/33 Tamdra Vending 4517 - Pomona

IRA 38 - DIRECTLY ACROSS FROM FLOWING SPRING FIRE STATION (4701 LA CHOLLA)

IRA 39 - NORTH OF 1941 PASEO REFORMA SOUTH IN SMALL ALLY

Rain.

Well	gallons	Notes
IRA-30 (1452)	~8.4	very rusty well & cap. placed bailer (1452)
IRA-29 (1551)	~2	Seemed dry around .5gal. water was coming up very dirty & sandy. (flooded well area)
IRA-28 (1645)	0	took ~2 gallons of water out around casing & couldn't get a water level since it was dry.
IRA-27 (1700)	0	took sounder down & couldn't get a clear reading. Try to bail out water & only got sand. Left bailer in well.
IRA-23 (1712)	0	Sounded the well & didnt get a clear read because it was dry.

3/11

IRA-25

- well's plug is very old & rusted
- the well is not labeled but is next to an old car wash
- VERY HIGH PRESSURE IN WELL

SW CORNER OF WETMORE/ROMERO IN FRONT OF RUNDOWN CAR WASH.

NOTES

- IRA-5 TOMMORROW (9AM COLLISION)
- IRA-9 NEXT TUES (MECHANIC)
- FLUTE WELL COORDINATE W/ ARMONDO MON OR WEDNESDAY
- SPRING JOINT, 4 PIECES, 1 DRY, 2 PERCHED, 1 REGIONAL
- VILLA CAPRI, CALL THE GUY SPIKIT WELL. GRAB.

Rite in the Rain

3/11

IRA-8

The cord to the plug is very short and you need a pigtail for it to reach.

The well is in OK condition & is easy to purge.

IRA 6

WELL CONDITION GOOD
PUMP @ 2gpm

IRA-12-210

- 12-210 & 12-71 are in same well area.

IRA-13-210

WELL CONDITION GOOD. PUMP SLOW TO AVOID EXCESSIVE DRAW-DOWN. ~ 1gpm

for Ruth tank - 8260LL/Total Cr.

- do spring joint
  - *then gauge all the wells after that. (everyone!)
- email allang - about testing the water tank
- email alex - water level from

IRA-1

needs 3/4" connection
no well cap
poor plug condition (rusted/loose fitting)
- need to get a visitor badge from Nancy at front desk.

Rite in the Rain

3/12

Well name

- IRA-1
  - got proper connections & purged & sample
  - We have to check in @ front desk to be onsite.
- IRA-7
  - Desert autocare
  - well is located at the back of property. Difficult to reach & we had to move generator to well location.
  - The owner is very helpful
- IRA-10-230
  - in retirement community.
  - The bolts on the well cover need a penta-bolt socket. Very difficult to remove.
  - good well condition
- IRA-5
  - located on vacant lot. No clear markings.
  - Site contacts: Mike: 520-548-5999
- IRA-10-102
  - bailed around 1.5 gallons before it went dry.
  - there is a small pipe inside the larger well pipe

villa capri contact
[URS] 520-887-2255
Armando - 520.906.9177
MS contact
OSCAR SKINNER
520.235.4344

Monday
- auto 4x4 3-187.45
- villa capri

Tuesday
- SPRING joint

Wednesday
- flute well.

Rite in the Rain

3/13

IRA-26

- No direct access, next to a School track.
- Best to go through mobile home & put hose over the fence.
- plug was rusted & missing a prong and we replaced it.

IRA-11-210

- good well condition
- hard to get the wagon to, because its on a narrow dirt road next to recycling piles

IRA 40

- Bailed around 1 gallon until the well went dry

IRA 11-270

- Sounded well and it was dry.

- samples dropped off at test america and U of A lab for O, H, & trit. isotopes

3/16

*Villa Capri
- took samples from front spigot

*IRA-3
- tried repairing the plug but all 3 wires were exactly the same. One wire had a touch of red but we weren't sure so we wrapped up the wires. We left it and didn't replace the plug.

*IRA-9
- replaced plug
- decent condition of well
- had to move generator to well & pump over the brick wall.

*7am Wednesday (OSCAR)

Rite in the Rain.

3/17

Lat. 32.284291
Long. -110.99342

SJ - MW-3
- 30 feet from east of back door
- 20 feet north of concrete slab.

- tried bailing only recovered mud. Estimated around 3 inches of water
- water levels
  to start 93.53
  after attempted bailing 93.67
  then tagged bottom at 93.95

SJ-
- MW-1
  dry: unable to retrieve a water level.

- IRA-31
  - tried to get it to pump and didn't work.
  - used different attachments and tested generator on different well.

Rite in the Rain

FW023-27
2

SJ-MW 2

- bailed enough water for samples and extra since water was yellow to yellow brown.
- tested for O, H, tritium isotopes as well.

- total CR, VOC's

22

1045 3/19 179.5

172.63

T 3/19

1008 - 176.52

31-1000 3/19

0.42 2.10 8.8 2

1023 IRA 3/17 162.42

Water levels @ Sampling

72.57 IRA-17 3/17 1309 (VOC, CR)
69.32 IRA-21 3/17 1330 (VOC, CR)
67.64 IRA-12-70 3/17 1355 (VOC, CR, N)
-Dup made
171.80 - IRA-16 3/17 1421
67.69 - IRA-22 - 3/17 1436

Sampled from Darling Perched wells.

IRA-10-100 - 103.41 3/18 1200

88.21 IRA40 3/18 1238
64.95 IRA-30 3/18 1303
14.

Rite in the Rain

IRA-14

- gauge Regional well to get a water level. (IRA-2, 184.16)
- attach Regulator and attach to tubing.
  - need bead sounder
- easier to spray orings wet to get a better connection.
- plug into well & attach tube to bucket.
- make sure only one valve is open (double check the valves are closed)
- purge out line 1, 2, 3, 4, 5
  - 1 is dry.
  - then let sit for 15-30 mins
  - be careful of spit back & big pressure releases from tubes once purging is finished
  - repeat this 3 times to get 3 well volumes
- for next time, purge each line into individual buckets.
  - 2 purges = ~4 gallons for all 5 lines

8- 630-730(W)

el frontier mobile & RV park 4233 towing weds

1100	12	173.82	
1118	6	177.63	
1133	41	180.90	
1138	2	184.11	
1202	11	182.50	
1214	9	191.95	
1230	13	191.47	
1243	10	193.52	
1257	25	197.38	
1300	37	187.98	
1325	34	187.40	> No well caps
1328	37	187.45	• needs bolt (37)
1335	24	177.60	
1345	38	178.68	
1415	33	186.48	> no well caps
1420	32	186.78	
1455	35	188.38	> no well caps
1500	34	175.58	in a back alley along wet more
1515	26	200.50	
wrong address			

- Frontier mobile home park
  - casita ~~180~~ west 10
  - on airpaul property. on school property
  - right left 100 yds

Rite in the Rain

MRA 26

- It is at Frontier Mobile & RV Park 4233 flowing wells.
- enter and go west on Casitato, then left on Iroquois, then right on Kiowa. It is on Chipawa yet on the school property.

Rite in the Rain

WATER LEVEL MEASUREMENT FORM

Project No. 1420142030.5.2	Project Name: Miracle Mile WQARF
Meter (Type & ID #):	Measuring Point: **TOC**
Field Personnel: Sargent / Combs	Field Operations Leader (Alex Yiannakakis)

Well ID	Date	Time	Depth to Water (ft BTOC)	Notes/Comments/Condition of Well
IRA-1	3/12/15	902	168.90	
IRA-2	3/5/15	1310	184.60	
IRA-3	3/16/15	1200	187.45	
IRA-4	3/6/15	1300	184.60	Needs 1¼" to 1" pipe
IRA-5	3/12/15	1325	171.80	
IRA-6	3/11/15	1025	177.89	
IRA-7	3/12/15	1000	176.70	
IRA-8	3/11/15	917	179.98	
IRA-9	3/16/15	1340	191.15	
IRA-10-100	3/12/15	1217	99.90	@sample 103.41 (3/18/15) (1436)
IRA-10-230	3/12/15	1133	193.82	
IRA-11-70	3/13/15	1305	68.39	DRY
IRA-11-210	3/13/15	1230	182.81	
IRA-12-70	3/11/15	1535	68.50	at sampling 67.64 (3/17/15 - 1355)
IRA-12-210	3/11/15	1135	174.19	
IRA-13-210	3/11/15	1300	192.19	
IRA-14(2)				
IRA-14(3)				
IRA-14(4)				
IRA-14(5)				
IRA-15	3/6/15	1118	100.4	
IRA-16	3/9/15	1205	71.7	Sounder wouldn't give a good reading
IRA-17	3/9/15	1058	72.40	@Sample 72.59 (3/17/15 - 1309)
IRA-18	3/9/15	1049	75.30	Seemed like it was dry - (sand & water)
'RA-19	3/9/15	1302	71.80	dry well
IRA-20	3/9/15	1025	185.09	hitting water & sand
IRA-21	3/9/15	1130	66.42	@sample 69.32 (3/17/15 - 1330)
IRA-22	3/9/15	1230	65.61	@sample (3/17/15 - 1430) 67.69
IRA-23	3/10/15	1713	78.69	DRY
IRA-24	3/5/15	1155	178.58	
IRA-25	3/11/15	753	197.86	
IRA-26	3/13/15	0950	200.92	
IRA-27	3/10/15	1700	63.90	
IRA-28	3/10/15	1645	DRY	
IRA-29	3/10/15	1551	63.33	
IRA-30	3/10/15	1452	64.90	@sample (64.95) (3/18 - 1303)
IRA-31	3/17/15	1610	167.70	
IRA-32	3/10/15	945	187.25	
IRA-33	3/10/15	714	186.93	
IRA-34				
IRA-35				
IRA-36	3/5/15	1920	188.55	
IRA-37	3/5/15	1020	188.45	
IRA-38	3/10/15	1045	179.54	

@ Sampling 71.80 3/17/15 1421

Notes:

BTOC = Below top of casing; ID = Identification; TOC = Top of casing; ft = feet

[a]TOC elevations are below ground surface. All other wells presented in this table have TOC elevations that are above ground surface.

66.42

05

[b]Observation well monitored only for groundwater elevations (not sampled).

Signatures

Field Team Leader: _____ Reviewer: _____

WATER LEVEL MEASUREMENT FORM

Project No.	Project Name: Miracle Mile WQARF
Meter (Type & ID #):	Measuring Point: **TOC**
Field Personnel:	Field Operations Leader (Alex Yiannakakis)

Well ID	Date	Time	Depth to Water (ft BTOC)	Notes/Comments/Condition of Well
IRA-39	3/10/15	1145	188.36	
IRA-40	3/13/13	1345	88.24	@Sample 88.21 (3/18 - 1200)
IRA-41	3/6/15	0933	181.10	
SJ-MW-1	3/17/15	1129	~~[illegible]~~ 71.78	(bottom ~ 73.98)
SJ-MW-2	3/17/15	0945	NA	DRY
SJ-MW-3	3/17/15	0855	93.53	

Notes:

BTOC = Below top of casing; ID = Identification; TOC = Top of casing; ft = feet

[a]TOC elevations are below ground surface. All other wells presented in this table have TOC elevations that are above ground surface.

[b]Observation well monitored only for groundwater elevations (not sampled).

Signatures

Field Team Leader: _____ Reviewer: _____

WATER LEVEL MEASUREMENT FORM

Project No. 1420142030.5.2	Project Name: Miracle Mile WQARF
Meter (Type & ID #):	Measuring Point: TOC
Field Personnel: Sargent	Field Operations Leader Alex Yiannakakis)

	Well ID	Date	Time	Depth to Water (ft BTOC)	Notes/Comments/Condition of Well
X	IRA-1	3/19/15	1023	168.42	
X	IRA-2	3/19/15	1138	184.11	
—	IRA-3	3/19/15	0930	187.02	
X	IRA-4	3/19/15	0950	168.30	
X	IRA-5	X			Restricted access
X	IRA-6	3/19/15	1118	177.63	
X	IRA-7	3/19/15	1008	176.52	
X	IRA-8	3/19/15	1045	179.57	
X	IRA-9 -	3/19/15	1214	191.95	
X	IRA-10-100	X			Perched
X	IRA-10-230	3/19/15	1243	193.52	
X	IRA-11-70	X			Perched
X	IRA-11-210	3/19/15	1202	182.58	
X	IRA-12-70	X			Perched
X	IRA-12-210	3/19/15	1100	173.82	
X	IRA-13-210	3/19/15	1230	191.47	
X	IRA-14(2)	X			can't sound with our sounder
X	IRA-14(3)	X			X
X	IRA-14(4)	X			X
X	IRA-14(5)	X			X
X	IRA-15	X			Perched
X	IRA-16	X			Perched
X	IRA-17	X			Perched
X	IRA-18	X			Perched
X	IRA-19	X			Perched
X	IRA-20	X			Perched
X	IRA-21	X			Perched
X	IRA-22	X			Perched
X	IRA-23	X			Perched
X	IRA-24	3/19/15	1335	177.60	
X	IRA-25	3/19/15	1257	197.38	
X	IRA-26	3/19/15	1515	200.50	Wrong address.
X	IRA-27	X			Perched
X	IRA-28	X			Perched
X	IRA-29	X			Perched
X	IRA-30	X			Perched
X	IRA-31	3/19/15	1000	177.63	
X	IRA-32	3/19/15	1420	186.48	
X	IRA-33	3/19/15	1415	186.78	
X	IRA-34	3/19/15	1500	175.58	
X	IRA-35	3/19/15	1455	188.38	
X	IRA-36	3/19/15	1325	187.48	
X	IRA-37	3/19/15	1328	187.45	
X	IRA-38	3/19/15	1345	178.68	

Notes:

BTOC = Below top of casing; ID = Identification; TOC = Top of casing; ft = feet

(a)TOC elevations are below ground surface. All other wells presented in this table have TOC elevations that are above ground surface.

(b)Observation well monitored only for groundwater elevations (not sampled).

Signatures

Field Team Leader: _____ Reviewer: _____

WATER LEVEL MEASUREMENT FORM

Project No.	Project Name: Miracle Mile WQARF
Meter (Type & ID #):	Measuring Point: TOC
Field Personnel:	Field Operations Leader Alex Yiannakakis)

	Well ID	Date	Time	Depth to Water (ft BTOC)	Notes/Comments/Condition of Well
X	IRA-39	3/19/15	1308	187.98	
X	IRA-40	X			Porched
X	IRA-41	3/19/15	1133	180.90	
\	SJ-MW-1	X			Restricted access
\	SJ-MW-2	X			~~Restricted~~ Porched
X	SJ-MW-3	X			Porched ~~Restricted~~

Notes:

BTOC = Below top of casing; ID = Identification; TOC = Top of casing; ft = feet

(a)TOC elevations are below ground surface. All other wells presented in this table have TOC elevations that are above ground surface.

(b)Observation well monitored only for groundwater elevations (not sampled).

Signatures

Field Team Leader: _____ Reviewer: _____

PROJECT: Miracle Mile WQARF

WELL ID: IRA-1

SAMPLED BY: Sargent/Combs

DATE: 3/12/15

WELL INFORMATION ADEQ #57689

TD Casing:	4	~~feet~~ inches
Screened Interval:	130-210	feet
Discharge Rate:	4/3	gpm (est.)
Recommended Pumping ~~Time~~	95.1	~~minutes~~ gallons
Time Pump On:	832	hours
Time Pump Off:	912	hours
Total Time Pumped:	40	minutes

Static Depth to Water:	168.90	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	100	gallons
Water Level at Sampling:	171.14	feet

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments mg/L
837	24.46	7.52	1262	4	~20	170.41	DO: 3.7, ORP: 130.5, TURB: 17.7
842	26.03	7.55	1311	4	~40	170.50	DO: 3.18, ORP: 26.6, TURB: 10.0
847	26.23	7.56	1315	3	~55	171.05	DO: 3.11, ORP: -6.3, TURB: 8.98
852	26.01	7.55	1309	3	~70	171.12	DO: 3.05, ORP: -5.0, TURB: 10.7
857	25.81	7.56	1302	3	~85	171.14	DO: 2.98, ORP: 10.4, TURB: 9.04
902	25.86	7.55	1301	3	~100	171.14	DO: 2.95, ORP: 25.9, TURB: 7.90

Sample ID: IRA-1-81215 Sample Time: 902

Analyses Requested: VOC's, total Cr, gen chem, ~~an~~ ~~cat~~ isotope (O,H) (N,O)

100.

PROJECT: Miracle Mile WQARF

ADEQ#57690

WELL ID: IRA-2

SAMPLED BY: Sargent / Combs

DATE: 3/5/15

ADEQ-57690

WELL INFORMATION

TD Casing:	4 inches	~~feet~~
Screened Interval:	150-230	feet
Discharge Rate:	4	gpm (est.)
Recommended Pumping ~~Time~~:	105.5	~~minutes~~ gallons
Time Pump On:	1310	hours
Time Pump Off:	1335	hours
Total Time Pumped:	25	minutes

Static Depth to Water:	184.60	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	100	gallons
Water Level at Sampling:	184.70	feet

ADEQ#57690

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
1315	26.04	6.81	1491	4	~ 20	184.69	DO%: 42.7, ORP: -56.6, TURB: 28.4
1320	26.52	6.99	1499	4	~40	184.68	DO%: 37.7, ORP: -30.2, TURB: 14.4
1325	26.35	7.00	1492	4	~60	184.70	DO%: 34.9, ORP: -20.1, TURB: 10.6
1330	26.32	7.01	1491	4	~80	184.69	DO%: 32.8, ORP: -17.3, TURB: 3.35
1335	26.34	7.01	1490	4	~100	184.70	DO%: 31.2, ORP: -10.7, TURB: 7.28

Sample ID: IRA-2-030615

Sample Time: 1335

Analyses Requested: VOCs, Total Cr, Gen Geo Chem, Isotope (O, H, nitrate (N, O))

VOAs, HNO3, 500,

PROJECT: Miracle Mile WQARF

WELL ID: IRA-4

SAMPLED BY: Sargent / Combs

DATE: 3/10/15

WELL INFORMATION

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	168.37	feet
Screened Interval:	130 - 220	feet	Feet Water in Casing:		feet
Discharge Rate:	2	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~:	97.7	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1325	hours	Purge Volume:	60	gallons
Time Pump Off:	1355	hours	Water Level at Sampling:	172.58	feet
Total Time Pumped:	30	minutes			

ADEQ # 57685

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments (mg/L)
1330	25.21	7.25	2344	2	~10	171.17	DO: 30.3, ORP: -25.3, TURB: 548
1335	26.33	7.34	2371	2	~20	172.60	DO: 1.67, ORP: 39.0, TURB: 64.7
1340	26.68	7.36	2392	2	~30	172.60	DO: 1.52, ORP: 45.4, TURB: 42.4
1345	26.14	7.38	2362	2	~40	172.58	DO: 1.41, ORP: 55.4, TURB: 18.6
1350	26.16	7.39	2367	2	~50	172.58	DO: 1.37, ORP: 59.7, TURB: 11.2
1355	26.16	7.41	2365	2	~60	172.58	DO: 1.30, ORP: 64.3, TURB 9.06

Sample ID: IRA-4-031015 Sample Time: 1355 Analyses Requested: VOC's, Cr, gen chem -2 (O,H, trit) (O,N)

VOA, 250H
500 x2
150

PROJECT: Miracle Mile WQARF

WELL ID: IRA-5

SAMPLED BY: Sargent/Combs

DATE: 3/12/15

WELL INFORMATION ADEQ # 58234

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	171.80	feet
Screened Interval:	130-210	feet	Feet Water in Casing:		feet
Discharge Rate:	3	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Rate~~:	75.6	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1328	hours	Purge Volume:	75	gallons
Time Pump Off:	1356	hours	Water Level at Sampling:	171.85	feet
Total Time Pumped:	25	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments mg/L
1333	26.05	7.29	1624	3	~15	171.87	DO: 4.66, ORP: 90.5, TURB: 7.46
1338	26.44	7.15	1646	3	~30	171.87	DO: 4.48, ORP: 46.6, TURB: 5.64
1343	26.77	7.19	1655	3	~45	171.87	DO: 4.34, ORP: 65.1, TURB: 5.17
1348	26.79	7.19	1655	3	~60	171.85	DO: 4.24, ORP: 76.2, TURB: 5.20
1353	26.97	7.20	1658	3	~75	171.85	DO: 4.11, ORP: 83.4, TURB: 5.19

Sample ID: IRA-5-031215 Sample Time: 1353 Analyses Requested: VOCs, Cr, nitrate

PROJECT: Miracle Mile WQARF

WELL ID: IRA-6

SAMPLED BY: Sargent/Combs

DATE: 3/11/15

WELL INFORMATION ADEQ-57686

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	177.89	feet
Screened Interval:	138-203	feet	Feet Water in Casing:		feet
Discharge Rate:	2	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping Time:	46.3	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1030	hours	Purge Volume:	50	gallons
Time Pump Off:	1055	hours	Water Level at Sampling:	178.10	feet
Total Time Pumped:	25	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments (mg/L)
1035	25.95	7.06	1692	2	~10	178.09	DO: 8.35, ORP: 94.3, TURB. 14.5
1040	26.53	7.17	1670	2	~20	178.09	DO: 8.32, ORP: 88.7, TURB: 6.05
1045	26.60	7.18	1656	2	~30	178.09	DO: 8.32, ORP: 93.8, TURB: 5.22
1050	26.36	7.17	1644	2	~40	178.10	DO: 8.02, ORP: 98.9, TURB: 5.58
1055	26.16	7.17	1635	2	~50	178.10	DO: 7.92, ORP: 100.3, TURB: 5.57

Sample ID: IRA-6-031115 Sample Time: 1055 Analyses Requested: VOC's, nitrate, Cr.

PROJECT: Miracle Mile WQARF

WELL ID: IRA-7

SAMPLED BY: Sargent/Combs

DATE: 3/12/15

WELL INFORMATION ADEQ#57688

TD Casing:	4	~~feet~~ inches
Screened Interval:	138-203	feet
Discharge Rate:	2.5	gpm (est.)
Recommended Pumping ~~Time~~:	49.1	~~minutes~~ gallons
Time Pump On:	1000	hours
Time Pump Off:	1025	hours
Total Time Pumped:	25	minutes

Static Depth to Water:	176.70	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	50	gallons
Water Level at Sampling:	176.99	feet

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments mg/L
1005	25.41	7.18	1892	2.5	12.5	176.99	DO: 4.21, ORP: -49.4, TURB: 36.8
1010	26.38	7.21	1745	2.5	25	176.99	DO: 3.85, ORP: 7.7, TURB: 7.78
1015	26.60	7.16	1882	2.5	37.5	176.99	DO: 3.83, ORP: 34.0, TURB: 6.81
1020	26.67	7.15	1948	2.5	50	176.99	DO: 3.98, ORP: 48.4, TURB: 6.19

Sample ID: IRA-7-031215 Sample Time: 1020 Analyses Requested: VOC's, total Cr, nitrate

PROJECT: Miracle Mile WQARF

WELL ID: IRA-8

SAMPLED BY: Sargent / Combs

DATE: 3/11/15

WELL INFORMATION

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	179.98	feet
Screened Interval:	140-200	feet	Feet Water in Casing:		feet
Discharge Rate:	2	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~:	46.2	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	920	hours	Purge Volume:	50	gallons
Time Pump Off:	945	hours	Water Level at Sampling:	180.10	feet
Total Time Pumped:	25	minutes			

ADEQ # 57687

-very short plug.

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
							mg/L
925	26.14	7.16	1509	2	~10	180.10	DO: 3.11, ORP: 99.7, TURB: 9.33
930	26.24	7.19	1502	2	~20	180.10	DO: 2.64, ORP: 101.5, TURB: 7.10
935	26.34	7.20	1500	2	~30	180.10	DO: 2.11, ORP: 99.4, TURB: 7.13
940	26.38	7.20	1500	2	~40	180.10	DO: 1.91, ORP: 95.6, TURB: 6.99
945	26.45	7.20	1501	2	~50	180.10	DO: 1.79, ORP: 91.3, TURB: 6.99

Sample ID: IRA-8-031115 Sample Time: 945

Analyses Requested: VOC'S, cr, gencheme, anions cations
Isotope (O,H, tnt) (N,O)

PROJECT: Miracle Mile WQARF

WELL ID: IRA-9

SAMPLED BY: Sarah Combs

DATE: 3/16/15

WELL INFORMATION ADEQ # 58229

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	191.95	feet
Screened Interval:	145-225	feet	Feet Water in Casing:		feet
Discharge Rate:	4/3	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~	71.9	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1320	hours	Purge Volume:	80	gallons
Time Pump Off:	1345	hours	Water Level at Sampling:	192.26	feet
Total Time Pumped:	25	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
1325	26.56	7.15	1442	4	~20	192.60	mg/L DO: 4.80, ORP: 93.1, TURB: 22.9
1330	26.89	7.17	1453	3	~35	192.25	DO: 4.68, ORP: 101.9, TURB: 12.9
1335	26.82	7.17	1451	3	~50	192.25	DO: 4.55, ORP: 109.4, TURB: 12.0
1340	26.89	7.17	1453	3	~65	192.26	DO: 4.45, ORP: 114.3, TURB: 10.1
1345	26.95	7.17	1454	3	~80	192.26	DO: 4.32, ORP: 117.6, TURB: 8.83

Sample ID: IRA-9-031615 Sample Time: 1345 Analyses Requested: VOCs, Cr, nitrate

PROJECT: Miracle Mile WQARF

WELL ID: IRA-10-230

SAMPLED BY: Sargent / Combs

DATE: 3/12/15

WELL INFORMATION ADEQ# 58228

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	93.82	feet
Screened Interval:	145-220	feet	Feet Water in Casing:		feet
Discharge Rate:	3	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~:	67.4	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1140	hours	Purge Volume:	75	gallons
Time Pump Off:	1205	hours	Water Level at Sampling:	194.35	feet
Total Time Pumped:	25	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
1145	26.54	7.00	1472	3	~15	194.33	mg/L DO: 4.64, ORP: 89.0, TURB: 17.1
1150	27.12	7.00	1500	3	~30	194.36	DO: 4.42, ORP: 75.0, TURB: 10.0
1155	27.31	7.00	1499	3	~45	194.35	DO: 4.18, ORP: 79.9, TURB: 6.89
1200	27.37	7.00	1499	3	~60	194.35	DO: 3.92, ORP: 86.1, TURB: 6.06
1205	27.37	7.00	1495	3	~75	194.35	DO: 3.79, ORP: 93.6, TURB: 6.06

Sample ID: IRA-10-230-031215 Sample Time: 1205

Analyses Requested: VOCs, Cr, nitrate

PROJECT: Miracle Mile WQARF

ADEQ# 61486

WELL ID: IRA-11-210

SAMPLED BY: Sargent / Combs

DATE: 3/13/15

WELL INFORMATION

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	182.81	feet
Screened Interval:	150-210	feet	Feet Water in Casing:		feet
Discharge Rate:	3	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~:	49.1	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1230	hours	Purge Volume:	54	gallons
Time Pump Off:	1250	hours	Water Level at Sampling:	182.4	feet
Total Time Pumped:	18	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments		
							DO mg/L	ORP	TURB
1233	25.17	7.11	1649	3	9	182.14	4.31	115.6	663
1236	26.52	7.03	1704	3	18	182.14	4.12	113.5	382
1239	26.88	7.08	1713	3	27	182.4	3.91	112.3	66.5
1242	26.58	7.07	1694	3	36	182.4	3.84	113.9	39.7
1245	26.72	7.06	1684	3	45	182.4	3.72	115.4	22.0
1248	26.99	7.06	1683	3	54	182.4	3.61	115.0	16.5

Sample ID: IRA-11-210-031315 Sample Time: 1248

Analyses Requested: VOCs, Cr, Gen Chem
Isotope (O,H) (O,N)

PROJECT: Miracle Mile WQARF

WELL ID: IRA-12-210

SAMPLED BY: Sargent/Combs

DATE: 3/11/15

WELL INFORMATION ADEQ #61484

TD Casing:	4	~~feet~~ inches
Screened Interval:	140-210	feet
Discharge Rate:	2.5	gpm (est.)
Recommended Pumping ~~Time~~:	67.0	~~minutes~~ gallons
Time Pump On:	1135	hours
Time Pump Off:	1205	hours
Total Time Pumped:	30	minutes

Static Depth to Water:	174.19	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	75	gallons
Water Level at Sampling:	174.84	feet

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments mg/L
1140	25.05	6.96	2136	2.5	~12.5	174.84	DO: 6.79, ORP: 99.1, TURB: 33.4
1145	26.55	7.00	2059	2.5	~25	174.84	DO: 7.11, ORP: 19.5, TURB: 53.4
1150	26.76	6.99	2169	2.5	~37.5	174.84	DO: 7.28, ORP: 50.6, TURB: 15.3
1155	26.66	6.99	2177	2.5	~50	174.84	DO: 7.23, ORP: 54.6, TURB: 8.43
1200	26.68	7.00	2191	2.5	~62.5	174.84	DO: 8.55, ORP: 57.7, TURB: 6.43
1205	26.69	6.99	2197	2.5	~75	174.84	DO: 7.14, ORP: 62.1, TURB: 5.76

Sample ID: IRA-12-210-031115 Sample Time: 1205 Analyses Requested: VOC's, Cr, nitrate

12-70: same (2.9)

Duplicate made:

IRA-12-210-MM-DUP

PROJECT: Miracle Mile WQARF

WELL ID: IRA-13-210

SAMPLED BY: Sargent/Combs

DATE: 3/11/15

WELL INFORMATION ADEQ# 61567

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	192.19	feet
Screened Interval:	150-210	feet	Feet Water in Casing:		feet
Discharge Rate:	2/1	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping Time:	33.2	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1300	hours	Purge Volume:	36	gallons
Time Pump Off:	1340	hours	Water Level at Sampling:	192.85	feet
Total Time Pumped:	40	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments (mg/L)
1303	26.45	6.82	1770	2	~6	193.16	DO: 7.84, ORP: 70.8, TURB: 6.36 • turned off pump and fixed flow rate.
1310	25.52	6.72	1729	1	~11	192.89	DO: 5.13, ORP: 49.1, TURB: 83.1
1315	26.56	6.79	1824	1	~16	192.89	DO: 6.66, ORP: 8.9, TURB: 153
1320	27.60	6.86	1862	1	~21	192.89	DO: 6.45, ORP: 29.9, TURB: 45.9
1325	28.07	6.86	1866	1	~26	192.89	DO: 6.17, ORP: 52.8, TURB: 30.6
1330	28.45	6.86	1867	1	~31	192.85	DO: 5.84, ORP: 64.5, TURB: 15.2
1335	28.42	6.84	1861	1	~36	192.85	DO: 5.81, ORP: 60.2, TURB: 10.4

Sample ID: IRA-13-210-031115 Sample Time: 1335

Analyses Requested: VOC's, Cr, gen chem, isotope (O, H, trit) (O, N)

Duplicate made:

IRA-13-210-031115-DUP

63.7

PROJECT: Miracle Mile WQARF

WELL ID: IRA-24

SAMPLED BY: Sargent/Combs

DATE: 3/5/15

ADEQ# – 61607

WELL INFORMATION

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	178.58	feet
Screened Interval:	168-218	feet	Feet Water in Casing:		feet
Discharge Rate:	3	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~:	63.7	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	1155	hours	Purge Volume:	63	gallons
Time Pump Off:	1218	hours	Water Level at Sampling:	180.88'	feet
Total Time Pumped:	23	minutes			

– access the north curb on Lachollla. Northeast corner of Lachollla & Wetmore

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments (DO mg/L)
1200	27.01	7.37	2321	3	~15	180.75	DO: 4.80, ORP: 91.3, TURB: 10.2
1205	26.91	7.25	2324	3	~30	180.89	DO: 4.16, ORP: 93.6, TURB: 11.1
1210	26.98	7.26	2326	3	~45	180.90	DO: 4.00, ORP: 97.2, TURB: 8.74
1215	26.94	7.29	2327	3	~60	180.88	DO: 3.98, ORP: 92.7, TURB: 8.12
1218	26.97	7.22	2324	3	~63	180.87	DO: 3.99, ORP: 93.3, TURB: 7.27

Sample ID: IRA-24-030515 Sample Time: 1218 Analyses Requested: VOC's, total cr, nitrate

PROJECT: Miracle Mile WQARF

WELL ID: IRA-25

SAMPLED BY: Sargent/Combs

DATE: 3/11/15

WELL INFORMATION ADEQ → 91602

TD Casing:	4	~~feet~~ inches
Screened Interval:	170-240	feet
Discharge Rate:	5	gpm (est.)
Recommended Pumping ~~Time~~:	78.2	~~minutes~~ gallons
Time Pump On:	823	hours
Time Pump Off:	843	hours
Total Time Pumped:	20	minutes

Static Depth to Water:	197.86	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	100	gallons
Water Level at Sampling:	198.40	feet

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments mg/L
828	25.53	6.90	1551	5	~25	198.40	DO: 3.87, ORP: -19.1, Turb: 27.9
833	25.59	6.92	1551	5	~50	198.40	DO: 3.41, ORP: -14.7, Turb: 12.6
838	25.65	6.93	1551	5	~75	198.40	DO: 2.26, ORP: -8.0, Turb: 9.43
843	25.66	6.93	1558	5	~100	198.40	DO: 2.19, ORP: -3.2, Turb: 7.81

Sample ID: IRA-25-03/11/15 Sample Time: 843 Analyses Requested: VOC's, total Cr, nitrate

PROJECT: Miracle Mile WQARF
ADEQ# 61603

WELL ID: IRA-26
SAMPLED BY: Sargent / Combs
DATE: ~~3/13/15~~

WELL INFORMATION

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	200.92	feet
Screened Interval:	170-240	feet	Feet Water in Casing:		feet
Discharge Rate:	2.5	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping	73.5	gallons	Discharge Line Volume:		gallons
Time Pump On:	1015	hours	Purge Volume:	65	gallons
Time Pump Off:	1040	hours	Water Level at Sampling:	201.25	feet
Total Time Pumped:	25	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
							mg/L
1020	26.16	7.17	1085	2.5	~15	201.28	DO: 4.86, ORP: 129.4, TURB: 12.47
1025	27.48	7.15	1102	2.5	~27.5	201.27	DO: 4.40, ORP: 118.5, TURB: 12.03
1030	27.32	7.15	1104	2.5	~40	201.26	DO: 4.20, ORP: 120.3, TURB: 9.68
1035	28.22	7.16	1126	2.5	~52.5	201.25	DO: 3.88, ORP: 120.8, TURB: 9.44
1040	28.37	7.16	1138	2.5	~65	201.25	DO: 3.69, ORP: 121.4, TURB: 8.44
~~1045~~					~~77.5~~		

Sample ID: IRA-26-031315 Sample Time: 1040

Analyses Requested: VOC's, Cr, nitrate.

PROJECT: Miracle Mile WQARF

1790
0904

WELL ID: IRA-32-[illegible]

SAMPLED BY: Sargent / Combs

DATE: 3/10/15

WELL INFORMATION

TD Casing:	4.25 inches	~~feet~~	Static Depth to Water:	187.25	feet
Screened Interval:	180-230	feet	Feet Water in Casing:		feet
Discharge Rate:	2	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping [illegible]e:	89.5	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	855	hours	Purge Volume:	100	gallons
Time Pump Off:	945	hours	Water Level at Sampling:	187.37	feet
Total Time Pumped:	50	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments	
900	23.52	10.22	514	2	~10	187.38	DO%: 24.6, ORP: -206.2, TURB: 7.29	
905	24.11	7.48	992	2	~20	187.38	DO%: 26.6, ORP: -164.3, TURB: 10.2	
910	24.95	7.17	1066	2	~30	187.39	DO%: 2.13, ORP: -99.7, TURB: 15.3	DO (mg/L)
915	25.13	7.07	1068	2	~40	187.39	DO%: 2.23, ORP: -68.8, TURB: 10.9	DO (mg/L)
920	25.22	7.05	1074	2	~50	187.36	DO%: 2.73, ORP: -54.7, TURB: 14.2	DO (mg/L)
925	25.32	6.97	1079	2	~60	187.36	DO: 3.58, ORP: -42.9, TURB: 10.2	DO (mg/L)
930	25.33	6.98	1083	2	~70	187.37	DO: 4.01, ORP: -36.3, TURB: 8.56	DO (mg/L)
935	25.52	6.97	1087	2	~80	187.37	DO: 4.16, ORP: -31.7, TURB: 7.52	DO (mg/L)
940	25.62	6.97	1091	2	~90	187.37	DO: 4.24, ORP: -26.6, TURB: 7.30	DO (mg/L)
945	25.77	6.96	1092	2	~100	187.37	DO: 4.29, ORP: -23.9, TURB:	DO (mg/L)

Sample ID: IRA-32-031015 Sample Time: 945 Analyses Requested: VOC's, Total Cr, Nitrate

PROJECT: Miracle Mile WQARF

352.

WELL ID: IRA-33

SAMPLED BY: Comks/Sargent

DATE: 3/10/15

WELL INFORMATION

TD Casing:	4.25 inches ~~feet~~	
Screened Interval:	269-289 / 309-329	feet
Discharge Rate:	4/3/2	gpm (est.)
Recommended Pumping ~~Time~~:	3528	~~minutes~~ gallons
Time Pump On:	715 -	hours
Time Pump Off:	825	hours
Total Time Pumped:	70	minutes

Static Depth to Water:	186.93	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	145	gallons
Water Level at Sampling:	189.10	feet

ADEQ # - none

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
725	23.59	8.80	767	4gal/m	~20	190.03	DO%: 80.4, ORP: -186.1, TURB: 129
730	24.87	7.12	1066	3gal/m	~35	190.91	DO%: 74.5, ORP: -99.7, TURB: 18.7
735	24.63	7.08	1054	2gal/m	~45	189.19	DO%: 72.8, ORP: -85.0, TURB: 10.7
740	24.74	7.08	1037	2gal/m	~55	189.09	DO%: 71.9, ORP: -69.7, TURB: 8.43
745	24.65	7.06	1031	2	~65	189.18	DO%: 67, ORP: -54.3, TURB: 8.30
750	24.75	7.06	1020	2	~75	189.09	DO%: 61.8, ORP: -39.8, TURB: 10.8
755	24.89	7.06	1006	2	~85	189.19	DO%: 57.0, ORP: -21.9, TURB: 11.9
800	24.47	7.07	985	2	~95	189.19	DO%: 53.6, ORP: -15.9, TURB: 10.9
805	25.05	7.08	960	2	~105	189.19	DO%: 50.4, ORP: [illegible], TURB: 10.6 ORP: -1.1
810	25.11	7.10	936	2	~115	189.19	DO%: 49.0, ORP: 11.8, TURB: 9.75
815	25.28	7.11	910	2	~125	189.19	DO%: 47.6, ORP: 19.2, TURB: 9.98
820	25.31	7.12	891	2	~135	189.19	DO%: 51.0, ORP: 12.6, TURB: 9.83
825	25.51	7.13	871	2	~145	189.10	DO%: 41.3, ORP: 12.4, TURB: 9.07
~~830~~				~~2~~	~~~155~~		~~DO%: , ORP: , TURB:~~ S

Sample ID: IRA-33-03/015 Sample Time: 825 Analyses Requested: VOC, Total Cr, Nitrate

PROJECT: Miracle Mile WQARF

WELL ID: IRA-36

SAMPLED BY: Sargent/Combs

DATE: 3/5/15

WELL INFORMATION

TD Casing:	4.25	~~feet~~ inches	Static Depth to Water:	188.55	feet
Screened Interval:	180-210/220-240	feet	Feet Water in Casing:		feet
Discharge Rate:	4 gal/min	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~:	94.1	~~minutes~~ gallons	Discharge Line Volume:		gallons
Time Pump On:	920	hours	Purge Volume:	100	gallons
Time Pump Off:	943	hours	Water Level at Sampling:	188.80	feet
Total Time Pumped:	25	minutes			

4gal/min

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments (mg/L)
923	24.20	8.42	2140	4gal/min	~20 gallons	188.80	DO%: 9.72, ORP: -12.6, Turb: 158.
928	24.78	7.77	2380	4gal/min	~40 gallons	188.82	DO%: 9.12, ORP: -23.8, Turb: 19.3
933	24.96	7.51	2431	4gal/min	~60 gallons	188.81	DO%: 8.35, ORP: -7.6, Turb: 13.8
938	25.16	7.45	2447	4gal/min	~80 gallons	188.80	DO%: 7.28, ORP: -2.1, Turb: 9.32
943	25.08	7.42	2441	4gal/min	~100 gallons	188.80	DO%: 6.65, ORP: 12.8, Turb: 11.5

Sample ID: IRA-36-030515 Sample Time: 943 Analyses Requested: VOC's, Total Cr, Nitrate

PROJECT: Miracle Mile WQARF

WELL ID: IRA - 37

SAMPLED BY: Sargent / Combs

DATE: 3/5/15

WELL INFORMATION

TD Casing:	4.25	~~feet~~ inches
Screened Interval:	275-285/295-315	feet
Discharge Rate:	5,4,3	gpm (est.)
Recommended Pumping ~~Time~~:	360.1	~~minutes~~ gallons
Time Pump On:	1020	hours
Time Pump Off:	1100	hours
Total Time Pumped:	40	minutes

Static Depth to Water:	188.43	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	145	gallons
Water Level at Sampling:	188.45	feet

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments (DO mg/L)	
1025	24.56	8.56	1026	5	~ 25	193.50	DO: 3.50, ORP: -113.5, Turb: 12.3	← adjusted flow rate to let the well recharge.
1030	25.19	8.21	1096	4	~ 45	188.44	DO: 3.56, ORP: -78.1, Turb: 11.0	
1035	24.56	7.91	1108	4	~ 65	188.46	DO: 3.56, ORP: -59, Turb: 9.31	
1040	24.08	7.82	1108	4	~ 85	191.50	DO: 3.55, ORP: -44.2, Turb: 8.20	← need to adjust flow rate to accomodate the well.
1045	25.77	7.74	1272	3	~ 100	188.59	DO: 3.16, ORP: -31.1, Turb: 7.87	
1050	25.10	7.74	1286	3	~ 115	188.48	DO: 3.16, ORP: -29.6, Turb: 7.25	
1055	25.02	7.72	1278	3	~ 130	188.45	DO: 3.21, ORP: -27.4, Turb: 7.38	
1100	25.01	7.71	1280	3	~ 145	188.45	DO: 3.17, ORP: -25.9, Turb:	

Sample ID: IRA-37-030515 Sample Time: 1100 Analyses Requested: VOC's, Total Cr, Nitrate

87.5

PROJECT: Miracle Mile WQARF

WELL ID: IRA-38

SAMPLED BY: Sargent / Combs

DATE: 3/10/15

WELL INFORMATION

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	179.54	feet
Screened Interval:	175 - 225	feet	Feet Water in Casing:		feet
Discharge Rate:	4	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time~~:	87.5 gallons	~~minutes~~	Discharge Line Volume:		gallons
Time Pump On:	1045	hours	Purge Volume:	100	gallons
Time Pump Off:	1110	hours	Water Level at Sampling:	179.58	feet
Total Time Pumped:	25	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
							mg/L
1050	26.20	7.08	1288	4	~20	179.59	DO: 6.15, ORP: 14.3, TURB: 8.93
1055	26.38	7.09	1285	4	~40	179.58	DO: 5.36, ORP: 45.2, TURB: 7.23
1100	26.51	7.13	1281	4	~60	179.58	DO 4.86, ORP: 58.4, TURB: 7.41
1105	26.64	7.15	1281	4	~80	179.58	DO: 3.63, ORP: 65.1, TURB: 7.43
1110	26.60	7.13	1279	4	~100	179.58	DO: 2.89, ORP: 47.7, TURB: 7.48
~~HIS~~							

Sample ID: IRA-38-031015 Sample Time: 1110 Analyses Requested: VOC's, Total Cr, Nitrate

PROJECT: Miracle Mile WQARF

WELL ID: IRA-39

SAMPLED BY: Sargent/Combs

DATE: 3/10/15

WELL INFORMATION

TD Casing:	4	~~feet~~ inches	Static Depth to Water:	188.36	feet
Screened Interval:	185-235	feet	Feet Water in Casing:		feet
Discharge Rate:	3	gpm (est.)	Casing Capacity:		gallons
Recommended Pumping ~~Time:~~	94.7 gallons	~~minutes~~	Discharge Line Volume:		gallons
Time Pump On:	1147	hours	Purge Volume:	105	gallons
Time Pump Off:	1222	hours	Water Level at Sampling:	190.41	feet
Total Time Pumped:	35	minutes			

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments (mg/L)
1152	26.82	7.10	1638	3	~15	190.35	DO: 3.23, ORP: -46.8, TURB: 6.57
1157	27.55	7.21	1646	3	~30	190.38	DO: 2.31, ORP: -32.6, TURB: 16.8
1202	27.41	7.19	1634	3	~45	190.38	DO: 1.78, ORP: 16.8, TURB: 11
1207	27.52	7.21	1633	3	~60	190.41	DO: 1.62, ORP: 28.6, TURB: 8.66
1212	27.58	7.20	1634	3	~75	190.41	DO: 1.54, ORP: 28.3, TURB: 6.99
1217	27.57	7.19	1634	3	~90	190.41	DO: 1.56, ORP: 29.6, TURB: 6.59
1222	27.53	7.23	1633	3	~105	190.41	DO: 1.52, ORP: 35.7, TURB: 6.31

Sample ID: IRA-39-031015 Sample Time: 1222 Analyses Requested: VOC's, Total Cr, gen geochem

Isotope (O,H,) (N,O)

VOC's

SO_4 x2

NO_3

PROJECT: Miracle Mile WQARF

414.8

WELL ID: IRA-41

SAMPLED BY: Sargent / Combs

DATE: 3/6/15

WELL INFORMATION

TD Casing:	4	~~feet~~ inches
Screened Interval:	350-400	feet
Discharge Rate:	4	gpm (est.)
Recommended Pumping ~~Time~~:	414.8	~~minutes~~ gallons
Time Pump On:	1015	hours
Time Pump Off:	1045	hours
Total Time Pumped:	30	minutes

Static Depth to Water:	181.10	feet
Feet Water in Casing:		feet
Casing Capacity:		gallons
Discharge Line Volume:		gallons
Purge Volume:	120	gallons
Water Level at Sampling:	187.28	feet

Time	Temp (°C)	pH	EC (µS/cm)	Q (gpm)	Purge Volume (gallons)	Water Level (ft btoc)	Comments
1020	28.83	7.64	1021	4	~20	188.50	DO%: 46.8, ORP: -71.4, TURB: 17.7
1025	28.39	7.62	1014	4	~40	187.15	DO%: 43.9, ORP: -49.0, TURB: 16.6
1030	28.11	7.66	1010	4	~60	187.15	DO%: 40.4, ORP: -39.4, TURB: 18.1
1035	28.14	7.65	1010	4	~80	187.20	DO%: 37.8, ORP: -30.5, TURB: 14.3
1040	28.22	7.66	1011	4	~100	187.28	DO%: 35.3, ORP: -27.8, TURB: 14.5
1045	28.19	7.65	1011	4	~120	187.28	DO%: 33.6, ORP: -22.2, TURB:

Sample ID: IRA-41-030615 Sample Time: 1045

Analyses Requested: VOC's, Total Cr, Gen Geochem, Isotope (OH, Nitrate (N,O))

APPENDIX B

HISTORICAL WATER LEVEL DATA

Appendix B
Historical Water Level Data
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-1	57689	55-529841	R	130-210	1/1/1992	2281.13	152.53	2128.60
					2/1/1992	2281.13	151.98	2129.15
					3/1/1992	2281.13	151.66	2129.47
					4/1/1992	2281.13	151.28	2129.85
					5/1/1992	2281.13	151.46	2129.67
					6/1/1992	2281.13	152.15	2128.98
					4/21/1993	2281.13	150.87	2130.26
					7/27/1993	2281.13	146.58	2134.55
					1/12/1995	2281.13	146.10	2135.03
					2/26/1996	2281.13	140.02	2141.11
					1/28/1997	2281.13	144.54	2136.59
					3/25/1997	2281.13	143.87	2137.26
					11/24/1997	2281.13	147.81	2133.32
					11/27/1997	2281.13	148.11	2133.02
					4/21/1998	2281.13	144.56	2136.57
					5/27/1998	2281.13	144.74	2136.39
					6/19/1998	2281.13	145.24	2135.89
					5/19/1999	2281.13	145.41	2135.72
					6/21/1999	2281.13	147.52	2133.61
					7/15/1999	2281.13	147.89	2133.24
					8/18/1999	2281.13	147.95	2133.18
					9/16/1999	2281.13	147.98	2133.15
					10/21/1999	2281.13	147.89	2133.24
					11/18/1999	2281.13	147.87	2133.26
					12/16/1999	2281.13	147.37	2133.76
					1/20/2000	2281.13	146.72	2134.41
					2/17/2000	2281.13	146.52	2134.61
					3/17/2000	2281.13	146.33	2134.80
					4/21/2000	2281.13	146.32	2134.81
					5/18/2000	2281.13	147.02	2134.11
					9/25/2000	2281.13	150.28	2130.85
					12/18/2000	2281.13	150.06	2131.07
					3/12/2001	2281.13	146.78	2134.35
					6/26/2001	2281.13	147.8	2133.33
					9/25/2001	2281.13	150.84	2130.29
					12/10/2001	2281.13	151.22	2129.91
					3/14/2002	2281.13	149.86	2131.27
					4/29/2002	2281.13	149.93	2131.20
					9/10/2002	2281.13	153.78	2127.35
					1/6/2003	2281.13	154.56	2126.57
					5/6/2003	2281.13	155.16	2125.97
					3/2/2004	2281.13	156.98	2124.15
					5/20/2004	2283.32	157.94	2125.38
					12/7/2004	2283.32	162.26	2121.06
					1/7/2005	2283.32	161.93	2121.39
					2/8/2005	2283.32	161.31	2122.01
					3/8/2005	2283.32	160.73	2122.59
					3/30/2005	2283.32	160.96	2122.36
					3/31/2005	2283.32	161.25	2122.07
					5/6/2005	2283.32	160.29	2123.03
					9/29/2005	2283.28	163.04	2120.24
					10/19/2005	2283.28	163.21	2120.07
					11/16/2005	2283.28	162.74	2120.54
					12/15/2005	2283.28	162.23	2121.05
					1/19/2006	2283.28	163.10	2120.18
					2/14/2006	2283.28	162.78	2120.50
					3/22/2006	2283.28	160.81	2122.47
					4/21/2006	2283.28	160.55	2122.73
					5/23/2006	2283.28	161.02	2122.26
					6/29/2006	2283.28	161.86	2121.42
					7/27/2006	2283.28	162.54	2120.74
					8/24/2006	2283.28	162.55	2120.73
					10/6/2006	2283.28	162.85	2120.43
					11/8/2006	2283.28	162.66	2120.62
					12/12/2006	2283.28	162.71	2120.57
					1/10/2007	2283.28	163.46	2119.82
					2/16/2007	2283.28	163.18	2120.10
					3/15/2007	2283.28	163.05	2120.23
					4/16/2007	2283.28	163.03	2120.25

Appendix B
Historical Water Level Data
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-1	57689	55-529841	R	130-210	5/17/2007	2283.28	163.47	2119.81
					7/25/2007	2283.28	165.01	2118.27
					8/31/2007	2283.28	165.34	2117.94
					10/15/2007	2283.28	164.90	2118.38
					11/29/2007	2283.28	165.38	2117.90
					12/28/2007	2283.28	165.25	2118.03
					1/30/2008	2283.28	163.38	2119.90
					3/26/2008	2283.28	162.57	2120.71
					4/2/2008	2283.28	162.57	2120.71
					5/30/2008	2283.28	163.78	2119.50
					6/25/2008	2283.28	163.38	2119.90
					9/25/2008	2283.28	163.32	2119.96
					10/8/2008	2283.28	162.94	2120.34
					11/13/2008	2283.28	162.14	2121.14
					10/6/2010	2283.28	165.72	2117.56
					12/5/2011	2283.28	168.09	2115.19
					10/8/2012	2283.28	170.49	2112.79
					5/8/2014	2283.28	171.39	2111.89
					3/19/2015	2283.28	168.42	2114.86
IRA-10-100	58336	55-561743	P	81.5-101.5	4/19/1998	2303.72	98.86	2204.86
					5/27/1998	2303.72	98.91	2204.81
					6/19/1998	2303.72	98.71	2205.01
					5/19/1999	2303.72	98.09	2205.63
					6/21/1999	2303.72	98.61	2205.11
					7/15/1999	2303.72	98.70	2205.02
					8/19/1999	2303.72	98.63	2205.09
					9/16/1999	2303.72	98.66	2205.06
					10/21/1999	2303.72	98.71	2205.01
					11/18/1999	2303.72	98.61	2205.11
					3/6/2002	2303.72	99.01	2204.71
					4/30/2002	2303.72	99	2204.72
					9/12/2002	2303.72	99.5	2204.22
					1/9/2003	2303.72	98.94	2204.78
					5/5/2003	2303.72	98.93	2204.79
					3/2/2004	2303.72	101.1	2202.62
					5/24/2004	2306.39	101.03	2205.36
					12/7/2004	2306.39	100.9	2205.49
					1/7/2005	2306.39	100.87	2205.52
					2/8/2005	2306.39	100.15	2206.24
					3/7/2005	2306.39	99.54	2206.85
					3/30/2005	2306.39	99.43	2206.96
					5/6/2005	2306.39	100.03	2206.36
					9/29/2005	2305.87	100.04	2205.83
					10/18/2005	2305.87	100.04	2205.83
					11/16/2005	2305.87	103.03	2202.84
					12/15/2005	2305.87	102.88	2202.99
					1/19/2006	2305.87	102.42	2203.45
					2/14/2006	2305.87	102.51	2203.36
					3/22/2006	2305.87	101.43	2204.44
					4/21/2006	2305.87	102.39	2203.48
					5/23/2006	2305.87	102.43	2203.44
					6/29/2006	2305.87	102.37	2203.5
					7/27/2006	2305.87	102.39	2203.48
					8/24/2006	2305.87	102.28	2203.59
					10/6/2006	2305.87	102.37	2203.5
					11/8/2006	2305.87	102.87	2203
					12/12/2006	2305.87	102.71	2203.16
					1/10/2007	2305.87	101.92	2203.95
					2/16/2007	2305.87	100.67	2205.2
					3/15/2007	2305.87	100.04	2205.83
					4/16/2007	2305.87	100.06	2205.81
					5/17/2007	2305.87	102.37	2203.5
					6/20/2007	2305.87	101.84	2204.03
					8/31/2007	2305.87	101.89	2203.98
					10/15/2007	2305.87	102.06	2203.81
					11/28/2007	2305.87	103.05	2202.82
					12/31/2007	2305.87	102.43	2203.44
					1/31/2008	2305.87	101.63	2204.24
					2/27/2008	2305.87	100.97	2204.9

Appendix B
Historical Water Level Data
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-10-100	58336	55-561743	P	81.5-101.5	3/26/2008	2305.87	100.42	2205.45
					4/21/2008	2305.87	101.64	2204.23
					5/30/2008	2305.87	101.74	2204.13
					6/25/2008	2305.87	101.69	2204.18
					9/24/2008	2305.87	101.54	2204.33
					10/8/2008	2305.87	101.54	2204.33
					11/6/2008	2305.87	101.53	2204.34
					10/5/2010	2305.87	98.82	2207.05
					12/5/2011	2305.87	98.82	2207.05
					10/8/2012	2305.87	98.86	2207.01
					5/7/2014	2305.87	98.91	2206.96
					3/12/2015	2305.87	99.90	2205.97
IRA-10-230	58228	55-561744	R	145-225	11/24/1997	2303.32	175.47	2127.85
					11/27/1997	2303.32	176.60	2126.72
					4/21/1998	2303.32	170.22	2133.10
					5/27/1998	2303.32	170.40	2132.92
					6/19/1998	2303.32	170.84	2132.48
					5/19/1999	2303.32	171.53	2131.79
					6/21/1999	2303.32	172.66	2130.66
					7/15/1999	2303.32	173.07	2130.25
					8/19/1999	2303.32	173.15	2130.17
					9/23/1999	2303.32	172.47	2130.85
					10/21/1999	2303.32	172.93	2130.39
					11/18/1999	2303.32	172.74	2130.58
					12/16/1999	2303.32	172.50	2130.82
					1/20/2000	2303.32	171.5	2131.82
					2/17/2000	2303.32	171.58	2131.74
					3/16/2000	2303.32	171.26	2132.06
					4/21/2000	2303.32	171.74	2131.58
					5/18/2000	2303.32	172.34	2130.98
					9/26/2000	2303.32	175.43	2127.89
					12/18/2000	2303.32	174.69	2128.63
					3/12/2001	2303.32	171.46	2131.86
					6/26/2001	2303.32	173.19	2130.13
					9/26/2001	2303.32	175.89	2127.43
					12/17/2001	2303.32	175.89	2127.43
					3/6/2002	2303.32	174.19	2129.13
					4/30/2002	2303.32	175.07	2128.25
					9/12/2002	2303.32	179.12	2124.20
					1/9/2003	2303.32	179.63	2123.69
					5/5/2003	2303.32	180.34	2122.98
					3/2/2004	2303.32	181.43	2121.89
					5/24/2004	2305.51	183.51	2122
					12/7/2004	2305.51	187.81	2117.7
					1/7/2005	2305.51	186.66	2118.85
					2/8/2005	2305.51	186.29	2119.22
					3/7/2005	2305.51	185.63	2119.88
					3/30/2005	2305.51	185.75	2119.76
					3/31/2005	2305.51	186.15	2119.36
					5/6/2005	2305.51	185.16	2120.35
					9/29/2005	2305.61	188.59	2117.02
					10/18/2005	2305.61	188.53	2117.08
					11/16/2005	2305.61	187.83	2117.78
					12/15/2005	2305.61	187.05	2118.56
					1/19/2006	2305.61	186.83	2118.78
					2/14/2006	2305.61	186.98	2118.63
					3/22/2006	2305.61	185.37	2120.24
					4/21/2006	2305.61	185.18	2120.43
					5/23/2006	2305.61	186.38	2119.23
					6/29/2006	2305.61	187.50	2118.11
					7/27/2006	2305.61	188.23	2117.38
					8/24/2006	2305.61	188.01	2117.60
					10/6/2006	2305.61	188.14	2117.47
					11/8/2006	2305.61	187.51	2118.10
					12/12/2006	2305.61	187.99	2117.62
					1/10/2007	2305.61	188.27	2117.34
					2/16/2007	2305.61	187.31	2118.30
					3/15/2007	2305.61	187.25	2118.36
					4/16/2007	2305.61	187.73	2117.88

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-10-230	58228	55-561744	R	145-225	5/17/2007	2305.61	187.83	2117.78
					6/20/2007	2305.61	187.90	2117.71
					7/25/2007	2305.61	189.77	2115.84
					8/31/2007	2305.61	190.17	2115.44
					10/15/2007	2305.61	189.99	2115.62
					11/28/2007	2305.61	189.07	2116.54
					12/31/2007	2305.61	188.76	2116.85
					1/31/2008	2305.61	188.32	2117.29
					2/27/2008	2305.61	187.24	2118.37
					3/26/2008	2305.61	186.44	2119.17
					4/21/2008	2305.61	186.20	2119.41
					5/30/2008	2305.61	186.19	2119.42
					6/25/2008	2305.61	186.52	2119.09
					9/24/2008	2305.61	186.91	2118.70
					10/8/2008	2305.61	186.73	2118.88
					11/6/2008	2305.61	185.36	2120.25
					10/5/2010	2305.61	189.27	2116.34
					12/5/2011	2305.61	191.33	2114.28
					10/8/2012	2305.61	193.50	2112.11
					5/7/2014	2305.61	195.57	2110.04
					3/19/2015	2305.61	193.52	2112.09
IRA-11-210	61486	55-586372	R	150-210	6/28/2001	2291.48	160.49	2130.99
					9/27/2001	2291.48	167.39	2124.09
					12/13/2001	2291.48	164.09	2127.39
					3/7/2002	2291.48	164.23	2127.25
					4/30/2002	2291.48	161.86	2129.62
					9/11/2002	2291.48	166.38	2125.10
					1/6/2003	2291.48	166.74	2124.74
					5/7/2003	2291.48	167.45	2124.03
					3/11/2004	2291.48	169.28	2122.20
					5/24/2004	2293.67	170.93	2122.74
					5/27/2004	2286.27	162.39	2123.88
					12/7/2004	2293.67	175.15	2118.52
					1/7/2005	2293.67	174.52	2119.15
					2/8/2005	2293.67	173.71	2119.96
					3/8/2005	2293.67	172.88	2120.79
					3/30/2005	2293.67	172.49	2121.18
					3/31/2005	2293.67	172.67	2121
					5/6/2005	2293.67	171.98	2121.69
					9/30/2005	2293.84	175.23	2118.61
					10/24/2005	2293.84	175.25	2118.59
					11/16/2005	2293.84	175.27	2118.57
					12/15/2005	2293.84	174.94	2118.9
					1/19/2006	2293.84	174.51	2119.33
					2/14/2006	2293.84	174.62	2119.22
					3/22/2006	2293.84	173.47	2120.37
					4/21/2006	2293.84	173.13	2120.71
					7/27/2006	2293.84	175.62	2118.22
					8/24/2006	2293.84	175.62	2118.22
					10/6/2006	2293.84	175.74	2118.1
					11/8/2006	2293.84	175.80	2118.04
					12/12/2006	2293.84	175.82	2118.02
					1/10/2007	2293.84	175.91	2117.93
					2/16/2007	2293.84	175.87	2117.97
					3/15/2007	2293.84	174.76	2119.08
					4/16/2007	2293.84	172.01	2121.83
					5/17/2007	2293.84	172.54	2121.3
					6/20/2007	2293.84	172.73	2121.11
					7/25/2007	2293.84	176.82	2117.02
					8/31/2007	2293.84	176.98	2116.86
					10/15/2007	2293.84	177.21	2116.63
					11/28/2007	2293.84	176.68	2117.16
					12/28/2007	2293.84	175.96	2117.88
					1/31/2008	2293.84	175.61	2118.23
					2/27/2008	2293.84	175.33	2118.51
					3/26/2008	2293.84	173.98	2119.86
					4/21/2008	2293.84	173.75	2120.09
					5/30/2008	2293.84	174.89	2118.95
					6/25/2008	2293.84	174.28	2119.56

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-11-210	61486	55-586372	R	150-210	9/25/2008	2293.84	174.79	2119.05
					10/8/2008	2293.84	174.88	2118.96
					11/14/2008	2293.84	174.16	2119.68
					10/5/2010	2293.84	178.57	2115.27
					12/6/2011	2293.84	181.15	2112.69
					10/8/2012	2293.84	182.98	2110.86
					5/7/2014	2293.84	184.91	2108.93
					3/19/2015	2293.84	182.58	2111.26
IRA-11-70	61487	55-586372	P	58-68	6/28/2001	2291.69	68	2223.69
					9/27/2001	2291.69	67.93	2223.76
					12/13/2001	2291.69	67.97	2223.72
					3/7/2002	2291.69	68.25	2223.44
					9/11/2002	2291.69	64.08	2227.61
					1/6/2003	2291.69	67.89	2223.80
					3/11/2004	2291.69	67.28	2224.41
					5/24/2004	2293.88	67.91	2225.97
					2/8/2005	2293.88	64.75	2229.13
					3/8/2005	2293.88	64.1	2229.78
					3/30/2005	2293.88	68.14	2225.74
					9/29/2005	2293.63	67.21	2226.42
					10/20/2005	2293.63	63.71	2229.92
					11/16/2005	2293.63	68.36	2225.27
					12/15/2005	2293.63	68.60	2225.03
					1/19/2006	2293.63	68.05	2225.58
					2/14/2006	2293.63	68.72	2224.91
					3/22/2006	2293.63	69.01	2224.62
					8/24/2006	2293.63	66.75	2226.88
					10/6/2006	2293.63	66.67	2226.96
					11/8/2006	2293.63	66.54	2227.09
					12/12/2006	2293.63	66.62	2227.01
					1/10/2007	2293.63	68.52	2225.11
					2/16/2007	2293.63	68.81	2224.82
					3/15/2007	2293.63	68.89	2224.74
					4/16/2007	2293.63	68.81	2224.82
					5/17/2007	2293.63	68.95	2224.68
					6/20/2007	2293.63	68.84	2224.79
					7/25/2007	2293.63	68.91	2224.72
					8/31/2007	2293.63	66.89	2226.74
					10/15/2007	2293.63	67.50	2226.13
					11/28/2007	2293.63	68.56	2225.07
					12/28/2007	2293.63	68.45	2225.18
					1/30/2008	2293.63	66.71	2226.92
					2/27/2008	2293.63	67.89	2225.74
					3/26/2008	2293.63	67.40	2226.23
					4/1/2008	2293.63	67.40	2226.23
					5/30/2008	2293.63	68.57	2225.06
					6/25/2008	2293.63	68.77	2224.86
					9/24/2008	2293.63	67.76	2225.87
					10/8/2008	2293.63	67.08	2226.55
					11/17/2008	2293.63	68.10	2225.53
					10/5/2010	2293.63	67.77	2225.86
					10/8/2012	2293.63	67.89	2225.74
					5/7/2014	2293.63	68.11	2225.52
					3/13/2015	2293.63	68.39	2225.24
IRA-12-210	61484	55-586370	R	140-210	6/27/2001	2284.08	151.35	2132.73
					9/27/2001	2284.08	154.68	2129.40
					12/13/2001	2284.08	155.53	2128.55
					3/5/2002	2284.08	152.99	2131.09
					4/29/2002	2284.08	153.52	2130.56
					9/11/2002	2284.08	157.65	2126.43
					1/7/2003	2284.08	158.32	2125.76
					5/6/2003	2284.08	158.73	2125.35
					3/1/2004	2284.08	160.75	2123.33
					12/7/2004	2286.27	166.75	2119.52
					1/7/2005	2286.27	166.01	2120.26
					2/8/2005	2286.27	165.08	2121.19
					3/7/2005	2286.27	164.79	2121.48
					3/30/2005	2286.27	164.51	2121.76
					3/31/2005	2286.27	164.55	2121.72

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-12-210	61484	55-586370	R	140-210	5/6/2005	2286.27	163.45	2122.82
					9/29/2005	2286.52	166.67	2119.85
					10/17/2005	2286.52	166.82	2119.70
					11/16/2005	2286.52	166.99	2119.53
					12/15/2005	2286.52	166.47	2120.05
					1/19/2006	2286.52	166.05	2120.47
					2/14/2006	2286.52	166.21	2120.31
					3/22/2006	2286.52	164.92	2121.60
					4/21/2006	2286.52	164.72	2121.80
					5/23/2006	2286.52	165.28	2121.24
					6/29/2006	2286.52	166.26	2120.26
					7/27/2006	2286.52	166.98	2119.54
					8/24/2006	2286.52	166.98	2119.54
					10/6/2006	2286.52	167.16	2119.36
					11/8/2006	2286.52	167.19	2119.33
					12/12/2006	2286.52	167.28	2119.24
					1/10/2007	2286.52	167.18	2119.34
					2/16/2007	2286.52	166.75	2119.77
					3/15/2007	2286.52	166.56	2119.96
					4/16/2007	2286.52	166.55	2119.97
					5/17/2007	2286.52	166.98	2119.54
					6/20/2007	2286.52	167.28	2119.24
					7/25/2007	2286.52	168.45	2118.07
					8/31/2007	2286.52	169.15	2117.37
					10/15/2007	2286.52	168.84	2117.68
					11/28/2007	2286.52	168.37	2118.15
					12/28/2007	2286.52	168.29	2118.23
					1/30/2008	2286.52	166.84	2119.68
					2/27/2008	2286.52	166.43	2120.09
					3/26/2008	2286.52	166.12	2120.40
					5/30/2008	2286.52	165.74	2120.78
					6/25/2008	2286.52	166.31	2120.21
					9/24/2008	2286.52	166.63	2119.89
					10/8/2008	2286.52	166.34	2120.18
					10/5/2010	2286.52	169.90	2116.62
					12/5/2011	2286.52	171.92	2114.60
					10/8/2012	2286.52	173.91	2112.61
					5/8/2014	2286.52	175.75	2110.77
					3/19/2015	2286.52	173.82	2112.70
IRA-12-70	61487	55-586370	P	60-70	6/28/2001	2284.29	68.82	2215.47
					9/27/2001	2284.29	68.82	2215.47
					12/13/2001	2284.29	69.04	2215.25
					3/5/2002	2284.29	69.36	2214.93
					9/11/2002	2284.29	70	2214.29
					3/5/2004	2284.29	68.73	2215.56
					5/19/2004	2286.48	67.91	2218.57
					12/7/2004	2286.48	69.02	2217.46
					2/8/2005	2286.48	68.81	2217.67
					3/7/2005	2286.48	68.23	2218.25
					3/30/2005	2286.48	67.68	2218.8
					5/6/2005	2286.48	68.21	2218.27
					9/29/2005	2286.31	67.21	2219.10
					10/20/2005	2286.31	63.71	2222.60
					11/16/2005	2286.31	68.36	2217.95
					12/15/2005	2286.31	68.60	2217.71
					1/19/2006	2286.31	68.05	2218.26
					2/14/2006	2286.31	68.72	2217.59
					3/22/2006	2286.31	69.01	2217.30
					8/24/2006	2286.31	66.75	2219.56
					10/6/2006	2286.31	66.67	2219.64
					11/8/2006	2286.31	66.54	2219.77
					12/12/2006	2286.31	66.62	2219.69
					1/10/2007	2286.31	68.52	2217.79
					2/16/2007	2286.31	68.81	2217.50
					3/15/2007	2286.31	68.89	2217.42
					4/16/2007	2286.31	68.81	2217.50
					5/17/2007	2286.31	68.95	2217.36
					6/20/2007	2286.31	68.84	2217.47
					7/25/2007	2286.31	68.91	2217.40

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-12-70	61487	55-586370	P	60-70	8/31/2007	2286.31	66.89	2219.42
					10/15/2007	2286.31	67.50	2218.81
					11/28/2007	2286.31	68.56	2217.75
					12/28/2007	2286.31	68.45	2217.86
					1/30/2008	2286.31	66.71	2219.60
					2/27/2008	2286.31	67.89	2218.42
					3/26/2008	2286.31	67.40	2218.91
					4/1/2008	2286.31	67.40	2218.91
					5/30/2008	2286.31	68.57	2217.74
					6/25/2008	2286.31	68.77	2217.54
					9/24/2008	2286.31	67.76	2218.55
					10/8/2008	2286.31	67.08	2219.23
					11/17/2008	2286.31	68.10	2218.21
					10/5/2010	2286.31	68.10	2218.21
					12/5/2011	2286.31	68.23	2218.08
					10/8/2012	2286.31	68.49	2217.82
					5/7/2014	2286.31	68.11	2218.20
					3/11/2015	2286.31	68.50	2217.81
IRA-13-210	61507	55-586430	R	150-210	6/28/2001	2301.64	170.38	2131.26
					9/27/2001	2301.64	172.89	2128.75
					12/17/2001	2301.64	172.27	2129.37
					3/7/2002	2301.64	173.61	2128.03
					4/30/2002	2301.64	172.13	2129.51
					9/11/2002	2301.64	176.08	2125.56
					1/6/2003	2301.64	176.67	2124.97
					5/5/2003	2301.64	177.23	2124.41
					3/2/2004	2301.64	178.85	2122.79
					5/24/2004	2303.83	180.32	2123.51
					12/7/2004	2303.83	185.12	2118.71
					1/7/2005	2303.83	184.4	2119.43
					2/8/2005	2303.83	183.67	2120.16
					3/7/2005	2303.83	183.14	2120.69
					3/30/2005	2303.83	183.05	2120.78
					3/31/2005	2303.83	183.2	2120.63
					5/6/2005	2303.83	182.41	2121.42
					9/29/2005	2303.87	185.28	2118.59
					10/19/2005	2303.87	185.58	2118.29
					11/16/2005	2303.87	185.43	2118.44
					12/15/2005	2303.87	184.55	2119.32
					1/19/2006	2303.87	184.20	2119.67
					2/14/2006	2303.87	184.32	2119.55
					3/22/2006	2303.87	183.09	2120.78
					4/21/2006	2303.87	182.49	2121.38
					5/23/2006	2303.87	183.67	2120.20
					6/29/2006	2303.87	184.56	2119.31
					7/27/2006	2303.87	185.42	2118.45
					8/24/2006	2303.87	185.45	2118.42
					10/6/2006	2303.87	185.51	2118.36
					11/8/2006	2303.87	185.12	2118.75
					12/12/2006	2303.87	185.32	2118.55
					1/10/2007	2303.87	185.61	2118.26
					2/16/2007	2303.87	184.88	2118.99
					3/15/2007	2303.87	184.68	2119.19
					4/16/2007	2303.87	185.00	2118.87
					5/17/2007	2303.87	185.08	2118.79
					6/20/2007	2303.87	185.58	2118.29
					7/25/2007	2303.87	186.53	2117.34
					8/31/2007	2303.87	187.29	2116.58
					10/15/2007	2303.87	187.33	2116.54
					11/28/2007	2303.87	186.58	2117.29
					12/28/2007	2303.87	186.77	2117.10
					1/31/2008	2303.87	185.80	2118.07
					2/27/2008	2303.87	184.98	2118.89
					3/26/2008	2303.87	184.11	2119.76
					4/21/2008	2303.87	183.79	2120.08
					5/30/2008	2303.87	184.22	2119.65
					6/25/2008	2303.87	184.23	2119.64
					9/24/2008	2303.87	184.53	2119.34
					10/8/2008	2303.87	184.36	2119.51

Appendix B
Historical Water Level Data
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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-13-210	61507	55-586430	R	150-210	11/6/2008	2303.87	183.45	2120.42
IRA-13-210					10/5/2010	2303.87	187.27	2116.60
IRA-13-210					12/5/2011	2303.87	189.24	2114.63
IRA-13-210					10/8/2012	2303.87	191.01	2112.86
IRA-13-210					5/7/2014	2303.87	193.06	2110.81
IRA-13-210					3/19/2015	2303.87	191.47	2112.40
IRA-14	--	55-586502	R	160-300	9/28/2001	2295.32	161.57	2133.75
					9/28/2001	2295.32	164.57	2130.75
					9/28/2001	2295.32	164.98	2130.34
					9/28/2001	2295.32	166.52	2128.80
					9/28/2001	2295.32	165.03	2130.29
					12/11/2001	2295.32	162.73	2132.59
					12/11/2001	2295.32	153.17	2142.15
					12/11/2001	2295.32	166.99	2128.33
					12/11/2001	2295.32	166.79	2128.53
					12/11/2001	2295.32	166.46	2128.86
					3/5/2002	2295.32	165.11	2130.21
					3/5/2002	2295.32	163.16	2132.16
					3/5/2002	2295.32	164.84	2130.48
					3/5/2002	2295.32	164.56	2130.76
					3/5/2002	2295.32	164.39	2130.93
					4/26/2002	2295.32	164.87	2130.45
					4/26/2002	2295.32	165.08	2130.24
					4/26/2002	2295.32	163.86	2131.46
					4/26/2002	2295.32	165	2130.32
					4/26/2002	2295.32	151.38	2143.94
					9/12/2002	2295.32	169.45	2125.87
					9/12/2002	2295.32	167	2128.32
					9/12/2002	2295.32	153.07	2142.25
					9/12/2002	2295.32	169.13	2126.19
					9/12/2002	2295.32	167.95	2127.37
					1/8/2003	2295.32	170.51	2124.81
					1/8/2003	2295.32	168.77	2126.55
					1/8/2003	2295.32	169.42	2125.90
					1/8/2003	2295.32	169.72	2125.60
					1/8/2003	2295.32	159.39	2135.93
IRA-14-1	--	55-586502	R	160-170	5/8/2003	2298.14	169.7	2128.44
IRA-14-1					3/8/2004	2298.14	172.68	2125.46
IRA-14-2	61604	55-586502	R	190-200	5/8/2003	2298.12	161.91	2136.21
					3/8/2004	2298.12	172.65	2125.47
					5/26/2004	2298.12	172.41	2125.71
					12/7/2004	2298.12	178.57	2119.55
					1/7/2005	2298.12	172.07	2126.05
					2/8/2005	2298.12	169.74	2128.38
					3/7/2005	2298.12	169.33	2128.79
					3/30/2005	2298.12	169.31	2128.81
					3/31/2005	2298.12	169.31	2128.81
					5/6/2005	2298.12	173.97	2124.15
					9/30/2005	2297.55	175.98	2121.57
					10/26/2005	2297.55	173.71	2123.84
					11/16/2005	2297.55	178.75	2118.80
					12/15/2005	2297.55	178.42	2119.13
					1/19/2006	2297.55	178.21	2119.34
					2/14/2006	2297.55	178.19	2119.36
					3/22/2006	2297.55	176.42	2121.13
					4/21/2006	2297.55	176.35	2121.20
					5/23/2006	2297.55	176.24	2121.31
					6/29/2006	2297.55	178.39	2119.16
					7/27/2006	2297.55	179.04	2118.51
					8/24/2006	2297.55	178.95	2118.60
					10/6/2006	2297.55	179.17	2118.38
					11/8/2006	2297.55	178.66	2118.89
					12/12/2006	2297.55	178.71	2118.84
					1/10/2007	2297.55	179.29	2118.26
					2/16/2007	2297.55	178.57	2118.98
					3/15/2007	2297.55	178.40	2119.15
					4/24/2007	2297.55	178.91	2118.64
					5/17/2007	2297.55	178.89	2118.66
					6/21/2007	2297.55	179.11	2118.44

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-14-2	61604	55-586502	R	190-200	7/25/2007	2297.55	180.80	2116.75
					8/31/2007	2297.55	179.40	2118.15
					10/15/2007	2297.55	180.98	2116.57
					11/29/2007	2297.55	180.13	2117.42
					12/28/2007	2297.55	180.54	2117.01
					1/31/2008	2297.55	178.21	2119.34
					2/27/2008	2297.55	178.31	2119.24
					3/26/2008	2297.55	177.82	2119.73
					4/21/2008	2297.55	171.31	2126.24
					5/30/2008	2297.55	173.53	2124.02
					6/25/2008	2297.55	177.33	2120.22
					9/24/2008	2297.55	178.37	2119.18
					10/8/2008	2297.55	178.18	2119.37
					11/18/2008	2297.55	177.26	2120.29
					10/8/2012	2297.55	184.79	2112.76
					5/8/2014	2297.55	187.62	2109.93
IRA-14-3	61605	55-586502	R	230-240	5/8/2003	2298.09	167.95	2130.14
					3/8/2004	2298.09	161.04	2137.05
					5/26/2004	2298.09	169.52	2128.57
					12/7/2004	2298.09	178.29	2119.8
					1/7/2005	2298.09	172.68	2125.41
					2/8/2005	2298.09	172.1	2125.99
					3/7/2005	2298.09	172.18	2125.91
					3/30/2005	2298.09	172.16	2125.93
					3/31/2005	2298.09	172.13	2125.96
					5/6/2005	2298.09	175.69	2122.4
					9/30/2005	2297.55	178.86	2118.69
					10/26/2005	2297.55	178.75	2118.80
					11/16/2005	2297.55	178.74	2118.81
					12/15/2005	2297.55	178.34	2119.21
					1/19/2006	2297.55	178.32	2119.23
					2/14/2006	2297.55	178.38	2119.17
					3/22/2006	2297.55	177.82	2119.73
					4/21/2006	2297.55	176.45	2121.10
					5/23/2006	2297.55	175.22	2122.33
					6/29/2006	2297.55	178.34	2119.21
					7/27/2006	2297.55	178.98	2118.57
					8/24/2006	2297.55	178.93	2118.62
					10/6/2006	2297.55	179.08	2118.47
					11/8/2006	2297.55	178.39	2119.16
					12/12/2006	2297.55	178.71	2118.84
					1/10/2007	2297.55	179.29	2118.26
					2/16/2007	2297.55	178.57	2118.98
					3/15/2007	2297.55	178.40	2119.15
					4/24/2007	2297.55	178.91	2118.64
					5/17/2007	2297.55	178.96	2118.59
					6/21/2007	2297.55	179.15	2118.40
					7/25/2007	2297.55	180.85	2116.70
					8/31/2007	2297.55	181.23	2116.32
					10/15/2007	2297.55	181.00	2116.55
					11/29/2007	2297.55	178.41	2119.14
					12/28/2007	2297.55	178.56	2118.99
					1/31/2008	2297.55	177.98	2119.57
					2/27/2008	2297.55	178.22	2119.33
					3/26/2008	2297.55	177.72	2119.83
					4/21/2008	2297.55	175.15	2122.40
					5/30/2008	2297.55	175.25	2122.30
					6/25/2008	2297.55	175.25	2122.30
					9/24/2008	2297.55	172.70	2124.85
					10/8/2008	2297.55	174.98	2122.57
					11/18/2008	2297.55	174.58	2122.97
					10/8/2012	2297.55	185.41	2112.14
					5/8/2014	2297.55	187.61	2109.94
IRA-14-4	61606	55-586502	R	260-270	5/8/2003	2298.07	170.28	2127.79
					3/8/2004	2298.07	171.95	2126.12
					5/26/2004	2298.07	174.1	2123.97
					12/7/2004	2298.07	177.95	2120.12
					1/7/2005	2298.07	161.79	2136.28
					2/8/2005	2298.07	160.94	2137.13

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-14-4	61606	55-586502	R	260-270	3/7/2005	2298.07	160.89	2137.18
					3/30/2005	2298.07	160.88	2137.19
					3/31/2005	2298.07	160.89	2137.18
					5/6/2005	2298.07	176.01	2122.06
					9/30/2005	2297.55	179.06	2118.49
					10/26/2005	2297.55	178.70	2118.85
					11/16/2005	2297.55	178.41	2119.14
					12/15/2005	2297.55	178.03	2119.52
					1/19/2006	2297.55	178.11	2119.44
					2/14/2006	2297.55	178.13	2119.42
					3/22/2006	2297.55	176.02	2121.53
					4/21/2006	2297.55	175.87	2121.68
					5/23/2006	2297.55	176.88	2120.67
					6/29/2006	2297.55	177.11	2120.44
					7/27/2006	2297.55	178.32	2119.23
					8/24/2006	2297.55	178.41	2119.14
					10/6/2006	2297.55	178.74	2118.81
					11/8/2006	2297.55	177.98	2119.57
					12/12/2006	2297.55	178.32	2119.23
					1/10/2007	2297.55	179.05	2118.50
					2/16/2007	2297.55	178.71	2118.84
					3/15/2007	2297.55	178.88	2118.67
					4/24/2007	2297.55	178.42	2119.13
					5/17/2007	2297.55	179.07	2118.48
					6/21/2007	2297.55	179.10	2118.45
					7/25/2007	2297.55	179.35	2118.20
					8/31/2007	2297.55	179.41	2118.14
					10/15/2007	2297.55	179.48	2118.07
					11/29/2007	2297.55	180.23	2117.32
					12/28/2007	2297.55	180.33	2117.22
					1/31/2008	2297.55	177.96	2119.59
					2/27/2008	2297.55	178.18	2119.37
					3/26/2008	2297.55	178.12	2119.43
					4/21/2008	2297.55	178.74	2118.81
					5/30/2008	2297.55	178.29	2119.26
					6/25/2008	2297.55	178.79	2118.76
					9/24/2008	2297.55	179.12	2118.43
					10/8/2008	2297.55	178.89	2118.66
					11/18/2008	2297.55	177.41	2120.14
					10/8/2012	2297.55	184.99	2112.56
					5/8/2014	2297.55	187.99	2109.56
IRA-14-5	61607	55-586502	R	290-300	5/8/2003	2298.10	170.21	2127.89
					3/8/2004	2298.10	171.75	2126.35
					5/26/2004	2298.10	168.89	2129.21
					12/7/2004	2298.10	177.83	2120.27
					1/7/2005	2298.10	165.95	2132.15
					2/8/2005	2298.10	167.81	2130.29
					3/7/2005	2298.10	169.16	2128.94
					3/30/2005	2298.10	169.61	2128.49
					3/31/2005	2298.10	169.6	2128.5
					5/6/2005	2298.10	176.1	2122
					9/30/2005	2297.55	179.89	2117.66
					10/26/2005	2297.55	178.50	2119.05
					11/16/2005	2297.55	178.10	2119.45
					12/15/2005	2297.55	177.80	2119.75
					1/19/2006	2297.55	177.91	2119.64
					2/14/2006	2297.55	177.94	2119.61
					3/22/2006	2297.55	175.06	2122.49
					4/21/2006	2297.55	175.95	2121.60
					5/23/2006	2297.55	176.49	2121.06
					6/29/2006	2297.55	177.36	2120.19
					7/27/2006	2297.55	178.43	2119.12
					8/24/2006	2297.55	178.32	2119.23
					10/6/2006	2297.55	178.75	2118.80
					11/8/2006	2297.55	178.32	2119.23
					12/12/2006	2297.55	178.86	2118.69
					1/10/2007	2297.55	179.64	2117.91
					2/16/2007	2297.55	178.72	2118.83
					3/15/2007	2297.55	179.22	2118.33

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-14-5	61607	55-586502	R	290-300	4/24/2007	2297.55	179.77	2117.78
					5/17/2007	2297.55	172.06	2125.49
					6/21/2007	2297.55	174.54	2123.01
					7/25/2007	2297.55	173.00	2124.55
					8/31/2007	2297.55	173.35	2124.20
					10/15/2007	2297.55	173.57	2123.98
					11/29/2007	2297.55	175.68	2121.87
					12/28/2007	2297.55	173.90	2123.65
					1/31/2008	2297.55	177.89	2119.66
					2/27/2008	2297.55	178.21	2119.34
					3/26/2008	2297.55	177.92	2119.63
					4/21/2008	2297.55	178.18	2119.37
					5/30/2008	2297.55	177.87	2119.68
					6/25/2008	2297.55	177.56	2119.99
					9/24/2008	2297.55	177.47	2120.08
					10/8/2008	2297.55	176.68	2120.87
					11/18/2008	2297.55	176.37	2121.18
					10/8/2012	2297.55	184.77	2112.78
					5/8/2014	2297.55	187.28	2110.27
IRA-15	61483	55-586501	P	91-101	6/28/2001	2294.46	100.72	2193.74
					3/26/2008	2296.62	100.65	2195.97
					4/21/2008	2296.62	100.75	2195.87
					5/30/2008	2296.62	100.51	2196.11
					9/24/2008	2296.62	100.67	2195.95
					10/6/2010	2296.62	100.69	2195.93
					12/5/2011	2296.62	100.73	2195.89
					10/8/2012	2296.62	100.43	2196.19
					5/7/2014	2296.62	100.50	2196.12
					3/6/2015	2296.62	100.40	2196.22
IRA-16	61482	55-586371	P	66-76	6/26/2001	2290.73	71.92	2218.81
					9/25/2001	2290.73	70.58	2220.15
					12/13/2001	2290.73	70.83	2219.90
					3/6/2002	2290.73	72.39	2218.34
					4/30/2002	2290.73	72.25	2218.48
					9/13/2002	2290.73	71.78	2218.95
					1/7/2003	2290.73	71.72	2219.01
					5/7/2003	2290.73	71.89	2218.84
					3/2/2004	2290.73	71.91	2218.82
					5/19/2004	2292.94	71.72	2221.22
					12/7/2004	2292.94	71.98	2220.96
					1/7/2005	2292.94	72.01	2220.93
					2/8/2005	2292.94	71.25	2221.69
					3/7/2005	2292.94	71.45	2221.49
					3/30/2005	2292.94	71.02	2221.92
					5/6/2005	2292.94	71.98	2220.96
					9/29/2005	2293.00	71.61	2221.39
					10/20/2005	2293.00	71.58	2221.42
					11/16/2005	2293.00	70.15	2222.85
					12/15/2005	2293.00	70.11	2222.89
					1/19/2006	2293.00	72.16	2220.84
					2/14/2006	2293.00	72.03	2220.97
					3/22/2006	2293.00	71.88	2221.12
					4/21/2006	2293.00	71.80	2221.20
					5/23/2006	2293.00	71.65	2221.35
					6/29/2006	2293.00	71.71	2221.29
					7/27/2006	2293.00	72.20	2220.80
					8/24/2006	2293.00	69.09	2223.91
					10/6/2006	2293.00	69.39	2223.61
					11/8/2006	2293.00	71.28	2221.72
					12/12/2006	2293.00	70.85	2222.15
					1/10/2007	2293.00	71.25	2221.75
					2/16/2007	2293.00	71.59	2221.41
					3/15/2007	2293.00	71.92	2221.08
					4/16/2007	2293.00	72.49	2220.51
					5/17/2007	2293.00	72.66	2220.34
					6/20/2007	2293.00	71.26	2221.74
					7/25/2007	2293.00	71.19	2221.81
					8/31/2007	2293.00	69.20	2223.80
					10/15/2007	2293.00	74.59	2218.41

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-16	61482	55-586371	P	66-76	11/28/2007	2293.00	71.44	2221.56
					12/31/2007	2293.00	71.50	2221.50
					1/30/2008	2293.00	71.71	2221.29
					2/27/2008	2293.00	71.21	2221.79
					3/26/2008	2293.00	71.42	2221.58
					4/3/2008	2293.00	71.42	2221.58
					5/30/2008	2293.00	71.83	2221.17
					6/25/2008	2293.00	71.90	2221.10
					9/25/2008	2293.00	70.94	2222.06
					10/8/2008	2293.00	71.65	2221.35
					11/10/2008	2293.00	71.39	2221.61
					10/6/2010	2293.00	71.78	2221.22
					12/5/2011	2293.00	72.15	2220.85
					10/8/2012	2293.00	71.83	2221.17
					5/8/2014	2293.00	72.30	2220.70
					3/9/2015	2293.00	71.70	2221.30
IRA-17	61481	55-596077	P	65-75	5/6/2003	2288.05	73.16	2214.89
					3/3/2004	2288.05	72.69	2215.36
					5/19/2004	2290.24	71.68	2218.56
					12/7/2004	2290.24	72.69	2217.55
					1/7/2005	2290.24	72.86	2217.38
					2/8/2005	2290.24	72.71	2217.53
					3/7/2005	2290.24	72.58	2217.66
					3/30/2005	2290.24	71.7	2218.54
					5/6/2005	2290.24	71.89	2218.35
					9/29/2005	2290.26	71.98	2218.28
					10/20/2005	2290.26	72.49	2217.77
					11/16/2005	2290.26	72.68	2217.58
					12/15/2005	2290.26	72.52	2217.74
					1/19/2006	2290.26	72.98	2217.28
					2/14/2006	2290.26	72.96	2217.30
					3/22/2006	2290.26	73.18	2217.08
					4/21/2006	2290.26	73.14	2217.12
					5/23/2006	2290.26	73.18	2217.08
					6/29/2006	2290.26	73.19	2217.07
					7/27/2006	2290.26	73.29	2216.97
					8/24/2006	2290.26	72.76	2217.50
					10/6/2006	2290.26	72.54	2217.72
					11/8/2006	2290.26	72.74	2217.52
					12/12/2006	2290.26	72.81	2217.45
					1/10/2007	2290.26	73.18	2217.08
					2/16/2007	2290.26	73.31	2216.95
					3/15/2007	2290.26	73.39	2216.87
					4/16/2007	2290.26	73.45	2216.81
					5/17/2007	2290.26	73.49	2216.77
					6/20/2007	2290.26	73.13	2217.13
					7/25/2007	2290.26	73.14	2217.12
					8/31/2007	2290.26	71.93	2218.33
					10/15/2007	2290.26	74.58	2215.68
					11/28/2007	2290.26	72.85	2217.41
					12/31/2007	2290.26	72.73	2217.53
					1/30/2008	2290.26	72.74	2217.52
					2/27/2008	2290.26	72.77	2217.49
					3/26/2008	2290.26	73.00	2217.26
					4/3/2008	2290.26	73.00	2217.26
					5/30/2008	2290.26	73.00	2217.26
					6/25/2008	2290.26	72.95	2217.31
					9/25/2008	2290.26	70.05	2220.21
					10/8/2008	2290.26	70.31	2219.95
					11/7/2008	2290.26	70.69	2219.57
					10/5/2010	2290.26	71.92	2218.34
					12/5/2011	2290.26	73.09	2217.17
					10/8/2012	2290.26	72.65	2217.61
					5/8/2014	2290.26	73.68	2216.58
					3/9/2015	2290.26	72.40	2217.86
IRA-18	61480	55-596078	P	65.5-75.5	3/30/2005	2290.73	75.35	2215.38
					5/30/2008	2292.96	74.88	2218.08
					6/25/2008	2292.96	74.88	2218.08
					9/25/2008	2292.96	73.29	2219.67

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-18	61480	55-596078	P	65.5-75.5	10/8/2008	2292.96	74.71	2218.25
					11/7/2008	2292.96	74.75	2218.21
					10/5/2010	2292.96	75.14	2217.82
					12/5/2011	2292.96	74.75	2218.21
					10/8/2012	2292.96	75.14	2217.82
					5/8/2014	2292.96	74.75	2218.21
					3/9/2015	2292.96	75.30	2217.66
IRA-19	61479	55-596079	P	62-72	5/6/2003	2291.25	71.29	2219.96
					3/3/2004	2291.25	69.11	2222.14
					5/19/2004	2293.44	69.51	2223.93
					12/7/2004	2293.44	68.97	2224.47
					1/7/2005	2293.44	69.67	2223.77
					2/8/2005	2293.44	68.96	2224.48
					3/7/2005	2293.44	69.09	2224.35
					3/30/2005	2293.44	69	2224.44
					5/6/2005	2293.44	70.14	2223.3
					9/29/2005	2293.49	68.15	2225.34
					10/20/2005	2293.49	68.54	2224.95
					11/16/2005	2293.49	68.71	2224.78
					12/15/2005	2293.49	68.61	2224.88
					1/19/2006	2293.49	69.03	2224.46
					2/14/2006	2293.49	68.88	2224.61
					3/22/2006	2293.49	69.40	2224.09
					4/21/2006	2293.49	69.55	2223.94
					5/23/2006	2293.49	69.48	2224.01
					6/29/2006	2293.49	69.65	2223.84
					7/27/2006	2293.49	69.45	2224.04
					8/24/2006	2293.49	69.29	2224.20
					10/6/2006	2293.49	69.35	2224.14
					11/8/2006	2293.49	69.89	2223.60
					12/12/2006	2293.49	69.95	2223.54
					1/10/2007	2293.49	64.32	2229.17
					2/16/2007	2293.49	64.56	2228.93
					3/15/2007	2293.49	64.55	2228.94
					4/16/2007	2293.49	64.85	2228.64
					5/17/2007	2293.49	64.67	2228.82
					6/20/2007	2293.49	64.71	2228.78
					7/25/2007	2293.49	65.00	2228.49
					8/31/2007	2293.49	65.29	2228.20
					10/15/2007	2293.49	65.30	2228.19
					11/28/2007	2293.49	65.15	2228.34
					12/31/2007	2293.49	65.02	2228.47
					1/30/2008	2293.49	66.18	2227.31
					2/27/2008	2293.49	66.70	2226.79
					3/26/2008	2293.49	67.05	2226.44
					5/30/2008	2293.49	67.76	2225.73
					6/25/2008	2293.49	67.71	2225.78
					9/25/2008	2293.49	67.91	2225.58
					10/8/2008	2293.49	67.97	2225.52
					11/10/2008	2293.49	67.98	2225.51
					10/5/2010	2293.49	70.66	2222.83
					12/5/2011	2293.49	69.22	2224.27
					10/8/2012	2293.49	68.50	2224.99
					5/8/2014	2293.49	71.75	2221.74
					3/9/2015	2293.49	71.80	2221.69
IRA-2	57690	55-529840	R	150-230	1/1/1992	2293.89	157.74	2136.15
					2/1/1992	2293.89	158.72	2135.17
					3/1/1992	2293.89	156.67	2137.22
					4/1/1992	2293.89	156.44	2137.45
					5/1/1992	2293.89	156.75	2137.14
					6/1/1992	2293.89	157.32	2136.57
					4/21/1993	2293.89	151.94	2141.95
					1/11/1995	2293.89	154.67	2139.22
					2/26/1996	2293.89	154.48	2139.41
					1/28/1997	2293.89	159.58	2134.31
					3/25/1997	2293.89	158.83	2135.06
					11/24/1997	2293.89	162.63	2131.26
					4/21/1998	2293.89	158.96	2134.93
					5/27/1998	2293.89	159.15	2134.74

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-2	57690	55-529840	R	150-230	6/19/1998	2293.89	159.68	2134.21
					5/19/1999	2293.89	160.28	2133.61
					6/21/1999	2293.89	161.41	2132.48
					7/15/1999	2293.89	161.78	2132.11
					8/19/1999	2293.89	161.71	2132.18
					9/16/1999	2293.89	161.89	2132
					10/21/1999	2293.89	161.77	2132.12
					11/18/1999	2293.89	161.76	2132.13
					12/16/1999	2293.89	161.23	2132.66
					1/20/2000	2293.89	160.56	2133.33
					2/17/2000	2293.89	160.34	2133.55
					3/17/2000	2293.89	160.24	2133.65
					4/20/2000	2293.89	160.24	2133.65
					5/18/2000	2293.89	161.02	2132.87
					9/26/2000	2293.89	164.21	2129.68
					12/19/2000	2293.89	163.53	2130.36
					3/13/2001	2293.89	160.43	2133.46
					6/28/2001	2293.89	162.72	2131.17
					9/28/2001	2293.89	165.38	2128.51
					12/13/2001	2293.89	165.93	2127.96
					3/7/2002	2293.89	163.46	2130.43
					4/30/2002	2293.89	163.72	2130.17
					9/13/2002	2293.89	168.32	2125.57
					1/7/2003	2293.89	168.08	2125.81
					5/8/2003	2293.89	169.53	2124.36
					3/5/2004	2293.89	171.42	2122.47
					5/26/2004	2296.08	172.89	2123.19
					12/7/2004	2296.08	177.19	2118.89
					1/7/2005	2296.08	176.49	2119.59
					2/8/2005	2296.08	175.77	2120.31
					3/7/2005	2296.08	175.15	2120.93
					3/30/2005	2296.08	174.94	2121.14
					3/31/2005	2296.08	175.12	2120.96
					5/6/2005	2296.08	174.41	2121.67
					9/30/2005	2295.99	177.47	2118.52
					10/26/2005	2295.99	177.58	2118.41
					11/16/2005	2295.99	177.33	2118.66
					12/15/2005	2295.99	176.99	2119.00
					1/19/2006	2295.99	176.91	2119.08
					2/14/2006	2295.99	176.88	2119.11
					3/22/2006	2295.99	175.42	2120.57
					4/21/2006	2295.99	175.11	2120.88
					5/23/2006	2295.99	176.04	2119.95
					6/29/2006	2295.99	176.89	2119.10
					7/27/2006	2295.99	177.75	2118.24
					8/24/2006	2295.99	177.73	2118.26
					10/6/2006	2295.99	177.95	2118.04
					11/8/2006	2295.99	177.89	2118.10
					12/12/2006	2295.99	177.73	2118.26
					1/10/2007	2295.99	177.78	2118.21
					2/16/2007	2295.99	177.02	2118.97
					3/15/2007	2295.99	177.33	2118.66
					4/16/2007	2295.99	177.01	2118.98
					5/17/2007	2295.99	177.23	2118.76
					6/21/2007	2295.99	177.44	2118.55
					7/25/2007	2295.99	179.02	2116.97
					8/31/2007	2295.99	179.49	2116.50
					10/15/2007	2295.99	179.44	2116.55
					11/29/2007	2295.99	178.93	2117.06
					12/28/2007	2295.99	178.84	2117.15
					1/31/2008	2295.99	176.23	2119.76
					2/27/2008	2295.99	176.78	2119.21
					3/26/2008	2295.99	176.27	2119.72
					4/21/2008	2295.99	176.14	2119.85
					5/30/2008	2295.99	177.13	2118.86
					6/25/2008	2295.99	177.42	2118.57
					9/24/2008	2295.99	177.05	2118.94
					10/8/2008	2295.99	176.92	2119.07
					11/13/2008	2295.99	175.75	2120.24

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-2	57690	55-529840	R	150-230	10/6/2010	2295.99	179.93	2116.06
					12/5/2011	2295.99	182.25	2113.74
					10/8/2012	2295.99	184.23	2111.76
					5/7/2014	2295.99	186.12	2109.87
					3/9/2015	2295.99	184.11	2111.88
IRA-20	61478	55-596080	P	75-85	12/7/2004	2295.72	83.8	2211.92
					1/7/2005	2295.72	84.25	2211.47
					2/8/2005	2295.72	83.09	2212.63
					3/7/2005	2295.72	83.04	2212.68
					3/30/2005	2295.72	83.79	2211.93
					5/6/2005	2295.72	84.49	2211.23
					9/29/2005	2295.79	82.20	2213.59
					10/20/2005	2295.79	81.76	2214.03
					11/16/2005	2295.79	81.69	2214.10
					12/15/2005	2295.79	83.41	2212.38
					1/19/2006	2295.79	84.25	2211.54
					2/14/2006	2295.79	83.98	2211.81
					3/22/2006	2295.79	84.61	2211.18
					5/23/2006	2295.79	84.97	2210.82
					6/29/2006	2295.79	84.96	2210.83
					7/27/2006	2295.79	85.03	2210.76
					8/24/2006	2295.79	84.96	2210.83
					11/8/2006	2295.79	85.03	2210.76
					12/12/2006	2295.79	84.98	2210.81
					1/10/2007	2295.79	85.09	2210.70
					2/16/2007	2295.79	85.09	2210.70
					3/15/2007	2295.79	85.05	2210.74
					6/20/2007	2295.79	84.62	2211.17
					7/25/2007	2295.79	84.63	2211.16
					10/15/2007	2295.79	84.21	2211.58
					11/28/2007	2295.79	83.97	2211.82
					12/31/2007	2295.79	83.85	2211.94
					1/30/2008	2295.79	84.55	2211.24
					3/26/2008	2295.79	84.73	2211.06
					4/3/2008	2295.79	84.73	2211.06
					5/30/2008	2295.79	84.67	2211.12
					6/25/2008	2295.79	84.68	2211.11
					9/25/2008	2295.79	84.56	2211.23
					10/5/2010	2295.79	84.63	2211.16
					10/8/2012	2295.79	83.78	2212.01
					5/8/2014	2295.79	84.67	2211.12
					3/9/2015	2295.79	85.09	2210.70
IRA-21	61477	55-596081	P	63.5-73.5	5/6/2003	2285.80	70.17	2215.63
					3/5/2004	2285.80	66.81	2218.99
					5/19/2004	2287.99	66.47	2221.52
					12/7/2004	2287.99	67.01	2220.98
					1/7/2005	2287.99	67.95	2220.04
					2/8/2005	2287.99	67.18	2220.81
					3/7/2005	2287.99	66.9	2221.09
					3/30/2005	2287.99	66.6	2221.39
					5/6/2005	2287.99	70.75	2217.24
					9/29/2005	2288.03	66.04	2221.99
					10/25/2005	2288.03	66.52	2221.51
					11/16/2005	2288.03	68.90	2219.13
					12/15/2005	2288.03	67.38	2220.65
					1/19/2006	2288.03	67.14	2220.89
					2/14/2006	2288.03	67.28	2220.75
					3/22/2006	2288.03	67.35	2220.68
					4/21/2006	2288.03	70.25	2217.78
					5/23/2006	2288.03	68.07	2219.96
					6/29/2006	2288.03	67.50	2220.53
					7/27/2006	2288.03	67.42	2220.61
					8/24/2006	2288.03	66.70	2221.33
					10/6/2006	2288.03	66.43	2221.60
					11/8/2006	2288.03	66.67	2221.36
					12/12/2006	2288.03	66.71	2221.32
					1/10/2007	2288.03	67.24	2220.79
					2/16/2007	2288.03	67.31	2220.72
					3/15/2007	2288.03	69.39	2218.64

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-21	61477	55-596081	P	63.5-73.5	4/16/2007	2288.03	67.35	2220.68
					5/17/2007	2288.03	68.81	2219.22
					6/20/2007	2288.03	67.60	2220.43
					7/25/2007	2288.03	67.30	2220.73
					8/31/2007	2288.03	66.42	2221.61
					10/15/2007	2288.03	66.44	2221.59
					11/28/2007	2288.03	66.37	2221.66
					12/31/2007	2288.03	66.14	2221.89
					1/30/2008	2288.03	66.60	2221.43
					2/27/2008	2288.03	66.25	2221.78
					3/26/2008	2288.03	66.78	2221.25
					4/3/2008	2288.03	66.78	2221.25
					5/30/2008	2288.03	67.24	2220.79
					6/25/2008	2288.03	67.30	2220.73
					9/24/2008	2288.03	66.30	2221.73
					10/8/2008	2288.03	66.24	2221.79
					11/7/2008	2288.03	66.29	2221.74
					10/5/2010	2288.03	66.63	2221.40
					12/5/2011	2288.03	67.09	2220.94
					10/8/2012	2288.03	67.17	2220.86
					5/8/2014	2288.03	67.64	2220.39
					3/9/2015	2288.03	66.42	2221.61
IRA-22	61476	55-596082	P	61-71	5/6/2003	2286.53	67.37	2219.16
					3/5/2004	2286.53	65.71	2220.82
					5/20/2004	2288.72	65.55	2223.17
					12/7/2004	2288.72	66.13	2222.59
					1/7/2005	2288.72	63.75	2224.97
					2/8/2005	2288.72	64.97	2223.75
					3/7/2005	2288.72	65.03	2223.69
					3/30/2005	2288.72	65.35	2223.37
					5/6/2005	2288.72	66.48	2222.24
					9/29/2005	2288.79	65.48	2223.31
					10/27/2005	2288.79	65.73	2223.06
					11/16/2005	2288.79	66.70	2222.09
					12/15/2005	2288.79	66.13	2222.66
					1/19/2006	2288.79	66.28	2222.51
					2/14/2006	2288.79	66.27	2222.52
					3/22/2006	2288.79	64.98	2223.81
					5/23/2006	2288.79	66.66	2222.13
					6/29/2006	2288.79	66.54	2222.25
					7/27/2006	2288.79	66.58	2222.21
					8/24/2006	2288.79	65.39	2223.40
					10/6/2006	2288.79	65.45	2223.34
					11/8/2006	2288.79	65.25	2223.54
					12/12/2006	2288.79	65.37	2223.42
					1/10/2007	2288.79	66.22	2222.57
					2/16/2007	2288.79	65.48	2223.31
					3/15/2007	2288.79	66.56	2222.23
					4/16/2007	2288.79	66.56	2222.23
					5/17/2007	2288.79	66.81	2221.98
					6/20/2007	2288.79	65.94	2222.85
					7/25/2007	2288.79	66.32	2222.47
					8/31/2007	2288.79	65.48	2223.31
					10/15/2007	2288.79	65.65	2223.14
					11/28/2007	2288.79	65.46	2223.33
					12/31/2007	2288.79	65.50	2223.29
					1/30/2008	2288.79	65.64	2223.15
					2/27/2008	2288.79	64.63	2224.16
					3/26/2008	2288.79	65.63	2223.16
					4/3/2008	2288.79	65.63	2223.16
					5/30/2008	2288.79	66.35	2222.44
					6/25/2008	2288.79	66.48	2222.31
					9/25/2008	2288.79	65.35	2223.44
					10/8/2008	2288.79	65.30	2223.49
					11/10/2008	2288.79	66.57	2222.22
					10/6/2010	2288.79	66.00	2222.79
					12/5/2011	2288.79	66.16	2222.63

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-22	61476	55-596082	P	61-71	10/8/2012	2288.79	66.19	2222.60
					5/8/2014	2288.79	66.71	2222.08
					3/9/2015	2288.79	65.61	2223.18
IRA-23	61475	55-596075	P	69.5-79.5	1/10/2007	2291.92	78.16	2213.76
					4/16/2007	2291.92	78.18	2213.74
					7/25/2007	2291.92	78.06	2213.86
					8/31/2007	2291.92	77.95	2213.97
					10/15/2007	2291.92	78.99	2212.93
					11/28/2007	2291.92	77.86	2214.06
					12/31/2007	2291.92	77.90	2214.02
					1/30/2008	2291.92	77.99	2213.93
					2/27/2008	2291.92	78.03	2213.89
					6/25/2008	2291.92	78.14	2213.78
					10/8/2008	2291.92	77.99	2213.93
					10/6/2010	2291.92	78.84	2213.08
					12/5/2011	2291.92	78.69	2213.23
					10/8/2012	2291.92	78.73	2213.19
					3/19/2015	2291.92	78.69	2213.23
IRA-24	61601	55-900260	R	168-218	12/7/2004	2281.13	169.79	2111.34
					1/7/2005	2281.13	168.07	2113.06
					2/8/2005	2281.13	166.46	2114.67
					3/7/2005	2281.13	165.18	2115.95
					3/30/2005	2281.13	164.15	2116.98
					3/31/2005	2281.13	164.3	2116.83
					5/6/2005	2281.13	163.49	2117.64
					9/29/2005	2283.27	168.31	2114.96
					10/20/2005	2283.27	169.23	2114.04
					11/16/2005	2283.27	170.45	2112.82
					12/15/2005	2283.27	170.06	2113.21
					1/19/2006	2283.27	169.05	2114.22
					2/14/2006	2283.27	169.80	2113.47
					3/22/2006	2283.27	169.04	2114.23
					4/22/2006	2283.27	168.96	2114.31
					5/23/2006	2283.27	169.84	2113.43
					6/29/2006	2283.27	170.88	2112.39
					7/27/2006	2283.27	171.47	2111.80
					8/24/2006	2283.27	170.77	2112.50
					10/6/2006	2283.27	170.02	2113.25
					11/8/2006	2283.27	169.58	2113.69
					12/12/2006	2283.27	169.35	2113.92
					1/10/2007	2283.27	169.44	2113.83
					2/16/2007	2283.27	168.03	2115.24
					3/15/2007	2283.27	162.55	2120.72
					4/16/2007	2283.27	162.23	2121.04
					5/17/2007	2283.27	162.32	2120.95
					6/20/2007	2283.27	162.41	2120.86
					7/25/2007	2283.27	171.85	2111.42
					8/31/2007	2283.27	171.65	2111.62
					10/15/2007	2283.27	170.18	2113.09
					11/28/2007	2283.27	170.93	2112.34
					12/28/2007	2283.27	171.06	2112.21
					1/30/2008	2283.27	168.17	2115.10
					2/27/2008	2283.27	167.23	2116.04
					3/26/2008	2283.27	166.18	2117.09
					4/21/2008	2283.27	166.01	2117.26
					5/30/2008	2283.27	166.93	2116.34
					6/25/2008	2283.27	166.84	2116.43
					9/24/2008	2283.27	167.95	2115.32
					10/8/2008	2283.27	168.05	2115.22
					11/10/2008	2283.27	169.27	2114.00
					10/5/2010	2283.27	174.87	2108.40
					12/5/2011	2283.27	179.77	2103.50
					10/8/2012	2283.27	181.50	2101.77
					5/7/2014	2283.27	185.45	2097.82
					3/19/2015	2283.27	177.60	2105.67
IRA-25	61602	55-596369	R	170-240	6/5/2003	2301.76	183.48	2118.28
					6/23/2003	2301.76	184	2117.76
					3/3/2004	2301.76	183.9	2117.86
					5/27/2004	2303.96	187.02	2116.94

Appendix B
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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-25	61602	55-596369	R	170-240	12/7/2004	2303.96	189.47	2114.49
					1/7/2005	2303.96	188.45	2115.51
					2/8/2005	2303.96	187.57	2116.39
					3/7/2005	2303.96	186.49	2117.47
					3/30/2005	2303.96	185.88	2118.08
					3/31/2005	2303.96	185.96	2118
					5/6/2005	2303.96	185.15	2118.81
					9/29/2005	2303.88	189.26	2114.62
					10/19/2005	2303.88	188.94	2114.94
					11/16/2005	2303.88	188.78	2115.10
					12/15/2005	2303.88	188.21	2115.67
					1/19/2006	2303.88	187.68	2116.20
					2/14/2006	2303.88	187.98	2115.90
					4/23/2006	2303.88	187.72	2116.16
					5/23/2006	2303.88	187.81	2116.07
					6/29/2006	2303.88	185.83	2118.05
					7/27/2006	2303.88	190.27	2113.61
					8/24/2006	2303.88	190.52	2113.36
					10/6/2006	2303.88	189.72	2114.16
					11/8/2006	2303.88	189.13	2114.75
					12/12/2006	2303.88	189.36	2114.52
					1/10/2007	2303.88	189.51	2114.37
					2/16/2007	2303.88	187.70	2116.18
					3/15/2007	2303.88	187.63	2116.25
					5/17/2007	2303.88	188.71	2115.17
					6/20/2007	2303.88	189.63	2114.25
					7/25/2007	2303.88	190.76	2113.12
					8/31/2007	2303.88	190.34	2113.54
					10/15/2007	2303.88	190.27	2113.61
					11/28/2007	2303.88	189.87	2114.01
					12/28/2007	2303.88	189.73	2114.15
					1/30/2008	2303.88	185.23	2118.65
					2/27/2008	2303.88	186.89	2116.99
					3/26/2008	2303.88	185.97	2117.91
					4/21/2008	2303.88	185.57	2118.31
					5/30/2008	2303.88	184.56	2119.32
					6/25/2008	2303.88	185.68	2118.20
					9/25/2008	2303.88	186.61	2117.27
					10/8/2008	2303.88	186.53	2117.35
					11/10/2008	2303.88	186.30	2117.58
					10/5/2010	2303.88	191.30	2112.58
					12/5/2011	2303.88	194.51	2109.37
					10/8/2012	2303.88	196.91	2106.97
					5/7/2014	2303.88	199.89	2103.99
					3/19/2015	2303.88	197.38	2106.50
IRA-26	61603	55-596372	R	170-240	5/5/2003	2307.52	187.39	2120.13
					6/5/2003	2307.52	188.11	2119.41
					6/23/2003	2307.52	188.52	2119.00
					3/3/2004	2307.52	188.16	2119.36
					5/27/2004	2309.72	191.52	2118.2
					12/7/2004	2309.72	194.1	2115.62
					1/7/2005	2309.72	193.14	2116.58
					2/8/2005	2309.72	192.29	2117.43
					3/8/2005	2309.72	191.32	2118.4
					3/30/2005	2309.72	190.95	2118.77
					3/31/2005	2309.72	191.11	2118.61
					5/6/2005	2309.72	190.41	2119.31
					9/29/2005	2309.74	194.25	2115.49
					10/20/2005	2309.74	193.65	2116.09
					11/16/2005	2309.74	193.30	2116.44
					12/15/2005	2309.74	192.52	2117.22
					1/19/2006	2309.74	192.09	2117.65
					2/14/2006	2309.74	192.20	2117.54
					4/24/2006	2309.74	191.78	2117.96
					5/23/2006	2309.74	192.99	2116.75
					6/29/2006	2309.74	193.32	2116.42
					7/27/2006	2309.74	194.96	2114.78
					8/24/2006	2309.74	194.47	2115.27
					10/6/2006	2309.74	194.32	2115.42

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-26	61603	55-596372	R	170-240	11/8/2006	2309.74	193.56	2116.18
					12/12/2006	2309.74	193.73	2116.01
					1/10/2007	2309.74	193.82	2115.92
					2/16/2007	2309.74	188.76	2120.98
					3/15/2007	2309.74	192.37	2117.37
					4/19/2007	2309.74	192.78	2116.96
					5/17/2007	2309.74	193.05	2116.69
					6/20/2007	2309.74	193.55	2116.19
					7/25/2007	2309.74	195.01	2114.73
					8/31/2007	2309.74	195.22	2114.52
					10/15/2007	2309.74	195.06	2114.68
					11/28/2007	2309.74	195.11	2114.63
					12/28/2007	2309.74	195.22	2114.52
					1/30/2008	2309.74	192.19	2117.55
					2/27/2008	2309.74	191.74	2118.00
					3/26/2008	2309.74	191.07	2118.67
					4/21/2008	2309.74	190.61	2119.13
					6/25/2008	2309.74	191.35	2118.39
					9/25/2008	2309.74	191.40	2118.34
					10/8/2008	2309.74	191.33	2118.41
					11/10/2008	2309.74	190.53	2119.21
					10/5/2010	2309.74	194.98	2114.76
					12/7/2011	2309.74	197.19	2112.55
					10/8/2012	2309.74	199.54	2110.20
					5/8/2014	2309.74	202.45	2107.29
					3/19/2015	2309.74	200.50	2109.24
IRA-27	67119	55-900481	P	55.5-65.5	12/7/2004	2280.20	64.96	2215.24
					1/7/2005	2280.20	63.95	2216.25
					2/8/2005	2280.20	63.91	2216.29
					3/8/2005	2280.20	63.91	2216.29
					3/30/2005	2280.20	63.85	2216.35
					5/6/2005	2280.20	63.91	2216.29
					9/29/2005	2282.49	63.85	2218.64
					10/19/2005	2282.49	63.94	2218.55
					11/16/2005	2282.49	64.00	2218.49
					12/15/2005	2282.49	63.97	2218.52
					1/19/2006	2282.49	63.99	2218.50
					2/14/2006	2282.49	63.96	2218.53
					3/22/2006	2282.49	64.02	2218.47
					4/25/2006	2282.49	64.03	2218.46
					5/23/2006	2282.49	63.98	2218.51
					6/29/2006	2282.49	63.99	2218.50
					7/27/2006	2282.49	63.97	2218.52
					8/24/2006	2282.49	63.90	2218.59
					10/6/2006	2282.49	63.86	2218.63
					11/8/2006	2282.49	64.01	2218.48
					12/12/2006	2282.49	64.01	2218.48
					1/10/2007	2282.49	64.04	2218.45
					2/16/2007	2282.49	64.05	2218.44
					3/15/2007	2282.49	64.05	2218.44
					4/16/2007	2282.49	63.98	2218.51
					5/17/2007	2282.49	63.41	2219.08
					6/21/2007	2282.49	63.46	2219.03
					7/25/2007	2282.49	63.97	2218.52
					8/31/2007	2282.49	63.94	2218.55
					10/15/2007	2282.49	63.85	2218.64
					11/29/2007	2282.49	63.59	2218.90
					12/28/2007	2282.49	63.61	2218.88
					1/30/2008	2282.49	63.84	2218.65
					2/27/2008	2282.49	63.91	2218.58
					3/26/2008	2282.49	64.86	2217.63
					4/2/2008	2282.49	64.86	2217.63
					5/30/2008	2282.49	64.63	2217.86
					6/25/2008	2282.49	64.05	2218.44
					9/25/2008	2282.49	63.84	2218.65
					10/8/2008	2282.49	63.84	2218.65
					11/13/2008	2282.49	63.89	2218.60
					10/6/2010	2282.49	64.05	2218.44
					12/5/2011	2282.49	63.94	2218.55

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-27	67119	55-900481	P	55.5-65.5	12/8/2012	2282.49	63.94	2218.55
					5/8/2014	2282.49	64.01	2218.48
					3/10/2015	2282.49	64.90	2217.59
IRA-29	67116	55-900479	P	56.5-66.5	12/7/2004	2283.83	64.38	2219.45
					1/7/2005	2283.83	64.51	2219.32
					2/8/2005	2283.83	63.68	2220.15
					3/8/2005	2283.83	63.1	2220.73
					3/30/2005	2283.83	63.06	2220.77
					5/6/2005	2283.83	64.41	2219.42
					9/29/2005	2286.12	63.05	2223.07
					10/19/2005	2286.12	62.93	2223.19
					11/16/2005	2286.12	63.80	2222.32
					12/15/2005	2286.12	63.98	2222.14
					1/19/2006	2286.12	64.03	2222.09
					2/14/2006	2286.12	64.00	2222.12
					3/22/2006	2286.12	64.25	2221.87
					4/27/2006	2286.12	66.22	2219.90
					5/23/2006	2286.12	65.88	2220.24
					6/29/2006	2286.12	65.59	2220.53
					7/27/2006	2286.12	65.91	2220.21
					8/24/2006	2286.12	64.69	2221.43
					10/6/2006	2286.12	63.29	2222.83
					11/8/2006	2286.12	64.45	2221.67
					12/12/2006	2286.12	64.16	2221.96
					1/10/2007	2286.12	64.18	2221.94
					2/16/2007	2286.12	64.30	2221.82
					3/15/2007	2286.12	64.30	2221.82
					4/16/2007	2286.12	64.31	2221.81
					5/17/2007	2286.12	63.49	2222.63
					6/21/2007	2286.12	63.56	2222.56
					7/25/2007	2286.12	61.84	2224.28
					8/31/2007	2286.12	62.22	2223.90
					10/15/2007	2286.12	62.69	2223.43
					11/29/2007	2286.12	62.73	2223.39
					12/28/2007	2286.12	63.81	2222.31
					1/30/2008	2286.12	63.92	2222.20
					2/27/2008	2286.12	62.73	2223.39
					3/26/2008	2286.12	63.13	2222.99
					4/21/2008	2286.12	65.08	2221.04
					5/30/2008	2286.12	64.96	2221.16
					6/25/2008	2286.12	64.59	2221.53
					9/25/2008	2286.12	62.70	2223.42
					10/8/2008	2286.12	62.61	2223.51
					11/13/2008	2286.12	63.04	2223.08
					10/6/2010	2286.12	63.46	2222.66
					12/5/2011	2286.12	63.09	2223.03
					10/8/2012	2286.12	63.69	2222.43
					5/8/2014	2286.12	64.49	2221.63
					3/10/2015	2286.12	63.33	2222.79
IRA-3	57692	55-529842	R	150-240	1/1/1992	2303.98	162.34	2141.64
					2/1/1992	2303.98	162.10	2141.88
					3/1/1992	2303.98	161.47	2142.51
					4/1/1992	2303.98	161.23	2142.75
					5/1/1992	2303.98	161.12	2142.86
					6/1/1992	2303.98	163.25	2140.73
					4/21/1993	2303.98	158.65	2145.33
					5/12/1994	2303.98	156.16	2147.82
					1/11/1995	2303.98	162.05	2141.93
					2/26/1996	2303.98	161.62	2142.36
					1/28/1997	2303.98	167.54	2136.44
					3/25/1997	2303.98	167.16	2136.82
					11/24/1997	2303.98	170.75	2133.23
					4/21/1998	2303.98	166.95	2137.03
					6/19/1998	2303.98	168.11	2135.87
					5/20/1999	2303.98	167.5	2136.48
					6/21/1999	2303.98	169.97	2134.01
					7/15/1999	2303.98	170.56	2133.42
					8/19/1999	2303.98	170.48	2133.5
					9/16/1999	2303.98	170.39	2133.59

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-3	57692	55-529842	R	150-240	10/21/1999	2303.98	170.26	2133.72
					11/18/1999	2303.98	169.82	2134.16
					12/16/1999	2303.98	169.41	2134.57
					1/20/2000	2303.98	168.83	2135.15
					2/18/2000	2303.98	168.82	2135.16
					3/17/2000	2303.98	168.86	2135.12
					4/20/2000	2303.98	168.89	2135.09
					5/19/2000	2303.98	169.45	2134.53
					9/26/2000	2303.98	172.56	2131.42
					12/19/2000	2303.98	171.14	2132.84
					3/12/2001	2303.98	167.8	2136.18
					6/27/2001	2303.98	169.34	2134.64
					9/26/2001	2303.98	172.47	2131.51
					12/12/2001	2303.98	172.91	2131.07
					3/5/2002	2303.98	170.83	2133.15
					5/1/2002	2303.98	171.63	2132.35
					9/13/2002	2303.98	175.15	2128.83
					1/9/2003	2303.98	175.57	2128.41
					5/8/2003	2303.98	176.35	2127.63
					3/5/2004	2303.98	177.59	2126.39
					5/27/2004	2306.17	179.32	2126.85
					12/7/2004	2306.17	182.61	2123.56
					1/7/2005	2306.17	181.86	2124.31
					2/8/2005	2306.17	181.3	2124.87
					3/7/2005	2306.17	180.9	2125.27
					3/30/2005	2306.17	180.87	2125.3
					3/31/2005	2306.17	181.04	2125.13
					5/6/2005	2306.17	180.51	2125.66
					9/30/2005	2305.30	182.84	2122.46
					10/27/2005	2305.30	182.88	2122.42
					11/16/2005	2305.30	182.74	2122.56
					12/15/2005	2305.30	183.21	2122.09
					1/19/2006	2305.30	183.49	2121.81
					2/14/2006	2305.30	183.48	2121.82
					3/22/2006	2305.30	180.99	2124.31
					4/21/2006	2305.30	180.63	2124.67
					5/23/2006	2305.30	181.91	2123.39
					6/29/2006	2305.30	182.96	2122.34
					8/24/2006	2305.30	183.49	2121.81
					10/6/2006	2305.30	182.51	2122.79
					11/8/2006	2305.30	183.80	2121.50
					12/12/2006	2305.30	183.16	2122.14
					1/10/2007	2305.30	182.92	2122.38
					2/16/2007	2305.30	182.51	2122.79
					3/15/2007	2305.30	182.34	2122.96
					4/16/2007	2305.30	182.21	2123.09
					5/17/2007	2305.30	182.33	2122.97
					6/21/2007	2305.30	182.51	2122.79
					7/25/2007	2305.30	184.37	2120.93
					10/15/2007	2305.30	184.29	2121.01
					11/29/2007	2305.30	184.18	2121.12
					12/28/2007	2305.30	184.13	2121.17
					1/31/2008	2305.30	183.09	2122.21
					2/27/2008	2305.30	181.53	2123.77
					3/26/2008	2305.30	181.41	2123.89
					4/21/2008	2305.30	181.63	2123.67
					6/25/2008	2305.30	181.70	2123.60
					9/25/2008	2305.30	181.63	2123.67
					10/8/2008	2305.30	181.70	2123.60
					11/14/2008	2305.30	180.77	2124.53
					10/5/2010	2305.30	183.31	2121.99
					10/8/2012	2305.30	186.99	2118.31
					5/8/2014	2305.30	188.78	2116.52
					3/19/2015	2305.30	187.02	2118.28
IRA-30	67117	55-900478	P	59-69	12/7/2004	2287.77	65.14	2222.63
					1/7/2005	2287.77	65.12	2222.65
					2/8/2005	2287.77	64.98	2222.79
					3/8/2005	2287.77	65	2222.77
					3/30/2005	2287.77	65.04	2222.73

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-30	67117	55-900478	P	59-69	5/6/2005	2287.77	65.19	2222.58
					9/29/2005	2290.02	64.99	2225.03
					10/27/2005	2290.02	65.03	2224.99
					11/16/2005	2290.02	65.04	2224.98
					12/15/2005	2290.02	65.05	2224.97
					1/19/2006	2290.02	65.11	2224.91
					2/14/2006	2290.02	65.12	2224.90
					3/22/2006	2290.02	65.17	2224.85
					4/28/2006	2290.02	65.20	2224.82
					5/23/2006	2290.02	65.18	2224.84
					6/29/2006	2290.02	65.19	2224.83
					7/27/2006	2290.02	65.20	2224.82
					8/24/2006	2290.02	64.92	2225.10
					10/6/2006	2290.02	64.98	2225.04
					11/8/2006	2290.02	65.18	2224.84
					12/12/2006	2290.02	65.27	2224.75
					1/10/2007	2290.02	65.22	2224.80
					2/16/2007	2290.02	65.24	2224.78
					3/15/2007	2290.02	65.24	2224.78
					4/16/2007	2290.02	65.19	2224.83
					5/17/2007	2290.02	65.27	2224.75
					6/21/2007	2290.02	65.66	2224.36
					8/31/2007	2290.02	65.16	2224.86
					10/15/2007	2290.02	64.98	2225.04
					11/29/2007	2290.02	64.76	2225.26
					12/28/2007	2290.02	64.90	2225.12
					1/30/2008	2290.02	64.97	2225.05
					2/27/2008	2290.02	65.03	2224.99
					3/26/2008	2290.02	65.05	2224.97
					4/21/2008	2290.02	65.07	2224.95
					5/30/2008	2290.02	64.80	2225.22
					6/25/2008	2290.02	65.28	2224.74
					9/25/2008	2290.02	64.77	2225.25
					10/8/2008	2290.02	64.85	2225.17
					11/13/2008	2290.02	65.03	2224.99
					10/6/2010	2290.02	65.16	2224.86
					12/5/2011	2290.02	64.95	2225.07
					10/8/2012	2290.02	64.94	2225.08
					5/8/2014	2290.02	65.19	2224.83
					3/10/2015	2290.02	64.90	2225.12
IRA-31	67118	55-900477	R	159-209	12/7/2004	2291.13	171.04	2120.09
					1/7/2005	2291.13	170.52	2120.61
					2/8/2005	2291.13	169.97	2121.16
					3/8/2005	2291.13	169.53	2121.6
					3/30/2005	2291.13	169.5	2121.63
					3/31/2005	2291.13	169.53	2121.6
					5/6/2005	2291.13	168.97	2122.16
					9/29/2005	2291.13	171.64	2119.49
					10/19/2005	2291.13	171.64	2119.49
					11/16/2005	2291.13	172.03	2119.1
					12/15/2005	2291.13	171.25	2119.88
					1/19/2006	2291.13	170.91	2120.22
					2/14/2006	2291.13	171.03	2120.1
					3/22/2006	2291.13	169.94	2121.19
					4/29/2006	2291.13	169.70	2121.43
					5/23/2006	2291.13	170.62	2120.51
					6/29/2006	2291.13	171.19	2119.94
					7/27/2006	2291.13	172.32	2118.81
					8/24/2006	2291.13	172.20	2118.93
					10/6/2006	2291.13	172.52	2118.61
					11/8/2006	2291.13	172.03	2119.1
					12/12/2006	2291.13	172.12	2119.01
					1/10/2007	2291.13	172.22	2118.91
					2/16/2007	2291.13	171.50	2119.63
					3/15/2007	2291.13	172.11	2119.02
					4/16/2007	2291.13	171.72	2119.41
					7/25/2007	2291.13	173.38	2117.75
					11/11/2008	2291.13	170.18	2120.95
					10/6/2010	2291.13	171.54	2119.59

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-31	67118	55-900477	R	159-209	12/8/2011	2291.13	175.11	2116.02
					6/3/2014	2291.13	179.25	2111.88
					3/19/2015	2291.13	177.63	2113.5
IRA-32	78081	55-913097	R	180-230	12/5/2011	2293.96	183.03	2110.93
					10/8/2012	2293.96	185.65	2108.31
					5/7/2014	2293.96	189.35	2104.61
					3/19/2015	2293.96	186.48	2107.48
IRA-33	78082	55-913098	R	269-289	12/5/2011	2292.65	182.62	2110.03
				309-329	10/8/2012	2292.65	185.37	2107.28
				339-349	5/7/2014	2292.65	189.35	2103.30
					3/19/2015	2292.65	186.78	2105.87
IRA-34	78083	55-913095	R	180-229	12/5/2011	2297.69	172.36	2125.33
					10/8/2012	2297.69	173.37	2124.32
					5/7/2014	2297.69	175.63	2122.06
					3/19/2015	2297.69	175.58	2122.11
IRA-35	78084	55-913096	R	297-347	12/5/2011	2298.05	183.32	2114.73
					10/8/2012	2298.05	185.62	2112.43
					5/7/2014	2298.05	189.13	2108.92
					3/19/2015	2298.05	188.38	2109.67
IRA-36	78085	55-913099	R	180-210	12/5/2011	2291.18	185.64	2105.54
				220-240	10/8/2012	2291.18	187.94	2103.24
					5/7/2014	2291.18	191.90	2099.28
					3/19/2015	2291.18	187.48	2103.70
IRA-37	78086	55-913100	R	275-285	12/5/2011	2291.28	185.75	2105.53
				295-315	10/8/2012	2291.28	188.06	2103.22
				335-355	5/8/2014	2291.28	192.02	2099.26
					3/19/2015	2291.28	187.45	2103.83
IRA-38	--	55-915343	R	175-225	5/7/2014	2279.27	185.31	2093.96
					3/19/2015	2279.27	178.68	2100.59
IRA-39	--	55-915344	R	185-235	5/7/2014	2294.86	191.61	2103.25
					3/19/2015	2294.86	187.98	2106.88
IRA-40	--	55-915427	P	70-90	5/7/2014	2295.31	88.08	2207.23
					3/19/2015	2295.31	88.24	2207.07
IRA-41	--	55-915428	R	350-400	5/7/2014	2296.63	188.05	2108.58
					3/19/2015	2296.63	180.90	2115.73
IRA-4	57685	55-529843	R	130-220	1/1/1992	2290.16	145.64	2144.52
					2/1/1992	2290.16	145.80	2144.36
					3/1/1992	2290.16	145.26	2144.90
					4/1/1992	2290.16	145.03	2145.13
					5/1/1992	2290.16	145.86	2144.30
					6/1/1992	2290.16	147.02	2143.14
					4/21/1993	2290.16	142.33	2147.83
					7/27/1993	2290.16	143.5	2146.66
					1/11/1995	2290.16	146.96	2143.20
					2/27/1996	2290.16	145.96	2144.20
					1/28/1997	2290.16	152.38	2137.78
					3/25/1997	2290.16	152	2138.16
					11/24/1997	2290.16	155.78	2134.38
					11/27/1997	2290.16	156.03	2134.13
					4/21/1998	2290.16	152.25	2137.91
					5/27/1998	2290.16	152.90	2137.26
					6/19/1998	2290.16	153.31	2136.85
					5/19/1999	2290.16	152.72	2137.44
					6/21/1999	2290.16	154.25	2135.91
					7/15/1999	2290.16	154.85	2135.31
					8/19/1999	2290.16	154.96	2135.20
					9/16/1999	2290.16	154.24	2135.92
					10/21/1999	2290.16	154.02	2136.14
					11/18/1999	2290.16	153.68	2136.48
					12/16/1999	2290.16	152.61	2137.55
					1/20/2000	2290.16	152.09	2138.07
					2/17/2000	2290.16	152.06	2138.10
					3/16/2000	2290.16	152.32	2137.84
					4/20/2000	2290.16	152.83	2137.33
					5/18/2000	2290.16	153.17	2136.99
					9/25/2000	2290.16	155.04	2135.12
					12/18/2000	2290.16	151.05	2139.11
					3/13/2001	2290.16	143.69	2146.47
					6/27/2001	2290.16	152.89	2137.27

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-4	57685	55-529843	R	130-220	9/25/2001	2290.16	152.68	2137.48
					12/10/2001	2290.16	151.95	2138.21
					3/4/2002	2290.16	151.48	2138.68
					1/7/2003	2290.16	154.17	2135.99
					5/5/2003	2290.16	155.42	2134.74
					3/1/2004	2290.16	156.39	2133.77
					5/24/2004	2292.35	158.42	2133.93
					12/7/2004	2292.35	162.2	2130.15
					1/7/2005	2292.35	160.94	2131.41
					2/8/2005	2292.35	160.72	2131.63
					3/7/2005	2292.35	160.74	2131.61
					3/30/2005	2292.35	161.28	2131.07
					3/31/2005	2292.35	161.95	2130.4
					5/6/2005	2292.35	161.01	2131.34
					9/30/2005	2292.45	163.68	2128.77
					10/17/2005	2292.45	163.51	2128.94
					11/16/2005	2292.45	162.94	2129.51
					12/15/2005	2292.45	162.11	2130.34
					1/19/2006	2292.45	162.19	2130.26
					2/14/2006	2292.45	162.21	2130.24
					3/22/2006	2292.45	160.98	2131.47
					4/21/2006	2292.45	161.16	2131.29
					5/23/2006	2292.45	162.05	2130.40
					6/29/2006	2292.45	162.87	2129.58
					7/27/2006	2292.45	163.29	2129.16
					8/24/2006	2292.45	162.90	2129.55
					10/6/2006	2292.45	162.81	2129.64
					11/8/2006	2292.45	162.24	2130.21
					12/12/2006	2292.45	162.31	2130.14
					1/10/2007	2292.45	163.79	2128.66
					2/16/2007	2292.45	163.20	2129.25
					3/15/2007	2292.45	163.49	2128.96
					4/16/2007	2292.45	163.51	2128.94
					5/17/2007	2292.45	163.96	2128.49
					6/21/2007	2292.45	163.99	2128.46
					8/31/2007	2292.45	165.41	2127.04
					10/15/2007	2292.45	165.11	2127.34
					11/29/2007	2292.45	165.83	2126.62
					12/31/2007	2292.45	165.91	2126.54
					1/30/2008	2292.45	164.51	2127.94
					2/27/2008	2292.45	163.67	2128.78
					3/26/2008	2292.45	163.44	2129.01
					4/21/2008	2292.45	163.39	2129.06
					5/30/2008	2292.45	163.89	2128.56
					6/25/2008	2292.45	164.47	2127.98
					9/24/2008	2292.45	163.08	2129.37
					10/8/2008	2292.45	162.89	2129.56
					11/6/2008	2292.45	161.85	2130.60
					10/5/2010	2292.45	165.24	2127.21
					12/5/2011	2292.45	166.32	2126.13
					10/8/2012	2292.45	168.74	2123.71
					5/7/2014	2292.45	170.09	2122.36
					3/19/2015	2292.45	168.30	2124.15
IRA-5	58234	55-530831	R	130-210	1/1/1992	2275.28	143.18	2132.10
					2/1/1992	2275.28	142.34	2132.94
					3/1/1992	2275.28	141.89	2133.39
					4/1/1992	2275.28	141.31	2133.97
					5/1/1992	2275.28	141.64	2133.64
					6/1/1992	2275.28	141.99	2133.29
					4/21/1993	2275.28	135.96	2139.32
					1/11/1995	2275.28	138.27	2137.01
					2/29/1996	2275.28	137.68	2137.60
					1/28/1997	2275.28	142.80	2132.48
					3/25/1997	2275.28	142.08	2133.20
					11/24/1997	2275.28	145.56	2129.72
					11/27/1997	2275.28	146.09	2129.19
					4/21/1998	2275.28	142.85	2132.43
					5/27/1998	2275.28	143.07	2132.21
					6/19/1998	2275.28	143.80	2131.48

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-5	58234	55-530831	R	130-210	5/19/1999	2275.28	145.10	2130.18
					6/21/1999	2275.28	146.5	2128.78
					7/15/1999	2275.28	146.73	2128.55
					8/19/1999	2275.28	145.17	2130.11
					9/16/1999	2275.28	144.45	2130.83
					10/21/1999	2275.28	145.24	2130.04
					11/18/1999	2275.28	145.35	2129.93
					12/16/1999	2275.28	144.12	2131.16
					1/21/2000	2275.28	143.12	2132.16
					2/17/2000	2275.28	142.49	2132.79
					3/16/2000	2275.28	142.18	2133.10
					4/20/2000	2275.28	142.59	2132.69
					5/18/2000	2275.28	143.78	2131.50
					9/25/2000	2275.28	148.1	2127.18
					12/18/2000	2275.28	147.8	2127.48
					3/12/2001	2275.28	143.42	2131.86
					6/26/2001	2275.28	147.11	2128.17
					9/25/2001	2275.28	151.13	2124.15
					12/17/2001	2275.28	150.58	2124.70
					3/4/2002	2275.28	147.39	2127.89
					4/29/2002	2275.28	148.03	2127.25
					9/10/2002	2275.28	154.28	2121.00
					1/6/2003	2275.28	154.11	2121.17
					5/6/2003	2275.28	154.94	2120.34
					3/1/2004	2275.28	157.1	2118.18
					5/24/2004	2277.48	159.47	2118.01
					12/7/2004	2277.48	162.87	2114.61
					1/7/2005	2277.48	161.55	2115.93
					2/8/2005	2277.48	160.04	2117.44
					3/7/2005	2277.48	159.14	2118.34
					3/30/2005	2277.48	158.28	2119.2
					3/31/2005	2277.48	158.4	2119.08
					5/6/2005	2277.48	157.48	2120
					9/29/2005	2277.80	161.40	2116.40
					10/24/2005	2277.80	162.34	2115.46
					11/16/2005	2277.80	163.01	2114.79
					12/15/2005	2277.80	162.88	2114.92
					1/19/2006	2277.80	162.15	2115.65
					2/14/2006	2277.80	162.72	2115.08
					3/22/2006	2277.80	161.46	2116.34
					4/21/2006	2277.80	161.09	2116.71
					5/23/2006	2277.80	161.83	2115.97
					6/29/2006	2277.80	162.14	2115.66
					7/27/2006	2277.80	163.48	2114.32
					8/24/2006	2277.80	162.19	2115.61
					10/6/2006	2277.80	162.85	2114.95
					11/8/2006	2277.80	163.63	2114.17
					12/12/2006	2277.80	163.44	2114.36
					1/10/2007	2277.80	163.36	2114.44
					2/16/2007	2277.80	163.40	2114.40
					3/15/2007	2277.80	162.39	2115.41
					4/16/2007	2277.80	161.26	2116.54
					5/17/2007	2277.80	160.92	2116.88
					6/20/2007	2277.80	161.47	2116.33
					7/25/2007	2277.80	164.36	2113.44
					8/31/2007	2277.80	164.92	2112.88
					10/15/2007	2277.80	163.82	2113.98
					11/28/2007	2277.80	163.59	2114.21
					12/28/2007	2277.80	163.65	2114.15
					1/30/2008	2277.80	161.87	2115.93
					2/27/2008	2277.80	161.32	2116.48
					3/26/2008	2277.80	160.45	2117.35
					4/21/2008	2277.80	160.24	2117.56
					5/30/2008	2277.80	161.19	2116.61
					6/25/2008	2277.80	160.85	2116.95
					9/24/2008	2277.80	162.07	2115.73
					10/8/2008	2277.80	161.94	2115.86
					11/6/2008	2277.80	162.33	2115.47
					10/5/2010	2277.80	167.55	2110.25

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Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-5	58234	55-530831	R	130-210	12/5/2011	2277.80	171.81	2105.99
					10/8/2012	2277.80	173.64	2104.16
					5/9/2014	2277.80	176.38	2101.42
					3/12/2015	2277.80	171.80	2106.00
IRA-6	57686	55-547953	R	138-203	2/26/1996	2288.74	148.09	2140.65
					1/28/1997	2288.74	153.3	2135.44
					3/25/1997	2288.74	153	2135.74
					11/24/1997	2288.74	156.71	2132.03
					11/27/1997	2288.74	157.05	2131.69
					4/21/1998	2288.74	153.09	2135.65
					5/27/1998	2288.74	153.41	2135.33
					6/19/1998	2288.74	153.85	2134.89
					5/19/1999	2288.74	153.83	2134.91
					6/21/1999	2288.74	155.53	2133.21
					7/15/1999	2288.74	155.86	2132.88
					8/19/1999	2288.74	155.99	2132.75
					9/16/1999	2288.74	155.83	2132.91
					10/21/1999	2288.74	155.81	2132.93
					11/18/1999	2288.74	155.56	2133.18
					12/16/1999	2288.74	155.18	2133.56
					1/20/2000	2288.74	154.44	2134.30
					2/17/2000	2288.74	154.35	2134.39
					3/17/2000	2288.74	154.21	2134.53
					4/20/2000	2288.74	154.15	2134.59
					5/18/2000	2288.74	154.83	2133.91
					9/27/2000	2288.74	158.03	2130.71
					12/19/2000	2288.74	157.4	2131.34
					3/12/2001	2288.74	154.27	2134.47
					6/27/2001	2288.74	155.3	2133.44
					9/25/2001	2288.74	158.52	2130.22
					12/10/2001	2288.74	159.3	2129.44
					3/4/2002	2288.74	157.08	2131.66
					4/29/2002	2288.74	157.62	2131.12
					9/10/2002	2288.74	161.41	2127.33
					1/6/2003	2288.74	162.26	2126.48
					5/6/2003	2288.74	162.77	2125.97
					3/2/2004	2288.74	164.73	2124.01
					5/20/2004	2290.93	165.61	2125.32
					12/7/2004	2290.93	170.75	2120.18
					1/7/2005	2290.93	170.04	2120.89
					2/8/2005	2290.93	169.21	2121.72
					3/7/2005	2290.93	168.86	2122.07
					3/30/2005	2290.93	168.61	2122.32
					3/31/2005	2290.93	168.7	2122.23
					5/6/2005	2290.93	167.94	2122.99
					9/29/2005	2290.98	170.95	2120.03
					10/18/2005	2290.98	171.16	2119.82
					11/16/2005	2290.98	171.36	2119.62
					12/15/2005	2290.98	170.49	2120.49
					1/19/2006	2290.98	170.24	2120.74
					2/14/2006	2290.98	170.31	2120.67
					3/22/2006	2290.98	169.11	2121.87
					4/21/2006	2290.98	168.91	2122.07
					5/23/2006	2290.98	169.58	2121.40
					6/29/2006	2290.98	170.58	2120.40
					7/27/2006	2290.98	171.18	2119.80
					8/24/2006	2290.98	171.18	2119.80
					10/6/2006	2290.98	171.51	2119.47
					11/8/2006	2290.98	171.20	2119.78
					12/12/2006	2290.98	171.24	2119.74
					1/10/2007	2290.98	171.59	2119.39
					2/16/2007	2290.98	171.15	2119.83
					3/15/2007	2290.98	170.91	2120.07
					4/16/2007	2290.98	170.85	2120.13
					5/17/2007	2290.98	171.20	2119.78
					6/20/2007	2290.98	171.72	2119.26
					7/25/2007	2290.98	172.72	2118.26
					8/31/2007	2290.98	173.43	2117.55
					10/15/2007	2290.98	173.04	2117.94

Appendix B
Historical Water Level Data
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-6	57686	55-547953	R	138-203	11/29/2007	2290.98	172.70	2118.28
					12/28/2007	2290.98	172.68	2118.30
					1/30/2008	2290.98	171.11	2119.87
					3/26/2008	2290.98	170.38	2120.60
					4/1/2008	2290.98	170.38	2120.60
					5/30/2008	2290.98	169.99	2120.99
					6/25/2008	2290.98	170.55	2120.43
					9/24/2008	2290.98	170.76	2120.22
					10/8/2008	2290.98	170.51	2120.47
					11/6/2008	2290.98	169.80	2121.18
					10/5/2010	2290.98	173.53	2117.45
					12/5/2011	2290.98	175.48	2115.50
					10/8/2012	2290.98	177.45	2113.53
					5/8/2014	2290.98	179.37	2111.61
					3/19/2015	2290.98	177.63	2113.35
IRA-7	57688	55-547954	R	138-203	2/26/1996	2287.81	138.62	2149.19
					1/28/1997	2287.81	152.3	2135.51
					3/25/1997	2287.81	151.63	2136.18
					11/24/1997	2287.81	155.81	2132.00
					11/27/1997	2287.81	156.12	2131.69
					4/21/1998	2287.81	152.05	2135.76
					5/27/1998	2287.81	152.45	2135.36
					6/19/1998	2287.81	152.94	2134.87
					5/19/1999	2287.81	152.68	2135.13
					6/21/1999	2287.81	154.33	2133.48
					7/15/1999	2287.81	154.88	2132.93
					8/19/1999	2287.81	155.06	2132.75
					9/16/1999	2287.81	155.07	2132.74
					10/21/1999	2287.81	154.98	2132.83
					11/18/1999	2287.81	154.83	2132.98
					12/16/1999	2287.81	154.47	2133.34
					1/20/2000	2287.81	153.51	2134.30
					2/18/2000	2287.81	153.56	2134.25
					3/17/2000	2287.81	153.46	2134.35
					4/21/2000	2287.81	153.38	2134.43
					5/18/2000	2287.81	154.08	2133.73
					9/26/2000	2287.81	157.44	2130.37
					12/18/2000	2287.81	156.71	2131.10
					3/12/2001	2287.81	153.45	2134.36
					6/27/2001	2287.81	154.62	2133.19
					9/25/2001	2287.81	157.71	2130.10
					12/10/2001	2287.81	158.3	2129.51
					3/4/2002	2287.81	156.43	2131.38
					4/29/2002	2287.81	156.71	2131.10
					9/10/2002	2287.81	160.52	2127.29
					1/6/2003	2287.81	161.39	2126.42
					5/6/2003	2287.81	161.78	2126.03
					3/2/2004	2287.81	163.7	2124.11
					5/20/2004	2290.00	164.58	2125.42
					12/7/2004	2290.00	169.63	2120.37
					1/7/2005	2290.00	168.9	2121.10
					2/8/2005	2290.00	168.15	2121.85
					3/8/2005	2290.00	167.72	2122.28
					3/30/2005	2290.00	167.58	2122.42
					3/31/2005	2290.00	167.8	2122.20
					5/6/2005	2290.00	171.83	2118.17
					9/29/2005	2289.88	169.95	2119.93
					10/25/2005	2289.88	170.05	2119.83
					11/16/2005	2289.88	170.12	2119.76
					12/15/2005	2289.88	170.44	2119.44
					1/19/2006	2289.88	169.91	2119.97
					2/14/2006	2289.88	170.21	2119.67
					3/22/2006	2289.88	168.08	2121.80
					4/21/2006	2289.88	167.85	2122.03
					5/23/2006	2289.88	168.57	2121.31
					6/29/2006	2289.88	169.52	2120.36
					7/27/2006	2289.88	171.29	2118.59
					8/24/2006	2289.88	170.27	2119.61
					10/6/2006	2289.88	170.55	2119.33

Appendix B
Historical Water Level Data
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-7	57688	55-547954	R	138-203	11/8/2006	2289.88	170.58	2119.30
					12/12/2006	2289.88	170.37	2119.51
					1/10/2007	2289.88	170.49	2119.39
					2/16/2007	2289.88	170.03	2119.85
					3/15/2007	2289.88	169.71	2120.17
					4/16/2007	2289.88	169.75	2120.13
					5/17/2007	2289.88	170.29	2119.59
					6/21/2007	2289.88	170.33	2119.55
					7/25/2007	2289.88	171.67	2118.21
					10/15/2007	2289.88	171.81	2118.07
					11/29/2007	2289.88	171.93	2117.95
					12/28/2007	2289.88	171.82	2118.06
					1/31/2008	2289.88	170.83	2119.05
					2/27/2008	2289.88	169.66	2120.22
					3/26/2008	2289.88	169.43	2120.45
					4/21/2008	2289.88	169.17	2120.71
					5/30/2008	2289.88	170.21	2119.67
					6/25/2008	2289.88	169.38	2120.50
					9/25/2008	2289.88	169.75	2120.13
					10/8/2008	2289.88	169.24	2120.64
					11/11/2008	2289.88	168.58	2121.30
					10/6/2010	2289.88	172.48	2117.40
					12/5/2011	2289.88	174.11	2115.77
					10/8/2012	2289.88	176.13	2113.75
					5/7/2014	2289.88	177.90	2111.98
					3/19/2015	2289.88	176.52	2113.36
IRA-8	57687	55-557128	R	140-200	1/28/1997	2290.92	155.4	2135.52
					3/25/1997	2290.92	155.07	2135.85
					11/24/1997	2290.92	158.7	2132.22
					11/27/1997	2290.92	159.07	2131.85
					4/21/1998	2290.92	155.15	2135.77
					5/19/1999	2290.92	156.02	2134.90
					6/21/1999	2290.92	157.43	2133.49
					7/15/1999	2290.92	157.9	2133.02
					8/19/1999	2290.92	157.85	2133.07
					9/16/1999	2290.92	157.75	2133.17
					10/21/1999	2290.92	157.66	2133.26
					11/18/1999	2290.92	157.68	2133.24
					12/16/1999	2290.92	157.12	2133.80
					1/20/2000	2290.92	156.51	2134.41
					2/17/2000	2290.92	156.37	2134.55
					3/17/2000	2290.92	156.09	2134.83
					4/20/2000	2290.92	156.12	2134.80
					5/18/2000	2290.92	156.94	2133.98
					9/27/2000	2290.92	160.18	2130.74
					12/19/2000	2290.92	159.4	2131.52
					3/13/2001	2290.92	156.11	2134.81
					6/27/2001	2290.92	157.48	2133.44
					9/27/2001	2290.92	160.78	2130.14
					12/13/2001	2290.92	161.47	2129.45
					3/6/2002	2290.92	159.12	2131.80
					4/29/2002	2290.92	159.58	2131.34
					9/13/2002	2290.92	163.73	2127.19
					1/6/2003	2290.92	164.26	2126.66
					5/7/2003	2290.92	164.87	2126.05
					3/2/2004	2290.92	166.61	2124.31
					5/27/2004	2293.11	168.24	2124.87
					12/7/2004	2293.11	172.47	2120.64
					1/7/2005	2293.11	172.03	2121.08
					2/8/2005	2293.11	171.04	2122.07
					3/7/2005	2293.11	170.78	2122.33
					3/30/2005	2293.11	170.62	2122.49
					3/31/2005	2293.11	170.48	2122.63
					5/6/2005	2293.11	169.95	2123.16
					9/29/2005	2293.16	172.91	2120.25
					10/20/2005	2293.16	173.13	2120.03
					11/16/2005	2293.16	173.17	2119.99
					12/15/2005	2293.16	172.53	2120.63
					1/19/2006	2293.16	172.15	2121.01

Appendix B
Historical Water Level Data
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
IRA-8	57687	55-557128	R	140-200	2/14/2006	2293.16	172.2	2120.96
					3/22/2006	2293.16	171.1	2122.06
					4/21/2006	2293.16	170.84	2122.32
					5/23/2006	2293.16	171.49	2121.67
					6/29/2006	2293.16	172.44	2120.72
					7/27/2006	2293.16	173.14	2120.02
					8/24/2006	2293.16	173.17	2119.99
					10/6/2006	2293.16	173.41	2119.75
					11/8/2006	2293.16	173.08	2120.08
					12/12/2006	2293.16	173.21	2119.95
					1/10/2007	2293.16	173.42	2119.74
					2/16/2007	2293.16	173.05	2120.11
					3/15/2007	2293.16	172.85	2120.31
					4/16/2007	2293.16	173.72	2119.44
					5/17/2007	2293.16	173.25	2119.91
					6/20/2007	2293.16	173.6	2119.56
					7/25/2007	2293.16	174.62	2118.54
					8/31/2007	2293.16	175.23	2117.93
					10/15/2007	2293.16	175.8	2117.36
					11/28/2007	2293.16	174.51	2118.65
					12/28/2007	2293.16	174.63	2118.53
					1/30/2008	2293.16	173.13	2120.03
					3/26/2008	2293.16	172.26	2120.90
					4/1/2008	2293.16	172.26	2120.90
					5/30/2008	2293.16	171.91	2121.25
					6/25/2008	2293.16	172.44	2120.72
					9/25/2008	2293.16	172.62	2120.54
					10/8/2008	2293.16	172.39	2120.77
					11/7/2008	2293.16	171.56	2121.60
					10/6/2010	2293.16	175.49	2117.67
					12/5/2011	2293.16	177.52	2115.64
					10/8/2012	2293.16	179.46	2113.70
					5/8/2014	2293.16	181.35	2111.81
					3/19/2015	2293.16	179.57	2113.59
IRA-9	58229	55-562355	R	145-225	11/24/1997	2299.56	169.54	2130.02
					11/27/1997	2299.56	170.19	2129.37
					4/19/1998	2299.56	165.69	2133.87
					5/27/1998	2299.56	165.8	2133.76
					6/19/1998	2299.56	166.22	2133.34
					5/19/1999	2299.56	166.71	2132.85
					6/21/1999	2299.56	168.14	2131.42
					6/30/1999	2299.56	168.49	2131.07
					7/15/1999	2299.56	168.47	2131.09
					8/19/1999	2299.56	168.62	2130.94
					9/16/1999	2299.56	168.21	2131.35
					10/21/1999	2299.56	168.35	2131.21
					11/18/1999	2299.56	168.35	2131.21
					12/16/1999	2299.56	167.82	2131.74
					1/20/2000	2299.56	167.07	2132.49
					2/17/2000	2299.56	167.02	2132.54
					3/16/2000	2299.56	166.63	2132.93
					4/20/2000	2299.56	166.84	2132.72
					5/18/2000	2299.56	167.59	2131.97
					9/27/2000	2299.56	170.95	2128.61

Appendix B
Historical Water Level Data
Miracle Mile WQARF Site, Tucson, Arizona

Well ID	ADEQ #	ADWR Registry ID	Aquifer Zone	Screen Interval (ft BTOC)	Date	Measuring Point Elevation (ft amsl)	Depth to Water (ft bgs)	Water Elevation (ft amsl)
					12/19/2000	2299.56	170.24	2129.32
					3/13/2001	2299.56	162.39	2137.17
					6/28/2001	2299.56	169.19	2130.37
					9/27/2001	2299.56	171.8	2127.76
					12/13/2001	2299.56	172.9	2126.66
					3/7/2002	2299.56	171.8	2127.76
					4/29/2002	2299.56	170.82	2128.74
					9/13/2002	2299.56	175.15	2124.41
					1/7/2003	2299.56	175.77	2123.79
					5/7/2003	2299.56	176.29	2123.27
					5/27/2004	2301.75	180.22	2121.53
					12/7/2004	2301.75	184.26	2117.49
					1/7/2005	2301.75	182.59	2119.16
					2/8/2005	2301.75	182.71	2119.04
					3/8/2005	2301.75	181.95	2119.8
IRA-9	58229	55-562355	R	145-225	3/30/2005	2301.75	181.8	2119.95
					3/31/2005	2301.75	182.01	2119.74
					5/6/2005	2301.75	181.13	2120.62
					9/29/2005	2301.97	184.26	2117.71
					10/24/2005	2301.97	184.22	2117.75
					11/16/2005	2301.97	184.13	2117.84
					12/15/2005	2301.97	183.48	2118.49
					1/19/2006	2301.97	183.3	2118.67
					2/14/2006	2301.97	183.33	2118.64
					4/21/2006	2301.97	181.86	2120.11
					5/23/2006	2301.97	182.75	2119.22
					6/29/2006	2301.97	183.81	2118.16
					7/27/2006	2301.97	184.4	2117.57
					8/24/2006	2301.97	184.34	2117.63
					10/6/2006	2301.97	184.6	2117.37
					11/8/2006	2301.97	184.06	2117.91
					12/12/2006	2301.97	184.26	2117.71
					1/10/2007	2301.97	184.26	2117.71
					2/16/2007	2301.97	183.88	2118.09
					3/15/2007	2301.97	183.52	2118.45
					4/16/2007	2301.97	183.92	2118.05
					6/20/2007	2301.97	184.78	2117.19
					7/25/2007	2301.97	185.9	2116.07
					8/31/2007	2301.97	186.38	2115.59
					10/15/2007	2301.97	186.09	2115.88
					11/28/2007	2301.97	186.18	2115.79
					1/30/2008	2301.97	180.98	2120.99
					2/27/2008	2301.97	180.42	2121.55
					3/26/2008	2301.97	182.77	2119.20
					4/21/2008	2301.97	182.39	2119.58
					5/30/2008	2301.97	182.34	2119.63
					9/25/2008	2301.97	183.25	2118.72
					10/8/2008	2301.97	183.1	2118.87
					11/18/2008	2301.97	182.62	2119.35
					12/6/2011	2301.97	189.15	2112.82
					10/8/2012	2301.97	191.02	2110.95
					5/23/2014	2301.97	193.27	2108.70
					3/19/2015	2301.97	191.95	2110.02
SJ-MW-01	--	55-201667	P	61-71	6/3/2014	2293.88	Dry	Dry
					3/17/2015	2293.88	Dry	Dry
SJ-MW-02	67120	55-201668	P	64-74	6/3/2014	2293.50	68.35	2225.15
					3/17/2015	2293.50	71.78	2221.72
SJ-MW-03	67121	55-201669	P	84-94	6/3/2014	2294.25	72.58	2221.67
					3/17/2015	2294.25	93.53	2200.72

Notes:

Perched Zone Well

ADWR Registry # - Arizona Department of Water Resources Well Number
ADEQ # - ADEQ assigned groundwater database well number
amsl - above mean sea level
bgs - below ground surface
BTOC - below top of casing
ft - feet
ID - identification
N/A - Not Available
NM - Not Measured
P - Perched
R - Regional

APPENDIX C

HISTORICAL WATER QUALITY DATA (RI TABLES 15-18)

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	TCE																
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 00	Sep-00	Dec-00	Mar-01	June-July 2001	Sep-01	Dec-01	Mar-02	Apr-May 2002	Sep-02	Jan-03	May-03	Dec-03
IRA-1	130 - 210	5.0	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5
IRA-2	150 - 230	5.0	**60.0**	**65**	**93**	**95**	**120**	**82**	**130**	**180**	**170**	**88**	**55**	**38**	**40**	**48**	**50**	**36**	**37**
IRA-3	150 - 240	5.0	**1.6**	**1.0**	**1.9**	**1.7**	**1.0**	**1.2**	**2.6**	**2.8**	**0.83**	**0.65**	**1.3**	**1.6**	1.0/0.91	**1.0**	**1.4**	**0.54**	**0.75**
IRA-4	130 - 220	5.0	<0.5	<0.4	<0.4	<0.4	---	---	---	<0.4	<0.40	<0.40	---	---	---	---	---	< 0.5	---
IRA-5	130 - 210	5.0	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	---
IRA-6	138 - 203	5.0	**1.8**	**1.1**	**1.1**	**0.99**	**1.1**	**1.0**	**1.0**	**1.6**	**2.1**	2.9/2.7	**2.6**	**2.3**	2.6/2.7	**2.6**	**1.9**	**2.0**	**1.8**
IRA-7	138 - 203	5.0	**1.9**	**1.6**	**0.79**	**1.0**	**0.95**	**0.96**	**0.93**	**1.2**	**1.5**	**2.1**	**2.1**	**2.2**	**2.2**	**2.3**	**2.0**	**2.2**	**1.4**
IRA-8	140 - 200	5.0	**25.0**	**22**	**20**	**22**	**16**	**11**	**36**	**36.0**	**42**	**59**	**49**	**55**	**44**	**58**	**32**	**26**	**7.1**
IRA-9	145 - 225	5.0	**6.3**	**5.9**	**7.2**	**7.2**	**9.9**	**14**	**20**	**25.0**	**38**	**52**	**48**	**51**	**57**	**79**	**68**	**48**	---
IRA-10-230	145 - 225	5.0	**2.7**	**0.7**	**1.1**	<0.4	**2.6**	**1.3**	**0.71**	---	**0.57**	---	---	<0.50	<0.50	**0.66**	< 0.5	**1.1**	**1.3**
IRA-11-210	150 - 210	5.0	---	---	---		---	---	---	---	**5.5**	**5.2**	**4.7**	**3.8**	**6.0**	**4.9**	**7.1**	**15**	**23**
IRA-12-210	140 - 210	5.0	---	---	---		---	---	---	---	**6.3**	**4.9**	**5.4**	**6.1**	**6.9**	**6.8**	**3.8**	**4.2**	**0.94**
IRA-13-210	150 - 210	5.0	---	---	---		---	---	---	---	**38**	**49**	**57**	**60**	**69**	93/97	**88**	**77**	**58**
IRA-14-1	160 – 170	5.0	---	---	---		---	---	---	---	**140**	**72**	**110**	**140**	**120**	**64**	**71**	**37**	---
IRA-14-2	190 - 200	5.0	---	---	---		---	---	---	---	**390**	**140**	**72**	**150**	**180**	**78**	**120**	**23**	**53**
IRA-14-3	230 – 240	5.0	---	---	---		---	---	---	---	**5.7**	**4.0**	**22**	**17**	**11**	**29**	**26**	**24**	**23**
IRA-14-4	260 - 270	5.0	---	---	---		---	---	---	---	**10**	**2.9**	**12**	**18**	**18**	**32**	**14**	**22**	**23**
IRA-14-5	290 - 300	5.0	---	---	---		---	---	---	---	**15**	**2.8**	**25**	**28**	**11**	**20**	**36**	**21**	**36**
IRA-24	168 - 218	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-25	170 – 240	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	**2.5**	**5.7**
IRA-26	170 - 240	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	**56**	**47**
IRA-31	159 - 209	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-32	180 - 230	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-33	269 - 289 309 - 329 339 - 349	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-34	180 - 229	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-35	297 - 347	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-36	180 - 210 220 - 240	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-37	275 - 285 295 - 315 335 - 355	5.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-38	175-225	5.0																	
IRA-39	185-235	5.0																	
IRA-41	350-400	5.0																	

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	TCE														
			Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	April-June 2014	Mar-15
IRA-1	130 - 210	5.0	<0.5	<0.5	<0.5	<0.5	**0.8**	**0.6**	**0.7**	**1.2**	**1.7**	**1.7**	**1.6**	**1.75**	**1.53**	**1.3**	**1.3**
IRA-2	150 - 230	5.0	**34**	**39**	**45**	**37**	**62**	**28**	**20**	**21.6**	**30.7**	**23**	**11**	---	**8.73**	**9.4**	**1.4**
IRA-3	150 - 240	5.0	**0.63**	<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	<0.5	<0.5	<0.5	**0.52**	<0.5	---	---	---
IRA-4	130 - 220	5.0	---	<0.5	<0.5	**1.1**	<0.5	<0.5	<0.5	**0.5**	**0.81**	**0.9**	**1.3**	**3.26**	**3.17**	**3.4**	**6.7**
IRA-5	130 - 210	5.0	**0.63**	**0.58**	**0.8**	**0.8**	<0.5	**0.5**	**0.5**	<0.5	**0.5**	<0.5	**0.68**	**2.91**	**4.49**	**8.2**	**6.4**
IRA-6	138 - 203	5.0	**2.1**	**2.1**	**2.2**	**2.7**	**2.4**	**2.9**	**2.9**	**4.5**	**3.7**	**3.9**	**5.3**	**5.5**	**3.67**	**1.9**	**1.3**
IRA-7	138 - 203	5.0	**1.2**	**1.4**	**1.3**	**1.3**	**1.4**	**1.2**	**1.2**	**1.3**	**1.0**	**1.3**	**1.3**	**1.39**	**1.18**	<1.0	**0.64**
IRA-8	140 - 200	5.0	**8.7**	**12**	**7.1**	**11**	**6.5**	**15**	---	---	**13.9**	**16.7**	**27**	**14**	**13.5**	**6.4**	**4.3**
IRA-9	145 - 225	5.0	**39**	**33**	**31**	**29**	**32**	**26**	**23**	**24.6**	**23.7**	**27.4**	**41**	---	**18.5**	---	**3.1**
IRA-10-230	145 - 225	5.0	**1.5**	**1.3**	**1.4**	**0.8**	<0.5	**1.3**	**1.9**	**0.6**	**0.59**	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-11-210	150 - 210	5.0	**36**	**38**	**72**	**60**	**40**	**72**	**75**	**72.3**	**66.3**	**71.3**	**76**	**187**	**97.6**	**97**	**53**
IRA-12-210	140 - 210	5.0	**1.4**	**1.9**	**2.5**	**3.1**	**3.1**	**4.1**	**3.1**	**5.7**	---	---	---	---	**1.61**	**1.3**	**1.6**
IRA-13-210	150 - 210	5.0	**58**	**62**	**40**	**33**	---	**27**	**18**	**18.8**	**20**	**21.2**	**13**	**4.36**	**2.58**	**1.5**	**1.7**
IRA-14-1	160 – 170	5.0	**65**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-14-2	190 - 200	5.0	**26**	**30**	**37**	**51**	**46**	**57**	**32**	**48.5**	**58**	**43**	**25**	**108**	---	**130**	**8.9**
IRA-14-3	230 – 240	5.0	**13**	**23**	**23**	**16**	**19**	**22**	**19**	**19.6**	**12**	**15**	**9.7**	**88.9**	---	**1.2**	**0.71**
IRA-14-4	260 - 270	5.0	**20**	**25**	**31**	**27**	**25**	**21**	**19**	**25.8**	**36**	**27**	**33**	**116**	---	**16**	**4.3**
IRA-14-5	290 - 300	5.0	**33**	**22**	**26**	**16**	**25**	**27**	**22**	**21.3**	**18**	**22**	**18**	**85.5**	---	---	---
IRA-24	168 - 218	5.0	---	<0.5	<0.5	<0.5	**1.4**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	**0.78**
IRA-25	170 – 240	5.0	**6.9**	**12**	**18**	**13**	**14**	**26**	**25**	**33.8**	**39.2**	**35.2**	**40**	**23.4**	**17.3**	**6.4**	**4.9**
IRA-26	170 - 240	5.0	**42**	**36**	**26**	**19**	**14**	**8.6**	**5.4**	**3.9**	**3.3**	**2.6**	**2.3**	**1.44**	**0.74**	--	**0.29**
IRA-31	159 - 209	5.0	---	---	**1.9**	**1.9**	**2.0**	**1.7**	**1.5**	---	---	---	**2.4**	**1.51**	**0.55**	--	--
IRA-32	180 - 230	5.0	---	---	---	---		---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-33	269 - 289 309 - 329 339 - 349	5.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-34	180 - 229	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	---
IRA-35	297 - 347	5.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	---
IRA-36	180 - 210 220 - 240	5.0	---	---	---	---	---	---	---	---	---	---	---	---	**8.32**	**20**	**13**
IRA-37	275 - 285 295 - 315 335 - 355	5.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-38	175-225	5.0														<1.0	**1.2**
IRA-39	185-235	5.0														**7.2**	**22**
IRA-41	350-400	5.0														<1.0	<0.5

Notes:
µg/L - micrograms per liter
'---' - no sample collected
AWQS - Aquifer Water Quality Standard
TOC - top of casing
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.5 - Indicates analyte not detected above the method detection limit, some results may be <0.50 or <0.500, but results have been truncated for consistency and readabililty

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	PCE															
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 00	Sep-00	Dec-00	Mar-01	Jun-July	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02	Jan-03	May-03
IRA-1	130 - 210	5.0	**0.7**	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	**0.84**	<0.40	<0.50	<0.50	<0.50	<0.50	**0.52**	**0.70**
IRA-2	150 - 230	5.0	<2.0	<2.0	<0.4	<0.4	**1.3**	**1.0**	**1.0**	**1.0**	**1.1**	**1.1**	**1.0**	**0.95**	**0.88**	**0.83**	**0.83**	**0.95**
IRA-3	150 - 240	5.0	<0.5	<0.4	0.46	<0.4	<0.40	<0.40	**0.59**	**0.59**	<0.40	**1.0**	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5
IRA-4	130 - 220	5.0	<0.5	<0.4	<0.4	<0.4	---	---	---	<0.4	<0.40	<0.40	---	---	---	---	---	< 0.5
IRA-5	130 - 210	5.0	**1.1**	**1.1**	**1.1**	**1.6**	**2.7**	**2.6**	**3.2**	**3.6**	**3.6**	**3.6**	**2.6**	**2.6**	**2.5**	**1.6**	**1.1**	**1.9**
IRA-6	138 - 203	5.0	**0.61**	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4/0.40	**0.50**	**2.9**	**0.69**	**0.62**	**0.80**	**0.88**	**0.69**	**0.79**
IRA-7	138 - 203	5.0	**0.8**	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	**0.7**	**0.6**	**0.69**	**0.67**	**0.74**	**0.64**	**0.77**
IRA-8	140 - 200	5.0	**0.97**	**0.85**	**0.70**	**0.72**	**0.75**	**0.62**	**0.70**	**0.67**	**0.73**	**0.83**	**0.97**	**0.99**	**0.96**	**1.0**	**0.89**	**0.94**
IRA-9	145 - 225	5.0	**1.9**	**1.7**	**1.6**	**1.4**	**1.4**	**1.3**	**1.6**	1.6/1.5	**1.6**	**1.7**	**1.7**	**1.7**	**1.6**	**1.5**	**1.4**	**1.6**
IRA-10-230	145 - 225	5.0	<0.5	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	<0.40	---	---	<0.50	<0.50	<0.50	< 0.5	< 0.5
IRA-11-210	150 - 210	5.0	---	---	---	---	---	---	---	---	**1.2**	**0.95**	**0.82**	**0.78**	**0.58**	**0.58**	**0.58**	**0.69**
IRA-12-210	140 - 210	5.0	---	---	---	---	---	---	---	---	**6.8**	**60**	**5.5**	**4.6**	**4.4**	**4.9**	**4.1**	**4.2**
IRA-13-210	150 - 210	5.0	---	---	---	---	---	---	---	---	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5
IRA-14-1	160 – 170	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5
IRA-14-2	190 - 200	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5
IRA-14-3	230 – 240	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5
IRA-14-4	260 - 270	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5
IRA-14-5	290 - 300	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5
IRA-24	168 - 218	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-25	170 – 240	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.57**
IRA-26	170 - 240	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5
IRA-31	159 - 209	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-32	180-230	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-33	269-289 309-329 339-349	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-34	180-229	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-35	297-347	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-36	180-210 220-240	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-37	275-285 295-315 335-355	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-38	175-225	5.0																
IRA-39	185-235	5.0																
IRA-41	350-400	5.0																

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	PCE															
			Dec-03	Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-	May-15
IRA-1	130 - 210	5.0	**1.5**	**1.8**	**1.9**	**9.1**	**10**	**19**	**16**	**15**	**27**	**35.9**	**24.2**	**36**	**33.5**	**35.5**	**33**	**34**
IRA-2	150 - 230	5.0	**0.95**	**0.99**	**1.1**	**1.0**	**1.2**	**1.0**	**0.7**	<0.5	<0.5	<0.5	<0.5	<0.5	---	**0.65**	<1.0	**0.43**
IRA-3	150 - 240	5.0	< 0.5	<0.5	<0.5	<0.5	**0.6**	**0.5**	**0.6**	**0.5**	**0.5**	**0.6**	**0.65**	**0.69**	**0.56**	---	--	**--**
IRA-4	130 - 220	5.0	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	**1.29**	**1.06**	**1.2**	**1.3**
IRA-5	130 - 210	5.0	---	**12**	**12**	**16**	**18**	**9.2**	**12**	**11**	**11.5**	**10**	**8.4**	**13**	**5.77**	**2.35**	<1.0	**0.61**
IRA-6	138 - 203	5.0	**0.70**	**0.85**	**0.87**	**1.2**	**1.4**	**1.3**	**1.2**	**0.9**	**1.1**	**1.0**	**0.9**	**0.86**	**1.22**	**0.86**	<1.0	<0.5
IRA-7	138 - 203	5.0	**0.57**	**0.50**	**0.59**	<0.5	**0.6**	**0.7**	**0.8**	<0.5	**1.0**	**0.8**	**1.0**	**1.1**	**1.47**	**1.06**	<1.0	**0.82**
IRA-8	140 - 200	5.0	**0.90**	**1.0**	**1.3**	**1.3**	**1.5**	**1.2**	**1.4**	---	---	**1.0**	**0.9**	**0.82**	**0.82**	<0.5	<1.0	<0.5
IRA-9	145 - 225	5.0	---	**1.3**	**1.2**	**1.3**	**1.4**	**1.2**	**1.5**	**1.2**	**1.3**	**1.2**	**1.1**	**1.0**	---	**0.63**	--	**0.84**
IRA-10-230	145 - 225	5.0	< 0.5	<0.5	<0.5	**0.6**	<0.5	<0.50	**0.6**	**0.8**	<0.5	<0.5	<0.5	<0.5	**0.79**	**0.69**	<1.0	**0.56**
IRA-11-210	150 - 210	5.0	**0.65**	**0.74**	**0.69**	**0.7**	**0.8**	**0.7**	**0.8**	**0.8**	**0.9**	**1.0**	**1.0**	**0.75**	<0.5	<0.5	<1.0	**0.46**
IRA-12-210	140 - 210	5.0	**2.7**	**1.8**	**1.8**	**1.4**	**1.2**	**1.3**	**1.0**	**0.8**	**1.0**	---	---	---	---	**1.13**	<1.0	**1.0**
IRA-13-210	150 - 210	5.0	< 0.5	< 0.5	<0.5	<0.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	**0.56**
IRA-14-1	160 – 170	5.0	---	< 0.5	---	---	---	---	---	---	---	---	---	---	---	---	--	--
IRA-14-2	190 - 200	5.0	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<1.0	**0.2**
IRA-14-3	230 – 240	5.0	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<1.0	**0.35**
IRA-14-4	260 - 270	5.0	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<1.0	<0.5
IRA-14-5	290 - 300	5.0	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	--	--
IRA-24	168 - 218	5.0	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**0.78**	**0.9**	<0.5	<0.5	<0.5	<1.0	**1.8**
IRA-25	170 – 240	5.0	**0.60**	**0.64**	**0.72**	**0.7**	**0.9**	**0.7**	**0.9**	**0.8**	**0.9**	**0.9**	**1**	**0.77**	**0.86**	**0.52**	<1.0	**0.7**
IRA-26	170 - 240	5.0	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	**0.43**
IRA-31	159 - 209	5.0	---	---	---	**0.5**	**0.6**	**0.6**	**0.6**	<0.5	---	---	---	**0.81**	**0.67**	<0.5	--	--
IRA-32	180-230	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.56**	<1.0	<0.5
IRA-33	269-289 309-329 339-349	5.0	---	**33**	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-34	180-229	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	--
IRA-35	297-347	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	--
IRA-36	180-210 220-240	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	**0.81**
IRA-37	275-285 295-315 335-355	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-38	175-225	5.0															<1.0	<0.5
IRA-39	185-235	5.0															1.7	**4.3**
IRA-41	350-400	5.0															<1.0	**0.42**

Notes:

µg/L - micrograms per liter

'---' - no sample collected

AWQS - Aquifer Water Quality Standard

TOC - top of casing

BOLD - Indicates analyte detected above the method detection limit

Shaded Cell - Indicates analyte detected above the associated AWQS

<0.5 - Indicates analyte not detected above the method detection limit, some results may be <0.50 or <0.500, but results have been truncated for consistency and readabililty

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	1,1-DCE																	
			May June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 00	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May 02	Sep-02	Jan-03	May-03	Dec-03	Mar-04
IRA-1	130 - 210	7.0	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5	<0.5
IRA-2	150 - 230	7.0	<2.0	<2.0	<4.0	<2.0	**1.8**	**1.6**	**1.4**	**1.3**	**1.6**	**2.1**	**1.7**	**1.8**	**1.8**	**1.2**	**1.4**	**1.4**	**1.1**	**1.3**
IRA-3	150 - 240	7.0	**1.1**	**1.1**	**2.9**	**2.8**	**1.3**	**1.5**	**3.8**	**5.0**	**1.4**	**1.8**	**4.1**	**4.6**	**2.6**	2.0/2.6	**5.5**	**0.92**	**4.2**	**1.7**
IRA-4	130 - 220	7.0	<0.5	<0.4	<0.4	<0.4	---	---	---	<0.4	<0.40	**1.3**	---	---	---	---	---	< 0.5	---	---
IRA-5	130 - 210	7.0	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	---	<0.5
IRA-6	138 - 203	7.0	**1.2**	**0.78**	**0.89**	**0.81**	**1.1**	**0.94**	<0.4	**0.89**	**1.3**	<0.40	**1.4**	**1.0**	**1.4**	**1.5**	**1.4**	**1.5**	**1.3**	**1.5**
IRA-7	138 - 203	7.0	**1.5**	<0.4	<0.4	<0.4	**0.85**	**0.5**	0.43	**0.62**	**0.84**	**1.6**	**1.2**	**1.1**	**1.1**	**1.2**	**1.1**	**1.3**	**1.1**	**1.2**
IRA-8	140 - 200	7.0	**1.8**	**1.5**	**1.2**	**1.8**	**2.3**	**1.9**	**1.7**	**1.6**	**1.6**	**1.1**	**1.9**	**1.8**	**1.7**	**1.7**	**1.7**	**1.7**	**1.5**	**1.6**
IRA-9	145 - 225	7.0	**1.8**	**1.6**	**1.7**	**1.8**	**1.7**	**1.2**	**1.9**	**1.9**	**1.9**	**2.3**	**2.1**	**2.0**	**1.9**	**1.7**	**2**	**2.2**	---	**2.0**
IRA-10-230	145 - 225	7.0	**1.9**	**2.2**	**2.8**	**2.9**	**3.2**	**3.3**	**2.8**	---	**2.8**	---	---	<0.50	**0.75**	**0.53**	**0.52**	**4.4**	**3.8**	**4.3**
IRA-11-210	150 - 210	7.0	---	---	---		---	---	---	---	**2.3**	**2.8**	**2.3**	**2.3**	**2.5**	**2.4**	**2.4**	**2.6**	**2.1**	**2.4**
IRA-12-210	140 - 210	7.0	---	---	---		---	---	---	---	**0.60**	**0.73**	**0.67**	**0.67**	**0.72**	**0.83**	**0.59**	**0.76**	**0.53**	**0.94**
IRA-13-210	150 - 210	7.0	---	---	---		---	---	---	---	**1.7**	**1.6**	**1.6**	**2.0**	1.9/1.8	**1.7**	**1.9**	**2.1**	**1.6**	**2.0**
IRA-14-1	160 – 170	7.0	---	---	---		---	---	---	---	**1.2**	**0.97**	**1.4**	**1.4**	**0.93**	**1.2**	**0.99**	< 0.5	---	<0.5
IRA-14-2	190 - 200	7.0	---	---	---		---	---	---	---	**1.1**	**0.87**	**0.61**	**1.2**	**1.2**	**0.51**	**1.1**	< 0.5	**0.67**	**0.79**
IRA-14-3	230 – 240	7.0	---	---	---		---	---	---	---	**1.4**	**0.75**	<0.50	<0.50	**1.2**	**0.51**	< 0.5	< 0.5	< 0.5	<0.5
IRA-14-4	260 - 270	7.0	---	---	---		---	---	---	---	**0.96**	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5	<0.5
IRA-14-5	290 - 300	7.0	---	---	---		---	---	---	---	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5	< 0.5
IRA-24	168 - 218	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-25	170 – 240	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	**6.2**	**5.2**	**6.2**
IRA-26	170 - 240	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	**4.0**	**3.0**	**3.0**
IRA-31	159 - 209	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-32	180-230	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-33	269-289 309-329 339-349	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-34	180-229	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-35	297-347	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-36	180-210 220-240	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-37	275-285 295-315 335-355	7.0	---	---	---		---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-38	175-225	7.0																		
IRA-39	185-235	7.0																		
IRA-41	350-400	7.0																		

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	1,1-DCE													
			May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-June-14	Mar-15
IRA-1	130 - 210	7.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-2	150 - 230	7.0	**1.6**	**3.6**	**3.5**	**2.4**	**4.6**	**3.8**	**3.7**	**3.5**	**2.7**	**1.8**	---	**1.74**	<1.0	**0.49**
IRA-3	150 - 240	7.0	<0.5	**2.1**	**2.1**	**1.8**	**1.1**	**0.9**	**0.8**	<0.5	**0.95**	**0.8**	**0.72**	---	---	---
IRA-4	130 - 220	7.0	<0.5	<0.5	<0.5	<0.5	**0.7**	**0.7**	**0.9**	**1.3**	**1.6**	**2.3**	**4.47**	**3.73**	**2.8**	**2.7**
IRA-5	130 - 210	7.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.55**	**2.3**	**1.5**	**1.8**
IRA-6	138 - 203	7.0	**1.4**	**1.7**	**2.2**	**2.2**	**2.1**	**2.0**	**2.5**	**1.8**	**2.8**	**2.4**	**3.05**	**2.79**	**1.1**	**1.7**
IRA-7	138 - 203	7.0	**1.2**	**1.0**	**1.0**	**1.1**	**0.8**	<0.5	**0.7**	<0.5	**0.65**	**0.5**	**0.68**	**1.0**	<1.0	<0.5
IRA-8	140 - 200	7.0	**1.6**	**2.1**	**2.4**	**2.6**	**3.7**	---	---	**4.5**	**4.8**	**3.4**	**3.6**	**2.01**	**1.8**	**2.0**
IRA-9	145 - 225	7.0	**1.9**	**1.9**	**1.9**	**1.8**	**1.8**	**2.1**	**2.7**	**3.1**	**3.6**	**3.8**	---	**2.66**	**---**	**2.4**
IRA-10-230	145 - 225	7.0	**3.5**	**3.6**	**2.7**	**2.4**	**3.4**	**3.8**	**1.2**	**1.2**	**0.9**	**0.5**	**1.29**	**0.8**	<1.0	**1.3**
IRA-11-210	150 - 210	7.0	**2.6**	**2.5**	**2.2**	**1.9**	**1.8**	**1.5**	**2.2**	**1.6**	**3**	**3.2**	**2.42**	**1.48**	**1.1**	**1.5**
IRA-12-210	140 - 210	7.0	**1.1**	**1.4**	**1.3**	**1.1**	**1.1**	**0.8**	**1.2**	---	---	---	---	**1.08**	<1.0	**1.6**
IRA-13-210	150 - 210	7.0	**1.8**	**2.3**	**2.6**	**---**	**2.2**	**2.0**	**2.1**	**2.4**	**2.8**	**2.2**	**2.64**	**2.65**	**1.5**	**2.1**
IRA-14-1	160 – 170	7.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-14-2	190 - 200	7.0	<0.5	**0.8**	**1.7**	**0.9**	**1.7**	**1.3**	**1.8**	**1.3**	**0.77**	**0.52**	**0.63**	---	<1.0	**0.65**
IRA-14-3	230 – 240	7.0	<0.5	<0.5	<0.5	**0.5**	**2.0**	**1.6**	**2.2**	**4.3**	**3.1**	**2.5**	**1.26**	---	<1.0	<0.5
IRA-14-4	260 - 270	7.0	<0.5	<0.5	<0.5	**0.7**	<0.5	<0.5	**2.5**	**2.5**	**1.3**	**1.6**	**1.25**	---	<1.0	<0.5
IRA-14-5	290 - 300	7.0	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**0.58**	**0.69**	**0.5**	**0.74**	---	---	---
IRA-24	168 - 218	7.0	**0.53**	**0.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.59**	<1.0	<0.5
IRA-25	170 – 240	7.0	**5.6**	**5.8**	**7.2**	**5.8**	**5.1**	**4.9**	**4.9**	**5.2**	**6**	**4.5**	**4.64**	**3.3**	**1.8**	**2.3**
IRA-26	170 - 240	7.0	**2.6**	**2.6**	**2.6**	**2.5**	**2.0**	**1.9**	**1.7**	**1.9**	**2.2**	**1.9**	**1.19**	**0.65**	---	<0.5
IRA-31	159 - 209	7.0	---	**2.1**	**3.5**	**4.4**	**4.6**	**3.2**	---	---	---	**3.6**	**3.77**	**1.8**	---	---
IRA-32	180-230	7.0	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-33	269-289 309-329 339-349	7.0	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-34	180-229	7.0	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	---
IRA-35	297-347	7.0	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	---
IRA-36	180-210 220-240	7.0	---	---	---	---	---	---	---	---	---	---	---	**3.31**	**2.8**	**3.6**
IRA-37	275-285 295-315 335-355	7.0	---	---	---	---	---	---	---	---	---	---	---	**0.68**	<1.0	**0.69**
IRA-38	175-225	7.0												---	**1.6/2.0/2.5**	**2.0**
IRA-39	185-235	7.0												---	**3.5**	**1.4**
IRA-41	350-400	7.0													<1.0	<0.5

Notes:

µg/L - micrograms per liter

'---' - no sample collected

AWQS - Aquifer Water Quality Standard

TOC - top of casing

BOLD - Indicates analyte detected above the method detection limit

Shaded Cell - Indicates analyte detected above the associated AWQS

<0.5 - Indicates analyte not detected above the method detection limit, some results may be <0.50 or <0.500, but results have been truncated for consistency and readabililty

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	cis 1,2-DCE																
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 00	Apr-May-00	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02	Jan-03	May-03	Dec-03
IRA-1	130 - 210	70.0	---	---	---	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5
IRA-2	150 - 230	70.0	---	---	---	<2.0	**2.5**	**2.5**	**3.0**	**3.8**	**4.0**	**2.0**	**1.2**	**0.9**	**0.85**	**0.95**	**1.0**	**0.91**	**0.71**
IRA-3	150 - 240	70.0	---	---	---	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	**1.9**	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.50
IRA-4	130 - 220	70.0	---	---	---	<0.4	---	---	---	<0.4	<0.4	<0.40	---	---	---	---	---	< 0.5	---
IRA-5	130 - 210	70.0	---	---	---	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	---
IRA-6	138 - 203	70.0	---	---	---	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5
IRA-7	138 - 203	70.0	---	---	---	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5
IRA-8	140 - 200	70.0	---	---	---	<0.4	<0.4	<0.4	**0.5**	**0.76**	**0.64**	**0.92**	**1.1**	**0.96**	**0.80**	**0.90**	**0.53**	< 0.5	< 0.5
IRA-9	145 - 225	70.0	---	---	---	<0.4	<0.4	<0.4	<0.4	<0.4	0.49	**0.71**	**0.71**	**0.84**	**0.94**	**1.1**	**1.1**	**1.1**	---
IRA-10-230	145 - 225	70.0	---	---	---	<0.4	<0.4	<0.4	<0.4	---	<0.40	---	---	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5
IRA-11-210	150 - 210	70.0	---	---	---	---	---	---	---	---	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5
IRA-12-210	140 - 210	70.0	---	---	---	---	---	---	---	---	<0.40	<0.40	<0.50	<0.50	<0.50	<0.50	< 0.5	< 0.5	< 0.5
IRA-13-210	150 - 210	70.0	---	---	---	---	---	---	---	---	**0.78**	**0.95**	**1.0**	**1.3**	**1.3**	**1.5**	**1.6**	**1.8**	**1.4**
IRA-14-1	160 – 170	70.0	---	---	---	---	---	---	---	---	**5.7**	**3.2**	**3.7**	**5.0**	**3.9**	**2.6**	**3.5**	**1.7**	---
IRA-14-2	190 - 200	70.0	---	---	---	---	---	---	---	---	**10**	**6.2**	**3.3**	**3.8**	**5.1**	**4.2**	**5.2**	**0.77**	**2.4**
IRA-14-3	230 – 240	70.0	---	---	---	---	---	---	---	---	<0.40	<0.40	**1.1**	**0.60**	<0.50	**0.66**	**0.65**	**0.6**	**0.99**
IRA-14-4	260 - 270	70.0	---	---	---	---	---	---	---	---	**0.75**	<0.40	**0.80**	**0.65**	**0.55**	**0.87**	< 0.5	**0.6**	**1.1**
IRA-14-5	290 - 300	70.0	---	---	---	---	---	---	---	---	**1.8**	**0.61**	**1.4**	**1.1**	<0.50	**0.60**	**1.7**	**0.8**	**2.3**
IRA-24	168 - 218	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-25	170 – 240	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5
IRA-26	170 - 240	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.4**	**1.0**
IRA-31	159 - 209	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-32	180-230	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-33	269-289 309-329 339-349	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-34	180-229	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-35	297-347	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-36	180-210 220-240	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-37	275-285 295-315 335-355	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-38	175-225	70.0																	
IRA-39	185-235	70.0																	
IRA-41	350-400	70.0																	

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	cis 1,2-DCE														
			Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-Jun-14	Mar-15
IRA-1	130 - 210	70.0	<0.5	<0.5	**0.5**	**0.5**	**1.1**	**1.0**	**0.8**	**1.7**	**2.1**	**2.2**	**1.9**	**2.41**	**1.7**	**1.2**	**1.5**
IRA-2	150 - 230	70.0	**0.66**	**0.81**	**0.8**	**0.7**	**1.4**	**0.7**	<0.5	<0.5	**0.6**	<0.5	<0.5	---	<0.5	<1.0	<0.5
IRA-3	150 - 240	70.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---
IRA-4	130 - 220	70.0	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-5	130 - 210	70.0	<0.5	<0.5	**0.7**	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.54**	<0.5	<0.5	<1.0	<0.5
IRA-6	138 - 203	70.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-7	138 - 203	70.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-8	140 - 200	70.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-9	145 - 225	70.0	**0.66**	**0.57**	**0.6**	<0.5	**0.5**	**0.6**	<0.5	<0.5	<0.5	<0.5	**0.69**	---	<0.5	<1.0	<0.5
IRA-10-230	145 - 225	70.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-11-210	150 - 210	70.0	<0.5	<0.5	**1.1**	**0.9**	**0.7**	**1.3**	**1.2**	**1.3**	**1.2**	**1.3**	**1.2**	**4.06**	**1.94**	**2.1**	**1.6**
IRA-12-210	140 - 210	70.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	<0.5	<1.0	<0.5
IRA-13-210	150 - 210	70.0	**1.6**	**1.5**	**1.0**	**0.8**	---	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-14-1	160 – 170	70.0	**2.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-14-2	190 - 200	70.0	**2.0**	**0.68**	**1.5**	**2.6**	**2.6**	**1.7**	**1.2**	**1.7**	**2.0**	**1.1**	**0.74**	**1.82**	---	**2.8**	<0.5
IRA-14-3	230 – 240	70.0	<0.5	**0.68**	**0.9**	**0.5**	**0.6**	**0.6**	**0.6**	<0.5	<0.5	<0.5	<0.5	**2.53**	---	<1.0	<0.5
IRA-14-4	260 - 270	70.0	**0.69**	**1.5**	**2.3**	**1.8**	**1.1**	**0.6**	**0.6**	**0.9**	**2.1**	**1.1**	**1.4**	**4.11**	---	**3.4**	**1.8**
IRA-14-5	290 - 300	70.0	**1.8**	**1.0**	**1.5**	**0.8**	**1.1**	**1.2**	**1.1**	**0.9**	**0.84**	**0.89**	**1.0**	**3.3**	---	---	---
IRA-24	168 - 218	70.0	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-25	170 – 240	70.0	<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	<0.5	**0.7**	**0.7**	**0.6**	**0.77**	**0.56**	<0.5	<1.0	<0.5
IRA-26	170 - 240	70.0	**1.2**	**0.95**	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5
IRA-31	159 - 209	70.0	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	<0.5	<0.5	<0.5	---	---
IRA-32	180-230	70.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-33	269-289 309-329 339-349	70.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-34	180-229	70.0	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	---
IRA-35	297-347	70.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	---
IRA-36	180-210 220-240	70.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-37	275-285 295-315 335-355	70.0	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<1.0	<0.5
IRA-38	175-225	70.0													---	<1.0	<0.5
IRA-39	185-235	70.0													---	<1.0	<0.5
IRA-41	350-400	70.0														<1.0	<0.5

Notes:

µg/L - micrograms per liter

'---' - no sample collected

AWQS - Aquifer Water Quality Standard

TOC - top of casing

BOLD - Indicates analyte detected above the method detection limit

Shaded Cell - Indicates analyte detected above the associated AWQS

<0.5 - Indicates analyte not detected above the method detection limit, some results may be <0.50 or <0.500, but results have been truncated for consistency and readabililty

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	TCE														
	IRA-1	IRA-2	IRA-3	IRA-4	IRA-5	IRA-6	IRA-7	IRA-8	IRA-9	IRA-10-230	IRA-11-210	IRA-12-210	IRA-13-210	IRA-14-1	IRA-14-2
Screened Interval (feet BTOC)	130 - 210	150 - 230	150 - 240	130 - 220	130 - 210	138 - 203	138 - 203	140 - 200	145 - 225	145 - 225	150 - 210	140 - 210	150 - 210	160 – 170	190 - 200
AWQS	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
May-Jun 99	<0.4	60.0	1.6	<0.5	<0.4	1.8	1.9	25.0	6.3	2.7	---	---	---	---	---
July-Sep 99	<0.4	65.0	1.0	<0.4	<0.4	1.1	1.6	22.0	5.9	0.69	---	---	---	---	---
Jan-Mar 00	<0.4	93.0	1.9	<0.4	<0.4	1.1	0.8	20.0	7.2	1.1	---	---	---	---	---
Jan-Mar 00	<0.4	95	1.7	<0.4	<0.4	0.99	1.0	22	7.2	<0.4	---	---	---	---	---
Apr-May 00	<0.4	120.0	1.0	---	<0.4	1.1	0.95	16.0	9.9	2.6	---	---	---	---	---
Sep-00	<0.4	82.0	1.2	---	<0.4	1.0	1.0	11.0	14.0	1.3	---	---	---	---	---
Dec-00	<0.4	130.0	2.6	---	<0.4	1.0	0.9	36.0	20.0	0.71	---	---	---	---	---
Jun-Jul 01	<0.4	180.0	2.8	<0.4	<0.4	1.6	1.2	36.0	25.0	---	---	---	---	---	---
Jun-01	<0.40	170.0	0.8	<0.40	<0.40	2.1	1.5	42.0	38.0	0.57	5.5	6.3	38	140	390
Sep-01	<0.40	88.0	0.7	<0.40	<0.40	2.9	2.1	59.0	52.0	---	5.2	4.9	49	72	140
Dec-01	<0.50	55.0	1.3	---	<0.50	2.6	2.1	49.0	48.0	---	4.7	5.4	57	110	72
Mar-02	<0.50	38.0	1.6	---	<0.50	2.3	2.2	55.0	51.0	<0.50	3.8	6.1	60	140	150
Apr-May 02	<0.50	40.0	1.0	---	<0.50	2.6	2.2	44.0	57.0	<0.50	6	6.9	69	120	180
Sep-02	<0.50	48.0	1.0	---	<0.50	2.6	2.3	58.0	79.0	0.66	4.9	6.8	93/97	64	78
Jan-03	< 0.5	50	1.4	---	< 0.5	1.9	2.0	32	68	< 0.5	7.1	3.8	88	71	120
May-03	< 0.5	36	0.54	< 0.5	< 0.5	2.0	2.2	26	48	1.1	15	4.2	77	37	23
Dec-03	< 0.5	37	0.75	---	---	1.8	1.4	7.1	---	1.3	23	0.94	58	---	53
Mar-04	<0.5	34	0.63	---	0.63	2.1	1.2	8.7	39	1.5	36	1.4	58	65	26
May-04	<0.5	39	<0.5	<0.5	0.58	2.1	1.4	12	33	1.3	38	1.9	62	---	30
Dec-04	<0.5	45	<0.5	<0.5	0.8	2.2	1.3	7.1	31	1.4	72	2.5	40	---	37
Apr-05	<0.5	37	<0.5	1.1	0.8	2.7	1.3	11	29	0.8	60	3.1	33	---	51
Oct-05	0.8	62	<0.5	<0.5	<0.5	2.4	1.4	6.5	32	<0.5	40	3.1	---	---	46
Apr-06	0.6	28	<0.5	<0.5	0.5	2.9	1.2	15	26	1.3	72	4.1	27	---	57
Oct-06	0.7	20	0.5	<0.5	0.5	2.9	1.2	---	23	1.9	75	3.1	18	---	32
Apr-07	1.2	21.6	<0.5	0.5	<0.5	4.5	1.3	---	24.6	0.6	72.3	5.7	18.8	---	48.5
Oct-07	1.7	30.7	<0.5	0.81	0.5	3.7	1.0	13.9	23.7	0.59	66.3	---	20	---	58
Apr-08	1.7	23	<0.5	0.9	<0.5	3.9	1.3	16.7	27.4	<0.5	71.3	---	21.2	---	43
Nov-08	1.6	11	0.52	1.3	0.68	5.3	1.3	27	41	<0.5	76	---	13	---	25
Oct-10	1.75	---	<0.5	3.26	2.91	5.5	1.39	14	---	<0.5	187	---	4.36	---	108
Dec-11	1.53	8.73	---	3.17	4.49	3.67	1.18	13.5	18.5	<0.5	97.6	1.61	2.58	---	---
Apr-May 14	1.3	9.4	---	3.4	8.2	1.9	<1.0	6.4	---	<1.0	97	1.3	1.5	---	130
Mar-15	1.3	1.4	---	6.7	6.4	1.3	0.64	4.3	3.1	<0.5	53	1.6	1.7	--	8.9

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	TCE															
	IRA-14-3	IRA-14-4	IRA-14-5	IRA-24	IRA-25	IRA-26	IRA-31	IRA-32	IRA-33	IRA-34	IRA-35	IRA-36	IRA-37	IRA-38	IRA-39	IRA-41
Screened Interval (feet BTOC)	230 – 240	260 - 270	290 - 300	168 - 218	170 – 240	170 - 240	159 - 209	180 - 230	269 - 289 309 - 329 339 - 349	180 - 229	297 - 347	180 - 210 220 - 240	275 - 285 295 - 315 335 - 355	175-225	185-235	350-400
AWQS	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
May-Jun 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-Jul 01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-01	**5.7**	**10**	**15**	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-01	**4**	**2.9**	**2.8**	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-01	**22**	**12**	**25**	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-02	**17**	**18**	**28**	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May 02	**11**	**18**	**11**	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-02	**29**	**32**	**20**	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-03	**26**	**14**	**36**	---	---	---	---	---	---	---	---	---	---	---	---	---
May-03	**24**	**22**	**21**	---	**2.5**	**56**	---	---	---	---	---	---	---	---	---	---
Dec-03	**23**	**23**	**36**	---	**5.7**	**47**	---	---	---	---	---	---	---	---	---	---
Mar-04	**13**	**20**	**33**	---	**6.9**	**42**	---	---	---	---	---	---	---	---	---	---
May-04	**23**	**25**	**22**	<0.5	**12**	**36**	---	---	---	---	---	---	---	---	---	---
Dec-04	**23**	**31**	**26**	<0.5	**18**	**26**	**1.9**	---	---	---	---	---	---	---	---	---
Apr-05	**16**	**27**	**16**	<0.5	**13**	**19**	**1.9**	---	---	---	---	---	---	---	---	---
Oct-05	**19**	**25**	**25**	**1.4**	**14**	**14**	**2.0**		---	---	---	---	---	---	---	---
Apr-06	**22**	**21**	**27**	<0.5	**26**	**8.6**	**1.7**	---	---	---	---	---	---	---	---	---
Oct-06	**19**	**19**	**22**	<0.5	**25**	**5.4**	**1.5**	---	---	---	---	---	---	---	---	---
Apr-07	**19.6**	**25.8**	**21.3**	<0.5	**33.8**	**3.9**	---	---	---	---	---	---	---	---	---	---
Oct-07	**12**	**36**	**18**	<0.5	**39.2**	**3.3**	---	---	---	---	---	---	---	---	---	---
Apr-08	**15**	**27**	**22**	<0.5	**35.2**	**2.6**	---	---	---	---	---	---	---	---	---	---
Nov-08	**9.7**	**33**	**18**	<0.5	**40**	**2.3**	**2.4**	---	---	---	---	---	---	---	---	---
Oct-10	**88.9**	**116**	**85.5**	<0.5	**23.4**	**1.44**	**1.51**	---	---	---	---	---	---	---	---	---
Dec-11	---	---	---	<0.5	**17.3**	**0.74**	**0.55**	<0.5	<0.5	---	<0.5	**8.32**	<0.5	---	---	---
Apr-May 14	**1.2**	**16**	---	<1.0	**6.4**	---	---	<1.0	<1.0	<1.0	<1.0	**20**	<1.0	<1.0	**7.2**	<1.0
Mar-15	**0.71**	**4.3**	--	**0.78**	**4.9**	**0.29**	---	<0.5	<0.5	---	---	**13**	<0.5	**1.2**	**22**	<0.5

Notes:
µg/L - micrograms per liter
ID - Identification
'---' - no sample collected
AWQS - Aquifer Water Quality Standard
BTOC - Below Top of Casing
TCE - Trichloroethylene
<0.5 - Indicates analyste not detected above the method detection limit
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	PCE													
	IRA-1	IRA-2	IRA-3	IRA-4	IRA-5	IRA-6	IRA-7	IRA-8	IRA-9	IRA-10-230	IRA-11-210	IRA-12-210	IRA-13-210	IRA-14-1
Screened Interval (feet BTOC)	130 - 210	150 - 230	150 - 240	130 - 220	130 - 210	138 - 203	138 - 203	140 - 200	145 - 225	145 - 225	150 - 210	140 - 210	150 - 210	160 – 170
AWQS	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
May-Jun 99	0.7	<2.0	<0.5	<0.5	1.1	0.61	0.8	0.97	1.9	<0.5	---	---	---	---
July-Sep 99	<0.4	<2.0	<0.4	<0.4	1.1	<0.4	<0.4	0.85	1.7	<0.4	---	---	---	---
July-Sep 99	<0.4	<0.4	0.46	<0.4	1.1	<0.4	<0.4	0.70	1.6	<0.4	---	---	---	---
Jan-Mar 00	<0.4	<0.4	<0.4	<0.4	1.6	<0.4	<0.4	0.72	1.4	<0.4	---	---	---	---
Jan-Mar 00	<0.4	1.3	<0.40	---	2.7	<0.4	<0.4	0.75	1.4	<0.4	---	---	---	---
Sep-00	<0.4	1.0	<0.40	---	2.6	<0.4	<0.4	0.62	1.3	<0.4	---	---	---	---
Dec-00	<0.4	1.0	0.59	---	3.2	<0.4	<0.4	0.70	1.6	<0.4	---	---	---	---
Mar-01	<0.4	1.0	0.59	<0.4	3.6	<0.4/0.40	<0.4	0.67	1.6/1.5	---	---	---	---	---
Jun-Jul 01	0.84	1.1	<0.40	<0.40	3.6	0.50	<0.40	0.73	1.6	<0.40	1.2	6.8	<0.40	---
Sep-01	<0.40	1.1	1.0	<0.40	3.6	2.9	0.7	0.83	1.7	---	0.95	60	<0.40	---
Dec-01	<0.50	1.0	<0.50	---	2.6	0.69	0.6	0.97	1.7	---	0.82	5.5	<0.50	---
Mar-02	<0.50	0.95	<0.50	---	2.6	0.62	0.69	0.99	1.7	<0.50	0.78	4.6	<0.50	---
Apr-May 02	<0.50	0.88	<0.50	---	2.5	0.80	0.67	0.96	1.6	<0.50	0.58	4.4	<0.50	---
Sep-02	<0.50	0.83	<0.50	---	1.6	0.88	0.74	1.0	1.5	<0.50	0.58	4.9	<0.50	---
Jan-03	0.52	0.83	< 0.5	---	1.1	0.69	0.64	0.89	1.4	< 0.5	0.58	4.1	< 0.5	< 0.5
May-03	0.70	0.95	< 0.5	< 0.5	1.9	0.79	0.77	0.94	1.6	< 0.5	0.69	4.2	< 0.5	< 0.5
Dec-03	1.5	0.95	< 0.5	---	---	0.70	0.57	0.90	---	< 0.5	0.65	2.7	< 0.5	---
Mar-04	1.8	0.99	<0.5	---	12	0.85	0.50	1.0	1.3	<0.5	0.74	1.8	< 0.5	< 0.5
May-04	1.9	1.1	<0.5	<0.5	12	0.87	0.59	1.3	1.2	<0.5	0.69	1.8	<0.5	---
Dec-04	9.1	1.0	<0.5	<0.5	16	1.2	<0.5	1.3	1.3	0.6	0.7	1.4	<0.5	---
Apr-05	10	1.2	0.6	<0.5	18	1.4	0.6	1.5	1.4	<0.5	0.8	1.2	<0.5	---
Oct-05	19	1.0	0.5	<0.5	9.2	1.3	0.7	1.2	1.2	<0.50	0.7	1.3	---	---
Apr-06	16	0.7	0.6	<0.5	12	1.2	0.8	1.4	1.5	0.6	0.8	1.0	<0.5	---
Oct-06	15	<0.5	0.5	<0.5	11	0.9	<0.5	---	1.2	0.8	0.8	0.8	<0.5	---
Apr-07	27	<0.5	0.5	<0.5	11.5	1.1	1.0	---	1.3	<0.5	0.9	1.0	<0.5	---
Oct-07	35.9	<0.5	0.6	<0.5	10	1.0	0.8	1.0	1.2	<0.5	1.0	---	<0.5	---
Apr-08	24.2	<0.5	0.65	0.6	8.4	0.9	1.0	0.9	1.1	<0.5	1.0	---	<0.5	---
Nov-08	36	<0.5	0.69	<0.5	13	0.86	1.1	0.82	1.0	<0.5	0.75	---	<0.5	---
Oct-10	33.5	---	0.56	1.29	5.77	1.22	1.47	0.82	---	0.79	<0.5	---	<0.5	---
Dec-11	35.5	0.65	---	1.06	2.35	0.86	1.06	<0.5	0.63	0.69	<0.5	1.13	<0.5	---
Apr-May-Jun-14	33	<1.0	---	1.2	<1.0	<1.0	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	---
Mar-15	34	0.43	---	1.3	0.61	<0.5	0.82	<0.5	0.84	0.56	0.46	1.0	0.56	---

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	PCE																
	IRA-14-2	IRA-14-3	IRA-14-4	IRA-14-5	IRA-24	IRA-25	IRA-26	IRA-31	IRA-32	IRA-33	IRA-34	IRA-35	IRA-36	IRA-37	IRA-38	IRA-39	IRA-41
Screened Interval (feet BTOC)	190 - 200	230 – 240	260 - 270	290 - 300	168 - 218	170 – 240	170 - 240	159 - 209	180-230	269-289 309-329 339-349	180-229	297-347	180-210 220-240	275-285 295-315 335-355	175-225	185-235	350-400
AWQS	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
May-Jun 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-Jul 01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May 02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-03	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	---	---	---	---	---	---	---	---	---	---
May-03	< 0.5	< 0.5	< 0.5	< 0.5	---	**0.57**	< 0.5	---	---	---	---	---	---	---	---	---	---
Dec-03	< 0.5	< 0.5	< 0.5	< 0.5	---	**0.60**	< 0.5	---	---	---	---	---	---	---	---	---	---
Mar-04	< 0.5	< 0.5	< 0.5	< 0.5	---	**0.64**	<0.5	---	---	---	---	---	---	---	---	---	---
May-04	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	**0.72**	<0.5	---	---	---	---	---	---	---	---	---	---
Dec-04	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	**0.7**	<0.5	**0.5**	---	---	---	---	---	---	---	---	---
Apr-05	<0.5	<0.5	<0.5	<0.5	<0.5	**0.9**	<0.5	**0.6**	---	---	---	---	---	---	---	---	---
Oct-05	<0.5	<0.5	<0.5	<0.5	<0.5	**0.7**	<0.5	**0.6**	---	---	---	---	---	---	---	---	---
Apr-06	<0.5	<0.5	<0.5	<0.5	<0.5	**0.9**	<0.5	**0.6**	---	---	---	---	---	---	---	---	---
Oct-06	<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**	<0.5	<0.5	---	---	---	---	---	---	---	---	---
Apr-07	<0.5	<0.5	<0.5	<0.5	**0.6**	**0.9**	<0.5	---	---	---	---	---	---	---	---	---	---
Oct-07	<0.5	<0.5	<0.5	<0.5	**0.78**	**0.9**	<0.5	---	---	---	---	---	---	---	---	---	---
Apr-08	<0.5	<0.5	<0.5	<0.5	**0.9**	**1**	<0.5	---	---	---	---	---	---	---	---	---	---
Nov-08	<0.5	<0.5	<0.5	<0.5	<0.5	**0.77**	<0.5	**0.81**	---	---	---	---	---	---	---	---	---
Oct-10	<0.5	<0.5	<0.5	<0.5	<0.5	**0.86**	<0.5	**0.67**	---	---	---	---	---	---	---	---	---
Dec-11	---	---	---	---	<0.5	**0.52**	<0.5	<0.5	**0.56**	<0.5	---	<0.5	<0.5	<0.5			
Apr-May-Jun-14	<1.0	<1.0	<1.0	---	<1.0	<1.0	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.7**	<1.0
Mar-15	**0.2**	**0.35**	<0.5	---	**1.8**	**0.7**	**0.43**	---	<0.5	<0.5	---	---	**0.81**	<0.5	<0.5	**4.3**	**0.42**

Notes:
µg/L = micrograms per liter
ID = Identification
'---' = no sample collected
AWQS = Aquifer Water Quality Standard
BTOC = Top of Casing
BOLD = Indicates analyte detected above the method detection limit
PCE = Tetrachloroethylene
Shaded Cell = Indicates analyte detected above the associated AWQS
<0.5 = Indicates analyte not detected above the method detection limit, some results may be <0.50 or <0.500, but results have been truncated for consistency and readabililty

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	1,1-DCE													
	IRA-1	IRA-2	IRA-3	IRA-4	IRA-5	IRA-6	IRA-7	IRA-8	IRA-9	IRA-10-230	IRA-11-210	IRA-12-210	IRA-13-210	IRA-14-1
Screened Interval (feet BTOC)	130 - 210	150 - 230	150 - 240	130 - 220	130 - 210	138 - 203	138 - 203	140 - 200	145 - 225	145 - 225	150 - 210	140 - 210	150 - 210	160 – 170
AWQS	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
May-Jun 99	<0.4	<2.0	1.1	<0.5	<0.4	1.2	1.5	1.8	1.8	1.9	---	---	---	---
July-Sep 99	<0.4	<2.0	1.1	<0.4	<0.4	0.78	<0.4	1.5	1.6	2.2	---	---	---	---
July-Sep 99	<0.4	<4.0	2.9	<0.4	<0.4	0.89	<0.4	1.2	1.7	2.8	---	---	---	---
Jan-Mar 00	<0.4	<2.0	2.8	<0.4	<0.4	0.81	<0.4	1.8	1.8	2.9				
Jan-Mar 00	<0.4	1.8	1.3	---	<0.4	1.1	0.85	2.3	1.7	3.2	---	---	---	---
Sep-00	<0.4	1.6	1.5	---	<0.4	0.94	0.5	1.9	1.2	3.3	---	---	---	---
Dec-00	<0.4	1.4	3.8	---	<0.4	<0.4	0.43	1.7	1.9	2.8	---	---	---	---
Mar-01	<0.4	1.3	5.0	<0.4	<0.4	0.89	0.62	1.6	1.9	---	---	---	---	---
Jun-Jul 01	<0.40	1.6	1.4	<0.40	<0.40	1.3	0.84	1.6	1.9	2.8	2.3	0.60	1.7	1.2
Sep-01	<0.40	2.1	1.8	1.3	<0.40	<0.40	1.6	1.1	2.3	---	2.8	0.73	1.6	0.97
Dec-01	<0.50	1.7	4.1	---	<0.50	1.4	1.2	1.9	2.1	---	2.3	0.67	1.6	1.4
Mar-02	<0.50	1.8	4.6	---	<0.50	1.0	1.1	1.8	2.0	<0.50	2.3	0.67	2.0	1.4
Apr-May 02	<0.50	1.8	2.6	---	<0.50	1.4	1.1	1.7	1.9	0.75	2.5	0.72	1.9/1.8	0.93
Sep-02	<0.50	1.2	2.0/2.6	---	<0.50	1.5	1.2	1.7	1.7	0.53	2.4	0.83	1.7	1.2
Jan-03	< 0.5	1.4	5.5	---	< 0.5	1.4	1.1	1.7	2	0.52	2.4	0.59	1.9	0.99
May-03	< 0.5	1.4	0.92	< 0.5	< 0.5	1.5	1.3	1.7	2.2	4.4	2.6	0.76	2.1	< 0.5
Dec-03	< 0.5	1.1	4.2	---	---	1.3	1.1	1.5	---	3.8	2.1	0.53	1.6	---
Mar-04	<0.5	1.3	1.7	---	<0.5	1.5	1.2	1.6	2.0	4.3	2.4	0.94	2.0	<0.5
May-04	<0.5	1.6	<0.5	<0.5	<0.5	1.4	1.2	1.6	1.9	3.5	2.6	1.1	1.8	---
Dec-04	<0.5	3.6	2.1	<0.5	<0.5	1.7	1.0	2.1	1.9	3.6	2.5	1.4	2.3	---
Apr-05	<0.5	3.5	2.1	<0.5	<0.5	2.2	1.0	2.4	1.9	2.7	2.2	1.3	2.6	---
Oct-05	<0.5	2.4	1.8	<0.5	<0.5	2.2	1.1	2.6	1.8	2.4	1.9	1.1	---	---
Apr-06	<0.5	4.6	1.1	0.7	<0.5	2.1	0.8	3.7	1.8	3.4	1.8	1.1	2.2	---
Oct-06	<0.5	3.8	0.9	0.7	<0.5	2.0	<0.5	---	2.1	3.8	1.5	0.8	2.0	---
Apr-07	<0.5	3.7	0.8	0.9	<0.5	2.5	0.7	---	2.7	1.2	2.2	1.2	2.1	---
Oct-07	<0.5	3.5	<0.5	1.3	<0.5	1.8	<0.5	4.5	3.1	1.2	1.6	---	2.4	---
Apr-08	<0.5	2.7	0.95	1.6	<0.5	2.8	0.65	4.8	3.6	0.9	3	---	2.8	---
Nov-08	<0.5	1.8	0.8	2.3	<0.5	2.4	0.5	3.4	3.8	0.5	3.2	---	2.2	---
Oct-10	<0.5	---	0.72	4.47	1.55	3.05	0.68	3.6	---	1.29	2.42	---	2.64	---
Dec-11	<0.5	1.74	---	3.73	2.3	2.79	1.0	2.01	2.66	0.8	1.48	1.08	2.65	---
Apr-May-Jun-14	<1.0	<1.0	---	2.8	1.5	1.1	<1.0	1.8	---	<1.0	1.1	<1.0	1.5	---
Mar-15	<0.5	0.49	---	2.7	1.8	1.7	<0.5	2.0	2.4	1.3	1.5	1.6	2.1	---

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	1,1-DCE																
	IRA-14-2	IRA-14-3	IRA-14-4	IRA-14-5	IRA-24	IRA-25	IRA-26	IRA-31	IRA-32	IRA-33	IRA-34	IRA-35	IRA-36	IRA-37	IRA-38	IRA-39	IRA-41
Screened Interval (feet BTOC)	190 - 200	230 – 240	260 - 270	290 - 300	168 - 218	170 – 240	170 - 240	159 - 209	180-230	269-289 309-329 339-349	180-229	297-347	180-210 220-240	275-285 295-315 335-355	175-225	185-235	350-400
AWQS	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	5.0	5.0	5.0
May-Jun 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00															---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-Jul 01	**1.1**	**1.4**	**0.96**	<0.40	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-01	**0.87**	**0.75**	<0.40	<0.40	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-01	**0.61**	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-02	**1.2**	<0.50	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May 02	**1.2**	**1.2**	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-02	**0.51**	**0.51**	<0.50	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-03	**1.1**	< 0.5	< 0.5	< 0.5	---	---	---	---	---	---	---	---	---	---	---	---	---
May-03	< 0.5	< 0.5	< 0.5	< 0.5	---	**6.2**	**4.0**	---	---	---	---	---	---	---	---	---	---
Dec-03	**0.67**	< 0.5	< 0.5	< 0.5	---	**5.2**	**3.0**	---	---	---	---	---	---	---	---	---	---
Mar-04	**0.79**	<0.5	<0.5	< 0.5	---	**6.2**	**3.0**	---	---	---	---	---	---	---	---	---	---
May-04	<0.5	<0.5	<0.5	< 0.5	**0.53**	**5.6**	**2.6**	---	---	---	---	---	---	---	---	---	---
Dec-04	**0.8**	<0.5	<0.5	< 0.5	**0.5**	**5.8**	**2.6**	**2.1**	---	---	---	---	---	---	---	---	---
Apr-05	**1.7**	<0.5	<0.5	<0.5	<0.5	**7.2**	**2.6**	**3.5**	---	---	---	---	---	---	---	---	---
Oct-05	**0.9**	**0.5**	**0.7**	<0.5	<0.5	**5.8**	**2.5**	**4.4**	---	---	---	---	---	---	---	---	---
Apr-06	**1.7**	**2.0**	<0.5	<0.5	<0.5	**5.1**	**2.0**	**4.6**	---	---	---	---	---	---	---	---	---
Oct-06	**1.3**	**1.6**	<0.5	<0.5	<0.5	**4.9**	**1.9**	**3.2**	---	---	---	---	---	---	---	---	---
Apr-07	**1.8**	**2.2**	**2.5**	**0.6**	<0.5	**4.9**	**1.7**	---	---	---	---	---	---	---	---	---	---
Oct-07	**1.3**	**4.3**	**2.5**	**0.58**	<0.5	**5.2**	**1.9**	---	---	---	---	---	---	---	---	---	---
Apr-08	**0.77**	**3.1**	**1.3**	**0.69**	<0.5	**6**	**2.2**	---	---	---	---	---	---	---	---	---	---
Nov-08	**0.52**	**2.5**	**1.6**	**0.5**	<0.5	**4.5**	**1.9**	**3.6**	---	---	---	---	---	---	---	---	---
Oct-10	**0.63**	**1.26**	**1.25**	**0.74**	<0.5	**4.64**	**1.19**	**3.77**	---	---	---	---	---	---	---	---	---
Dec-11	---	---	---	---	**0.59**	**3.3**	**0.65**	**1.8**	<0.5	<0.5	---	<0.5	**3.31**	**0.68**	---	---	---
Apr-May-Jun-14	<1.0	<1.0	<1.0	---	<1.0	**1.8**	---	---	<1.0	<1.0	<1.0	<1.0	**2.8**	<1.0	**1.6/2.0/2.5**	**3.5**	<1.0
Mar-15	**0.65**	<0.5	<0.5	---	<0.5	**2.3**	<0.5	---	<0.5	<0.5	---	---	**3.6**	**0.69**	**2.0**	**1.4**	<0.5

Notes:
1,1-DCE - 1,1-dichloroethylene
µg/L - micrograms per liter
AWQS - Aquifer Water Quality Standard
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
BTOC - below top of casing
ID - Identification
'---' - no sample collected
<0.5 - Indicates analyte not detected above the method detection limit, some results may be <0.50 or <0.500, but results have been truncated for consistency and readabililty

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	cis 1,2-DCE												
	IRA-1	IRA-2	IRA-3	IRA-4	IRA-5	IRA-6	IRA-7	IRA-8	IRA-9	IRA-10-230	IRA-11-210	IRA-12-210	IRA-13-210
Screened Interval (feet BTOC)	130 - 210	150 - 230	150 - 240	130 - 220	130 - 210	138 - 203	138 - 203	140 - 200	145 - 225	145 - 225	150 - 210	140 - 210	150 - 210
AWQS	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
May-Jun 99	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	<0.4	<2.0	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	---	---
Jan-Mar 00	<0.4	**2.5**	<0.4	---	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	---	---
Sep-00	<0.4	**2.5**	<0.4	---	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	---	---	---
Dec-00	<0.4	**3.0**	<0.4	---	<0.4	<0.4	<0.4	**0.5**	<0.4	<0.4	---	---	---
Mar-01	<0.4	**3.8**	<0.4	<0.4	<0.4	<0.4	<0.4	**0.76**	<0.4	---	---	---	---
Jun-Jul 01	<0.40	**4.0**	<0.4	<0.4	<0.4	<0.4	<0.4	**0.64**	0.49	<0.40	<0.40	<0.40	**0.78**
Sep-01	<0.40	**2.0**	**1.9**	<0.40	<0.40	<0.40	<0.40	**0.92**	**0.71**	---	<0.40	<0.40	**0.95**
Dec-01	<0.50	**1.2**	<0.50	---	<0.50	<0.50	<0.50	**1.1**	**0.71**	---	<0.50	<0.50	**1.0**
Mar-02	<0.50	**0.9**	<0.50	---	<0.50	<0.50	<0.50	**0.96**	**0.84**	<0.50	<0.50	<0.50	**1.3**
Apr-May 02	<0.50	**0.85**	<0.50	---	<0.50	<0.50	<0.50	**0.80**	**0.94**	<0.50	<0.50	<0.50	**1.3**
Sep-02	<0.50	**0.95**	<0.50	---	<0.50	<0.50	<0.50	**0.90**	**1.1**	<0.50	<0.50	<0.50	**1.5**
Jan-03	< 0.5	**1.0**	< 0.5	---	< 0.5	< 0.5	< 0.5	**0.53**	**1.1**	< 0.5	< 0.5	< 0.5	**1.6**
May-03	< 0.5	**0.91**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.1**	< 0.5	< 0.5	< 0.5	**1.8**
Dec-03	< 0.5	**0.71**	< 0.50	---	---	< 0.5	< 0.5	< 0.5	---	< 0.5	< 0.5	< 0.5	**1.4**
Mar-04	<0.5	**0.66**	<0.5	---	<0.5	<0.5	<0.5	<0.5	**0.66**	<0.5	<0.5	<0.5	**1.6**
May-04	<0.5	**0.81**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.57**	<0.5	<0.5	<0.5	**1.5**
Dec-04	**0.5**	**0.8**	<0.5	<0.5	**0.7**	<0.5	<0.5	<0.5	**0.6**	<0.5	**1.1**	<0.5	**1.0**
Apr-05	**0.5**	**0.7**	<0.5	<0.5	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	**0.9**	<0.5	**0.8**
Oct-05	**1.1**	**1.4**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.5**	<0.5	**0.7**	<0.5	---
Apr-06	**1.0**	**0.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	**1.3**	<0.5	**0.6**
Oct-06	**0.8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5	<0.5	**1.2**	<0.5	<0.5
Apr-07	**1.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5	<0.5	**1.3**	<0.5	<0.5
Oct-07	**2.1**	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.2**	---	<0.5
Apr-08	**2.2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.3**	---	<0.5
Nov-08	**1.9**	<0.5	<0.5	<0.5	**0.54**	<0.5	<0.5	<0.5	**0.69**	<0.5	**1.2**	---	<0.5
Oct-10	**2.41**	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5	**4.06**	---	<0.5
Dec-11	**1.7**	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.94**	<0.5	<0.5
Apr-May-Jun-14	1.2	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.1**	<1.0	<1.0
May-15	1.5	<0.5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.6**	<0.5	<0.5

Table 15
Individual Tables of Selected VOCs in the Regional Aquifer Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	cis 1,2-DCE																	
	IRA-14-1	IRA-14-2	IRA-14-3	IRA-14-4	IRA-14-5	IRA-24	IRA-25	IRA-26	IRA-31	IRA-32	IRA-33	IRA-34	IRA-35	IRA-36	IRA-37	IRA-38	IRA-39	IRA-41
Screened Interval (feet BTOC)	160 – 170	190 - 200	230 – 240	260 - 270	290 - 300	168 - 218	170 – 240	170 - 240	159 - 209	180-230	269-289 309-329 339-349	180-229	297-347	180-210 220-240	275-285 295-315 335-355	175-225	185-235	350-400
AWQS	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
May-Jun 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sep 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-Jul 01	**5.7**	**10**	<0.40	**0.75**	**1.8**	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-01	**3.2**	**6.2**	<0.40	<0.40	**0.61**	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-01	**3.7**	**3.3**	**1.1**	**0.80**	**1.4**	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-02	**5.0**	**3.8**	**0.60**	**0.65**	**1.1**	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May 02	**3.9**	**5.1**	<0.50	**0.55**	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-02	**2.6**	**4.2**	**0.66**	**0.87**	**0.60**	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-03	**3.5**	**5.2**	**0.65**	< 0.5	**1.7**	---	---	---	---	---	---	---	---	---	---	---	---	---
May-03	**1.7**	**0.77**	**0.6**	**0.6**	**0.8**	---	< 0.5	**1.4**	---	---	---	---	---	---	---	---	---	---
Dec-03	---	**2.4**	**0.99**	**1.1**	**2.3**	---	< 0.5	**1.0**	---	---	---	---	---	---	---	---	---	---
Mar-04	**2.5**	**2.0**	<0.5	**0.69**	**1.8**	---	<0.5	**1.2**	---	---	---	---	---	---	---	---	---	---
May-04	---	**0.68**	**0.68**	**1.5**	**1.0**	<0.5	<0.5	**0.95**	---	---	---	---	---	---	---	---	---	---
Dec-04	---	**1.5**	**0.9**	**2.3**	**1.5**	<0.5	<0.5	**0.8**	<0.5	---	---	---	---	---	---	---	---	---
Apr-05	---	**2.6**	**0.5**	**1.8**	**0.8**	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---
Oct-05	---	**2.6**	**0.6**	**1.1**	**1.1**	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---
Apr-06	---	**1.7**	**0.6**	**0.6**	**1.2**	<0.5	**0.5**	<0.5	<0.5	---	---	---	---	---	---	---	---	---
Oct-06	---	**1.2**	**0.6**	**0.6**	**1.1**	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---	---	---	---	---
Apr-07	---	**1.7**	<0.5	**0.9**	**0.9**	<0.5	**0.7**	<0.5	---	---	---	---	---	---	---	---	---	---
Oct-07	---	**2.0**	<0.5	**2.1**	**0.84**	<0.5	**0.7**	<0.5	---	---	---	---	---	---	---	---	---	---
Apr-08	---	**1.1**	<0.5	**1.1**	**0.89**	<0.5	**0.6**	<0.5	---	---	---	---	---	---	---	---	---	---
Nov-08	---	**0.74**	<0.5	**1.4**	**1.0**	<0.5	**0.77**	<0.5	<0.5	---	---	---	---	---	---	---	---	---
Oct-10	---	**1.82**	**2.53**	**4.11**	**3.3**	<0.5	**0.56**	<0.5	<0.5	---	---	---	---	---	---	---	---	---
Dec-11	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5	<0.5	<0.5	---	---	---
Apr-May-Jun-14	---	**2.8**	<1.0	**3.4**	---	<1.0	<1.0	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
May-15	---	<0.5	<0.5	**1.8**	---	<0.5	<0.5	<0.5	---	<0.5	<0.5	---	---	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:
'---' - no sample collected
µg/L - micrograms per liter
AWQS - Aquifer Water Quality Standard
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
BTOC - below top of casing
cis-1,2-DCE = cis-1,2-dichloroethylene
ID - Identification
<0.5 - Indicates analyte not detected above the method detection limit, some results may be <0.50 or <0.500, but results have been truncated for consistency and readabililty

Table 16
Individual Tables of Selected Metals in the Regional Aquifer
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	ARSENIC														
			May-Jun-99	July-Sept-99	Oct-Dec-99	Jan-Mar 2000	Apr-May-00	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02	Jan-03
IRA-1	130 - 210	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	**0.022**	<0.040	**0.018**
IRA-2	150 - 230	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-3	150 - 240	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-4	130 - 220	0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	<0.050	<0.050	<0.050	---	---	---	---	---
IRA-5	130 - 210	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-6	138 - 203	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-7	138 - 203	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-8	140 - 200	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-9	145 - 225	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-10-230	145 - 225	0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	---	<0.050	---	---	<0.040	<0.040	<0.040	< 0.0050
IRA-11-210	150 - 210	0.05	---	---	---		---	---	---	---	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-12-210	140 - 210	0.05	---	---	---		---	---	---	---	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-13-210	150 - 210	0.05	---	---	---		---	---	---	---	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-14-1	160 – 170	0.05	---	---	---		---	---	---	---	**0.063**	<0.050	<0.040	<0.040	<0.040	<0.040	**0.0058**
IRA-14-2	190 - 200	0.05	---	---	---		---	---	---	---	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-14-3	230 – 240	0.05	---	---	---		---	---	---	---	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-14-4	260 - 270	0.05	---	---	---		---	---	---	---	**0.15**	<0.050	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-14-5	290 - 300	0.05	---	---	---		---	---	---	---	**0.27**	**0.17**	<0.040	<0.040	<0.040	<0.040	< 0.0050
IRA-24	168 - 218	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-25	170 – 240	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-26	170 - 240	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-31	159 - 209	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-32	180-230	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-33	269-289 309-329 339-349	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-34	180-229	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-35	297-347	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-36	180-210 220-240	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-37	275-285 295-315 335-355	0.05	---	---	---		---	---	---	---	---	---	---	---	---	---	---
IRA-38	175-225																
IRA-39	185-235																
IRA-41	350-400																

Table 16
Individual Tables of Selected Metals in the Regional Aquifer
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

ARSENIC																
May-03	Dec-03	Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-Jun-14	Mar-15
0.018	**0.017**	**0.029**	**0.015**	**0.014**	**0.012**	**0.018**	**0.015**	**0.014**	**0.013**	**0.018**	**0.017**	**0.012**	<0.010	<0.010	---	---
< 0.0050	**0.0032**	**0.020**	**0.0027**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	---	---
< 0.0050	**0.0036**	**0.015**	**0.0027**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---
0.014	---	---	**0.0090**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	**---**	**0.018**	**0.0020**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	**0.0028**	< 0.010	**0.0024**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	**0.0037**	**0.017**	**0.0029**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	**0.0033**	< 0.010	**0.0032**	<0.010	<0.010	<0.010	<0.010	---	---	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	---	< 0.010	**0.0022**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	---	---
< 0.0050	**0.0022**	< 0.010	**0.0018**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	**0.0034**	**0.0033**	**0.0023**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	**0.0031**	**0.038**	**0.0030**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	<0.010	---	---
< 0.0050	**0.0030**	< 0.010	**0.0023**	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	---	**0.045**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
< 0.0050	**0.0034**	**0.034**	**0.0033**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---
< 0.0050	**0.0024**	**0.024**	**0.0024**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---
< 0.0050	**0.0021**	**0.025**	**0.0025**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---
< 0.0050	**0.0034**	**0.032**	**0.0026**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---
---	---	---	**0.0030**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
---	**0.0026**	< 0.010	**0.0025**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
< 0.0050	**0.0024**	< 0.010	**0.0023**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
---	---	---	---	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	<0.010	<0.010	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---
															---	---
															---	---

Notes:
'---' - no sample collected
AWQS - Aquifer Water Quality Standard
mg/L - milligrams per liter
TOC - top of casing
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.50 - Indicates analyte not detected above the method detection limit
* - Maximum Contaminant Level (MCL) for Arsenic is 0.01 mg/L

Table 16
Individual Tables of Selected Metals in the Regional Aquifer
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	Screened Interval (feet below TOC)	AWQS*	CHROMIUM													
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 00	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02
IRA-1	130 - 210	0.10	<0.01	<0.01	<0.01	<0.01	<0.010	**0.015**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
IRA-2	150 - 230	0.10	**0.91**	**1.0**	**1.0**	**0.94**	**1.2**	**1.3**	**1.6**	**1.4**	**1.2**	**0.71**	**0.44**	**0.27**	**0.26**	**0.26**
IRA-3	150 - 240	0.10	<0.01	<0.01	<0.01	**0.017**	<0.010	<0.010	**0.013**	**0.015**	**0.012**	<0.010	**0.011**	**0.014**	<0.010	**0.02**
IRA-4	130 - 220	0.10	**0.01**	<0.01	<0.01	<0.01	---	---	---	<0.010	<0.010	**0.010**	---	---	---	---
IRA-5	130 - 210	0.10	<0.01	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
IRA-6	138 - 203	0.10	<0.01	<0.01	<0.01	<0.01	**0.058**	<0.010	<0.010	**0.016**	**0.019**	**0.01**	**0.01**	**0.012**	**0.012**	**0.012**
IRA-7	138 - 203	0.10	<0.01	<0.01	<0.01	**0.016**	**0.017**	**0.027**	**0.015**	**0.015**	**0.018**	**0.014**	**0.026**	**0.050**	**0.035**	**0.043**
IRA-8	140 - 200	0.10	**0.03**	**0.03**	**0.028**	**0.029**	**0.029**	**0.038**	**0.039**	**0.042**	**0.055**	**0.052**	**0.077**	**0.074**	**0.063**	**0.054**
IRA-9	145 - 225	0.10	**0.04**	**0.05**	**0.044**	**0.054**	**0.059**	**0.14**	**0.24**	**0.33**	**0.51**	**0.73**	**0.72**	**0.76**	**0.88**	**1.0**
IRA-10-230	145 - 225	0.10	<0.01	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010	---	**0.15**	---	---	**0.087**	**0.45**	**0.19**
IRA-11-210	150 - 210	0.10	---	---	---		---	---	---	---	**0.021**	<0.010	<0.010	<0.010	**0.11**	<0.010
IRA-12-210	140 - 210	0.10	---	---	---		---	---	---	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
IRA-13-210	150 - 210	0.10	---	---	---		---	---	---	---	**0.019**	**0.028**	<0.046	**0.045**	**0.046**	**0.055**
IRA-14-1	160 – 170	0.10	---	---	---		---	---	---	---	**1.6**	**0.31**	**0.51**	**0.62**	**0.10**	**0.47**
IRA-14-2	190 - 200	0.10	---	---	---		---	---	---	---	**2.4**	**1.8**	**0.57**	**0.95**	**1.0**	**1.1**
IRA-14-3	230 – 240	0.10	---	---	---		---	---	---	---	<0.010	<0.010	<0.010	<0.010	<0.010	**0.012**
IRA-14-4	260 - 270	0.10	---	---	---		---	---	---	---	<0.010	<0.010	<0.010	<0.010	**0.017**	**0.010**
IRA-14-5	290 - 300	0.10	---	---	---		---	---	---	---	**0.059**	<0.010	**0.017**	<0.010	<0.010	<0.010
IRA-24	168 - 218	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-25	170 – 240	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-26	170 - 240	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-31	159 - 209	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-32	180 - 230	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-33	269 - 289 309 - 329 339 - 349	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-34	180 - 229	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-35	297 - 347	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-36	180 - 210 220 - 240	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-37	275 - 285 295 - 315 335 - 355	0.10	---	---	---		---	---	---	---	---	---	---	---	---	---
IRA-38	175-225	0.10														
IRA-39	185-235	0.10														
IRA-41	350-400	0.10														

Table 16
Individual Tables of Selected Metals in the Regional Aquifer
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	Screened Interval (feet below TOC)	AWQS*	CHROMIUM																	
			Jan-03T	May-03T	Dec-03T	Mar-04T	May-04T	Dec-04T	Apr-05T	Oct-05D	Apr-06D	Oct-06D	Apr-07D	Oct-07D	Apr-08D	Nov-08D	Oct-10D	Dec-11D	Apr-May-Jun-14T	Mar-15T
IRA-1	130 - 210	0.10	< 0.010	< 0.023	**0.061**	**0.075**	**0.069**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	**0.02**
IRA-2	150 - 230	0.10	**0.22**	**0.14**	**0.14**	**0.11**	**0.083**	**0.10**	**0.087**	**0.12**	**0.049**	**0.038**	**0.031**	**0.039**	**0.027**	**0.012**	---	**0.0262**	**0.09**	**0.017**
IRA-3	150 - 240	0.10	**0.015**	< 0.010	**0.0068**	**0.016**	**0.0054**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---
IRA-4	130 - 220	0.10	---	**0.021**	---	---	**0.032**	**0.046**	**0.083**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**0.012**	<0.010	**0.0191**	**0.098**	**0.079**
IRA-5	130 - 210	0.10	< 0.010	< 0.010	---	< 0.010	< 0.0010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**0.0151**	**0.089**	**0.097**
IRA-6	138 - 203	0.10	**0.017**	**0.011**	**0.024**	**0.019**	**0.018**	**0.030**	**0.024**	**0.026**	**0.026**	**0.024**	**0.026**	**0.025**	**0.021**	**0.026**	**0.028**	**0.0132**	**0.016**	**0.0076**
IRA-7	138 - 203	0.10	**0.13**	**0.012**	**0.063**	**0.041**	**0.052**	**0.043**	**0.022**	**0.012**	**0.015**	<0.010	**0.011**	<0.010	**0.012**	**0.01**	**0.011**	<0.010	**0.032**	**0.04**
IRA-8	140 - 200	0.10	**0.056**	**0.068**	**0.038**	**0.051**	**0.050**	**0.047**	**0.047**	**0.031**	**0.13**	---	---	**0.079**	**0.15**	**0.23**	**0.569**	**0.487**	**0.22**	**0.12**
IRA-9	145 - 225	0.10	**0.93**	**0.77**	---	**0.43**	**0.38**	**0.37**	**0.30**	**0.27**	**0.22**	**0.21**	**0.18**	**0.16**	**0.14**	**0.18**	---	**0.0628**	---	**0.071**
IRA-10-230	145 - 225	0.10	**0.20**	< 0.010	**0.015**	**0.041**	**0.0069**	**0.012**	**0.012**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**0.022**	**0.019**
IRA-11-210	150 - 210	0.10	< 0.010	**0.017**	**0.062**	**0.12**	**0.15**	**0.31**	**0.29**	**0.29**	**0.33**	**0.27**	**0.22**	**0.21**	**0.2**	**0.14**	**0.158**	**0.086**	**0.11**	**0.055**
IRA-12-210	140 - 210	0.10	< 0.010	< 0.010	**0.0026**	**0.012**	**0.0075**	<0.010	<0.010	<0.010	**0.012**	**0.011**	**0.011**	---	---	---	---	**0.0117**	**0.25**	**0.03**
IRA-13-210	150 - 210	0.10	**0.055**	**0.047**	**0.030**	**0.027**	**0.021**	**0.039**	**0.025**	---	**0.021**	**0.023**	**0.021**	**0.019**	**0.02**	**0.02**	<0.010	**0.0114**	**0.091**	**0.02**
IRA-14-1	160 – 170	0.10	**0.61**	**0.57**	---	**0.051**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-14-2	190 - 200	0.10	**0.80**	**0.13**	**0.28**	**0.30**	**0.33**	**0.26**	**0.24**	**0.31**	**0.12**	**0.092**	**0.12**	**0.16**	**0.11**	**0.068**	**0.012**	---	**0.49**	**0.01**
IRA-14-3	230 – 240	0.10	< 0.010	< 0.010	< 0.0010	**0.016**	**0.0078**	<0.010	**0.012**	**0.020**	**0.012**	**0.012**	**0.011**	<0.010	<0.010	<0.010	**0.057**	---	<0.01	**0.0015**
IRA-14-4	260 - 270	0.10	< 0.010	< 0.010	**0.0027**	**0.015**	**0.001**	<0.010	<0.010	<0.010	<0.010	<0.010	**0.021**	<0.010	<0.010	<0.010	**0.03**	---	<0.01	**0.064**
IRA-14-5	290 - 300	0.10	< 0.010	< 0.010	< 0.0010	**0.018**	< 0.0010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---
IRA-24	168 - 218	0.10	---	---	---	---	**0.018**	<0.010	**0.010**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	**0.0076**
IRA-25	170 – 240	0.10	---	---	**0.019**	**0.024**	**0.029**	**0.054**	**0.028**	**0.050**	**0.059**	**0.066**	**0.06**	**0.052**	**0.044**	**0.052**	**0.027**	**0.0179**	**0.035**	**0.057**
IRA-26	170 - 240	0.10	---	**0.045**	**0.045**	**0.039**	**0.029**	**0.021**	**0.014**	**0.012**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	**0.09**
IRA-31	159 - 209	0.10	---	---	---	---	---	**0.040**	**0.053**	**0.020**	**0.018**	**0.017**	---	---	---	**0.021**	**0.02**	<0.010	---	---
IRA-32	180 - 230	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	<0.01	**0.013**
IRA-33	269 - 289 309 - 329 339 - 349	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	<0.01	**0.0011**
IRA-34	180 - 229	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01	--
IRA-35	297 - 347	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	<0.01	--
IRA-36	180 - 210 220 - 240	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0111**	**0.036**	**0.026**
IRA-37	275 - 285 295 - 315 335 - 355	0.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	<0.01	**0.0011**
IRA-38	175-225	0.10																	<0.01	**0.024**
IRA-39	185-235	0.10																	**0.028**	**0.067**
IRA-41	350-400	0.10																	<0.01	**0.0026**

Notes:
'---' - no sample collected
AWQS - Aquifer Water Quality Standard
D - Dissolved chromium
H - Hexavalent Chromium
mg/L - milligrams per liter
T - Total chromium
TOC - Top of Casing
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.50 - Indicates analyte not detected above the method detection limit

Table 16
Individual Tables of Selected Metals in the Regional Aquifer
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	ARSENIC														
	IRA-1	IRA-2	IRA-3	IRA-4	IRA-5	IRA-6	IRA-7	IRA-8	IRA-9	IRA-10-230	IRA-11-210	IRA-12-210	IRA-13-210	IRA-14-1	IRA-14-2
Screened Interval (feet BTOC)	130 - 210	150 - 230	150 - 240	130 - 220	130 - 210	138 - 203	138 - 203	140 - 200	145 - 225	145 - 225	150 - 210	140 - 210	150 - 210	160 – 170	190 - 200
AWQS*	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
May-Jun 99	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---	---
July-Sept 99	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---	---
Oct-Dec 99	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---	---
Jan-Mar 00	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	---	---	---	---	---
Apr-May 00	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---
Sep-00	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---
Dec-00	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---
Mar-01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	---	---	---	---	---	---
Jun-01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	**0.063**	<0.050
Sep-01	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050
Dec-01	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040
Mar-02	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Apr-May-02	**0.022**	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Sep-02	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Jan-03	**0.018**	< 0.0050	< 0.0050	---	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.0058**	< 0.0050
May-03	**0.018**	< 0.0050	< 0.0050	**0.014**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Dec-03	**0.017**	**0.0032**	**0.0036**	---	**---**	**0.0028**	**0.0037**	**0.0033**	---	**0.0022**	**0.0034**	**0.0031**	**0.0030**	---	**0.0034**
Mar-04	**0.029**	**0.020**	**0.015**	---	**0.018**	< 0.010	**0.017**	< 0.010	< 0.010	< 0.010	**0.0033**	**0.038**	< 0.010	**0.045**	**0.034**
May-04	**0.015**	**0.0027**	**0.0027**	**0.0090**	**0.0020**	**0.0024**	**0.0029**	**0.0032**	**0.0022**	**0.0018**	**0.0023**	**0.0030**	**0.0023**	---	**0.0033**
Dec-04	**0.014**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010
Apr-05	**0.012**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010
Oct-05	**0.018**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	<0.010
Apr-06	**0.015**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010
Oct-06	**0.014**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010
Apr-07	**0.013**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010
Oct-07	**0.018**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	---	<0.010
Apr-08	**0.017**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	---	<0.010
Nov-08	**0.012**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	---	<0.010
Oct-10	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	---	<0.010	---	<0.010
Dec-11	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---
Apr-May-Jun-14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Well ID	ARSENIC														
	IRA-14-3	IRA-14-4	IRA-14-5	IRA-24	IRA-25	IRA-26	IRA-31	IRA-32	IRA-33	IRA-34	IRA-35	IRA-36	IRA-37	IRA-38	IRA-39	IRA-41
Screened Interval (feet BTOC)	230 – 240	260 - 270	290 - 300	168 - 218	170 – 240	170 - 240	159 - 209	180-230	269-289 309-329 339-349	180-229	297-347	180-210 220-240	275-285 295-315 335-355	175-225	185-235	350-400
AWQS*	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
May-Jun 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sept 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Oct-Dec 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-01	<0.050	**0.15**	**0.27**	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-01	<0.050	<0.050	**0.17**	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-01	<0.040	<0.040	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-02	<0.040	<0.040	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May-02	<0.040	<0.040	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-02	<0.040	<0.040	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-03	< 0.0050	< 0.0050	< 0.0050	---	---	---	---	---	---	---	---	---	---	---	---	---
May-03	< 0.0050	< 0.0050	< 0.0050	---	---	< 0.0050	---	---	---	---	---	---	---	---	---	---
Dec-03	**0.0024**	**0.0021**	**0.0034**	---	**0.0026**	**0.0024**	---	---	---	---	---	---	---	---	---	---
Mar-04	**0.024**	**0.025**	**0.032**	---	< 0.010	< 0.010	---	---	---	---	---	---	---	---	---	---
May-04	**0.0024**	**0.0025**	**0.0026**	**0.0030**	**0.0025**	**0.0023**	---	---	---	---	---	---	---	---	---	---
Dec-04	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---
Apr-05	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---
Oct-05	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---
Apr-06	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---
Oct-06	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---
Apr-07	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---
Oct-07	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---
Apr-08	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---
Nov-08	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---
Oct-10	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---
Dec-11	---	---	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	---	---	---
Apr-May-Jun-14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:

'---' - no sample collected

AWQS - Aquifer Water Quality Standard

BTOC - below top of casing

ID - Identification

mg/L = milligrams per liter

BOLD - Indicates analyte detected above the method detection limit

Shaded Cell - Indicates analyte detected above the associated AWQS

<0.50 - Indicates analyte not detected above the method detection limit

* - Maximum Contaminant Level (MCL) for Arsenic is 0.01 mg/L

Table 16
Individual Tables of Selected Metals in the Regional Aquifer
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	CHROMIUM														
	IRA-1	IRA-2	IRA-3	IRA-4	IRA-5	IRA-6	IRA-7	IRA-8	IRA-9	IRA-10-230	IRA-11-210	IRA-12-210	IRA-13-210	IRA-14-1	IRA-14-2
Screened Interval (feet BTOC)	130 - 210	150 - 230	150 - 240	130 - 220	130 - 210	138 - 203	138 - 203	140 - 200	145 - 225	145 - 225	150 - 210	140 - 210	150 - 210	160 – 170	190 - 200
AWQS	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
May-Jun 99	<0.01	0.91	<0.01	0.01	<0.01	<0.01	<0.01	0.03	0.04	<0.01	---	---	---	---	---
July-Sept 99	<0.01	1.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.05	<0.01	---	---	---	---	---
Oct-Dec 99	<0.01	1.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.028	0.044	<0.01	---	---	---	---	---
Jan-Mar 00	.	0.94	0.017	<0.01	<0.01	<0.01	0.016	0.029	0.054	<0.01					
Apr-May 00	<0.010	1.2	<0.010	---	<0.010	0.058	0.017	0.029	0.059	<0.010	---	---	---	---	---
Sep-00	0.015	1.3	<0.010	---	<0.010	<0.010	0.027	0.038	0.14	<0.010	---	---	---	---	---
Dec-00	<0.010	1.6	0.013	---	<0.010	<0.010	0.015	0.039	0.24	<0.010	---	---	---	---	---
Mar-01	<0.010	1.4	0.015	<0.010	<0.010	0.016	0.015	0.042	0.33	---	---	---	---	---	---
Jun-01	<0.010	1.2	0.012	<0.010	<0.010	0.019	0.018	0.055	0.51	0.15	0.021	<0.010	0.019	1.6	2.4
Sep-01	<0.010	0.71	<0.010	0.010	<0.010	0.01	0.014	0.052	0.73	---	<0.010	<0.010	0.028	0.31	1.8
Dec-01	<0.010	0.44	0.011	---	<0.010	0.01	0.026	0.077	0.72	---	<0.010	<0.010	<0.046	0.51	0.57
Mar-02	<0.010	0.27	0.014	---	<0.010	0.012	0.050	0.074	0.76	0.087	<0.010	<0.010	0.045	0.62	0.95
Apr-May-02	<0.010	0.26	<0.010	---	<0.010	0.012	0.035	0.063	0.88	0.45	0.11	<0.010	0.046	0.10	1.0
Sep-02	<0.010	0.26	0.02	---	<0.010	0.012	0.043	0.054	1.0	0.19	<0.010	<0.010	0.055	0.47	1.1
Jan-03[T]	< 0.010	0.22	0.015	---	< 0.010	0.017	0.13	0.056	0.93	0.20	< 0.010	< 0.010	0.055	0.61	0.80
May-03[T]	< 0.023	0.14	< 0.010	0.021	< 0.010	0.011	0.012	0.068	0.77	< 0.010	0.017	< 0.010	0.047	0.57	0.13
Dec-03[T]	0.061	0.14	0.0068	---	---	0.024	0.063	0.038	---	0.015	0.062	0.0026	0.030	---	0.28
Mar-04[T]	0.075	0.11	0.016	---	< 0.010	0.019	0.041	0.051	0.43	0.041	0.12	0.012	0.027	0.051	0.30
May-04[T]	0.069	0.083	0.0054	0.032	< 0.0010	0.018	0.052	0.050	0.38	0.0069	0.15	0.0075	0.021	---	0.33
Dec-04[T]	<0.010	0.10	<0.010	0.046	<0.010	0.030	0.043	0.047	0.37	0.012	0.31	<0.010	0.039	---	0.26
Apr-05[T]	<0.010	0.087	<0.010	0.083	<0.010	0.024	0.022	0.047	0.30	0.012	0.29	<0.010	0.025	---	0.24
Oct-05[D]	<0.010	0.12	<0.010	<0.010	<0.010	0.026	0.012	0.031	0.27	<0.010	0.29	<0.010	---	---	0.31
Apr-06[D]	<0.010	0.049	<0.010	<0.010	<0.010	0.026	0.015	0.13	0.22	<0.010	0.33	0.012	0.021	---	0.12
Oct-06[D]	<0.010	0.038	<0.010	<0.010	<0.010	0.024	<0.010	---	0.21	<0.010	0.27	0.011	0.023	---	0.092
Apr-07[D]	<0.010	0.031	<0.010	<0.010	<0.010	0.026	0.011	---	0.18	<0.010	0.22	0.011	0.021	---	0.12
Oct-07[D]	<0.010	0.039	<0.010	<0.010	<0.010	0.025	<0.010	0.079	0.16	<0.010	0.21	---	0.019	---	0.16
Apr-08[D]	<0.010	0.027	<0.010	<0.010	<0.010	0.021	0.012	0.15	0.14	<0.010	0.2	---	0.02	---	0.11
Nov-08[D]	<0.010	0.012	<0.010	0.012	<0.010	0.026	0.01	0.23	0.18	<0.010	0.14	---	0.02	---	0.068
Oct-10[D]	<0.010	---	<0.010	<0.010	<0.010	0.028	0.011	0.569	---	<0.010	0.158	---	<0.010	---	0.012
Dec-11[D]	<0.010	0.0262	---	0.0191	0.0151	0.0132	<0.010	0.487	0.0628	<0.010	0.086	0.0117	0.0114	---	---
Apr-Jun-May-	<0.01	0.09	---	0.098	0.089	0.016	0.032	0.22	---	0.022	0.11	0.25	0.091	---	0.49
Mar-15	0.02	0.017	---	0.079	0.097	0.0076	0.04	0.12	0.071	0.019	0.055	0.03	0.02	---	0.01

Table 16
Individual Tables of Selected Metals in the Regional Aquifer
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	CHROMIUM															
	IRA-14-3	IRA-14-4	IRA-14-5	IRA-24	IRA-25	IRA-26	IRA-31	IRA-32	IRA-33	IRA-34	IRA-35	IRA-36	IRA-37	IRA-38	IRA-39	IRA-41
Screened Interval (feet BTOC)	230 – 240	260 - 270	290 - 300	168 - 218	170 – 240	170 - 240	159 - 209	180 - 230	269 - 289 309 - 329 339 - 349	180 - 229	297 - 347	180 - 210 220 - 240	275 - 285 295 - 315 335 - 355	175-225	185-235	350-400
AWQS	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
May-Jun 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sept 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Oct-Dec 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00														---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-01	<0.010	<0.010	**0.059**	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-01	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-01	<0.010	<0.010	**0.017**	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-02	<0.010	<0.010	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May-02	<0.010	**0.017**	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-02	**0.012**	**0.010**	<0.010	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-03[T]	< 0.010	< 0.010	< 0.010	---	---	---	---	---	---	---	---	---	---	---	---	---
May-03[T]	< 0.010	< 0.010	< 0.010	---	---	**0.045**	---	---	---	---	---	---	---	---	---	---
Dec-03[T]	< 0.0010	**0.0027**	< 0.0010	---	**0.019**	**0.045**	---	---	---	---	---	---	---	---	---	---
Mar-04[T]	**0.016**	**0.015**	**0.018**	---	**0.024**	**0.039**	---	---	---	---	---	---	---	---	---	---
May-04[T]	**0.0078**	**0.001**	< 0.0010	**0.018**	**0.029**	**0.029**	---	---	---	---	---	---	---	---	---	---
Dec-04[T]	<0.010	<0.010	<0.010	<0.010	**0.054**	**0.021**	**0.040**	---	---	---	---	---	---	---	---	---
Apr-05[T]	**0.012**	<0.010	<0.010	**0.010**	**0.028**	**0.014**	**0.053**	---	---	---	---	---	---	---	---	---
Oct-05[D]	**0.020**	<0.010	<0.010	<0.010	**0.050**	**0.012**	**0.020**	---	---	---	---	---	---	---	---	---
Apr-06[D]	**0.012**	<0.010	<0.010	<0.010	**0.059**	<0.010	**0.018**	---	---	---	---	---	---	---	---	---
Oct-06[D]	**0.012**	<0.010	<0.010	<0.010	**0.066**	<0.010	**0.017**	---	---	---	---	---	---	---	---	---
Apr-07[D]	**0.011**	**0.021**	<0.010	<0.010	**0.06**	<0.010	---	---	---	---	---	---	---	---	---	---
Oct-07[D]	<0.010	<0.010	<0.010	<0.010	**0.052**	<0.010	---	---	---	---	---	---	---	---	---	---
Apr-08[D]	<0.010	<0.010	<0.010	<0.010	**0.044**	<0.010	---	---	---	---	---	---	---	---	---	---
Nov-08[D]	<0.010	<0.010	<0.010	<0.010	**0.052**	<0.010	**0.021**	---	---	---	---	---	---	---	---	---
Oct-10[D]	**0.057**	**0.03**	<0.010	<0.010	**0.027**	<0.010	**0.02**	---	---	---	---	---	---	---	---	---
Dec-11[D]	---	---	---	<0.010	**0.0179**	<0.010	<0.010	<0.010	<0.010	---	<0.010	**0.0111**	<0.010	---	---	---
Apr-Jun-May-	<0.01	<0.01	---	<0.01	**0.035**	---	---	<0.01	<0.01	<0.01	<0.01	**0.036**	<0.01	<0.01	**0.028**	<0.01
Mar-15	**0.0015**	**0.064**	---	**0.0076**	**0.057**	**0.09**	---	**0.013**	**0.0011**	---	---	**0.026**	**0.0011**	**0.024**	**0.067**	**0.0026**

Notes:
'---' = no sample collected
AWQS = Aquifer Water Quality Standard
BTOC = Top of Casing
ID = Identification
mg/L = milligrams per liter
BOLD = Indicates analyte detected above the method detection limit
Shaded Cell = Indicates analyte detected above the associated AWQS
<0.50 = Indicates analyte not detected above the method detection limit
D = Dissolved chromium; T = Total chromium; H = Hexavalent Chromium

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	TCE														
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 2000	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02	Jan-03
IRA-10-100	81.5 - 101.5	5	<0.5	<0.4	---	---	---	---	---	---	---	---	<0.50	<0.50	<0.50	<0.50	<0.50
IRA-11-70	58 - 68	5	---	---	---	---	---	---	---	---	---	---	<2.5	---	---	<0.50	<0.50
IRA-12-70	60 - 70	5	---	---	---	---	---	---	---	---	**36**	---	---	**36**	---	---	---
IRA-15	91 - 101	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	5	---	---	---	---	---	---	---	---	**660**	**560**	**650**	**670**	**420**	**770**	**670**
IRA-17	65 - 75	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-18	65.5 - 75.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-19	62 - 72	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-20	75 - 85	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-21	63.5 - 73.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-22	61 - 71	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-23	69.5 - 79.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-28	56 - 66	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-30	59 - 69	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-40	70-90	5															
SJ-MW-1	61 - 71	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-3	84 - 94	5	---	---	---	---		---	---	---	---	---	---	---	---	---	---

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	TCE																
			May-03	Dec-03	Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-Jun-14	Mar-15
IRA-10-100	81.5 - 101.5	5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<1.0	---
IRA-11-70	58 - 68	5	---	< 0.50	< 0.50	< 0.50	---	---	---	< 0.50	---	---	---	---	---	< 0.50	---	---	---
IRA-12-70	60 - 70	5	---	**22**	**25**	**24**	**24**	**20**	**23**	**26**	**26**	**18.4**	**17.1**	**20.6**	**20**	**17.9**	**17.2**	**13**	**8.6**
IRA-15	91 - 101	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	5	**810**	**650**	**800**	**670**	**670**	**550**	**470**	**540**	**220**	**455**	**317**	**691**	**170**	**362**	**446**	**450**	**500**
IRA-17	65 - 75	5	**1,000**	**750**	**870**	**240**	**350**	**240**	**310**	**630**	**1,000**	**773**	**765**	**1,330**	**540**	**453**	**547**	**480**	**500**
IRA-18	65.5 - 75.5	5	---	---	---	---	---	---	---	---	---	---	---	---	**1,300**	---	**569**	**440**	---
IRA-19	62 - 72	5	**5,100**	**4,100**	**5,000**	**5,200**	**5,200**	**3,500**	**1,800**	**2,900**	**3,100**	**640**	**1,360**	**1,470**	**1,900**	**1,860**	**2,110**	---	---
IRA-20	75 - 85	5	---	---	---	---	**130**	**140**	**63**	**130**	---	---	---	**207**	---	**55.8**	---	**53**	---
IRA-21	63.5 - 73.5	5	**62**	**110**	**79**	**100**	**140**	**100**	**59**	**110**	**77**	**110**	**130**	**92.8**	**66**	**93.2**	**54.4**	**73**	**77**
IRA-22	61 - 71	5	**82**	**70**	**63**	**94**	**100**	**69**	**49**	**36**	**70**	**61**	**81**	**43.5**	**61**	**62.8**	**48.2**	**74**	**54**
IRA-23	69.5 - 79.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	5	---	---	---	---	**100**	**140**	**120**	**100**	**110**	**99.9**	**91.1**	**100**	**76**	**99**	**92.1**	**54**	---
IRA-28	56 - 66	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	5	---	---	---	---	**300**	**280**	**150**	**240**	**250**	**261**	**210**	**135**	**150**	**81.8**	**132**	**120**	---
IRA-30	59 - 69	5	---	---	---	---	**230**	**270**	**110**	**230**	**140**	**260**	**220**	**168**	**140**	**114**	**133**	**130**	**71**
IRA-40	70-90	5																**3.8**	**5.4**
SJ-MW-1	61 - 71	5	---	---	---	**440**	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	5	---	---	---	**200**	---	**180**	---	---	**120**	---	---	---	**89**	**118**	**123**	**97**	**89**
SJ-MW-3	84 - 94	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.6**	---

Notes:
µg/L - micrograms per liter
'---' - no sample collected
AWQS - Aquifer Water Quality Standard
TOC - top of casing
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.5 - Indicates analyte not detected above the laboratory reporting limit

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	PCE																	
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 2000	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May 02	Sep-02	Jan-03	May-03	Dec-03	Mar-04
IRA-10-100	81.5 - 101.5	5	<0.5	<0.4	---	---	---	---	---	---	---	---	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5
IRA-11-70	58 - 68	5	---	---	---	---	---	---	---	---	---	---	<2.5	---	---	<0.50	<0.5	---	<0.5	<0.5
IRA-12-70	60 - 70	5	---	---	---	---	---	---	---	---	<0.40	---	---	<0.50	---	---	---	---	< 0.5	<0.5
IRA-15	91 - 101	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	5	---	---	---	---	---	---	---	---	**1.1**	<0.40	**1.2**	**1.1**	**1.3**	**0.96**	**1.0**	**1.2**	<0.5	**1.2**
IRA-17	65 - 75	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<0.5	<0.5
IRA-18	65.5 - 75.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-19	62 - 72	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.4**	**2.0**	**2.0**
IRA-20	75 - 85	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-21	63.5 - 73.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5	<0.5
IRA-22	61 - 71	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.5	< 0.5	<0.5
IRA-23	69.5 - 79.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-28	56 - 66	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-30	59 - 69	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-40	70-90	5																		
SJ-MW-1	61 - 71	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-3	84 - 94	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	PCE													
			May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-Jun-14	Mar-15
IRA-10-100	81.5 - 101.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
IRA-11-70	58 - 68	5	<0.5	---	---	---	<0.5	---	---	---	---	---	<0.5	---	---	---
IRA-12-70	60 - 70	5	<0.5	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-15	91 - 101	5	---	---	---	---	---	---	**---**	---	---	---	---	---	---	---
IRA-16	66 - 76	5	**1.4**	**1.2**	**1.3**	<0.5	**1.1**	<0.5	**0.9**	<0.5	**1.2**	<0.5	**0.66**	**0.92**	<1.0	**0.73**
IRA-17	65 - 75	5	<0.5	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-18	65.5 - 75.5	5	---	---	---	---	---	---	**---**	---	---	<0.5	---	<0.5	<1.0	---
IRA-19	62 - 72	5	**2.2**	<5.0	**1.4**	**1.4**	**1.5**	**1.5**	<0.5	**0.7**	**0.9**	**0.81**	**1.0**	**0.92**	---	---
IRA-20	75 - 85	5	---	<0.5	<0.5	<0.5	<0.5	---	---	---	<0.5	---	<0.5	---	<1.0	---
IRA-21	63.5 - 73.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-22	61 - 71	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-23	69.5 - 79.5	5	---	---	---	---	---	---	**---**	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	5	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.7**	<0.5	<0.5	<0.5	<1.0	---
IRA-28	56 - 66	5	---	---	---	---	---	---	**---**	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	5	---	**0.7**	**0.8**	<0.5	**0.6**	**0.6**	**0.6**	<0.5	<0.5	<0.5	<1.0	<0.5	<1.0	---
IRA-30	59 - 69	5	---	<0.5	**0.7**	<0.5	<0.5	<0.5	**0.6**	<0.5	0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-40	70-90	5													<1.0	0.48
SJ-MW-1	61 - 71	5	<0.5	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	5	<0.5	---	<0.5	---	---	<0.5	---	---	---	<0.5	<2.5	<5.0	<1.0	<0.5
SJ-MW-3	84 - 94	5	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	---

Notes:
µg/L - micrograms per liter
'---' - no sample collected
AWQS - Aquifer Water Quality Standard
TOC - top of casing
BOLD - Indicates analyte detected above the method detection limit
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Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	1,1-DCE																
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 2000	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02	Jan-03	May-03	Dec-03
IRA-10-100	81.5 - 101.5	7	<0.5	<0.4	---	---	---	---	---	---	---	---	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	< 0.5
IRA-11-70	58 - 68	7	---	---	---	---	---	---	---	---	---	---	<2.5	---	---	<0.50	< 0.5	---	< 0.5
IRA-12-70	60 - 70	7	---	---	---	---	---	---	---	---	**0.73**	---	---	**2.1**	---	---	---	---	< 0.5
IRA-15	91 - 101	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	7	---	---	---	---	---	---	---	---	**3.6**	<0.40	**4.4**	**3.8**	**4.7**	**2.5**	**3.0**	**2.2**	<0.5
IRA-17	65 - 75	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.5	<0.5
IRA-18	65.5 - 75.5	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---
IRA-19	62 - 72	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.58**	< 0.5
IRA-20	75 - 85	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	---
IRA-21	63.5 - 73.5	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.84**	**1.0**
IRA-22	61 - 71	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**12**	**9.2**
IRA-23	69.5 - 79.5	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-28	56 - 66	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-30	59 - 69	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-40	70-90	7																	
SJ-MW-1	61 - 71	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-3	84 - 94	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	1,1-DCE														
			Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-Jun-14	Mar-15
IRA-10-100	81.5 - 101.5	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
IRA-11-70	58 - 68	7	<0.5	<0.5	---	---	---	<0.5	---	---	---	---	---	<0.5	---	---	---
IRA-12-70	60 - 70	7	**0.51**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	**0.61**	<0.5	<1.0	**0.42**
IRA-15	91 - 101	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	7	**2.9**	**3.9**	**3.5**	**3.6**	<0.5	**3.0**	<0.5	**1.6**	**0.6**	**2.1**	<0.5	**1.67**	**3.25**	**2.7**	**2.3**
IRA-17	65 - 75	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-18	65.5 - 75.5	7	---	---	---	---	---	---	---	---	---	---	<0.5	---	<0.5	<1.0	---
IRA-19	62 - 72	7	**0.57**	**0.53**	<5.0	**0.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	---
IRA-20	75 - 85	7	---	---	<0.5	<0.5	<0.5	<0.5	---	---	---	<0.5	---	<0.5	---	<1.0	---
IRA-21	63.5 - 73.5	7	**1.2**	**1.6**	**2.6**	**1.3**	**0.6**	**1.5**	**0.9**	**1.6**	**1.5**	**1.3**	**0.84**	**1.04**	**0.55**	<1.0	**0.6**
IRA-22	61 - 71	7	**8.0**	**12**	**12**	**7.8**	**5.6**	**3.0**	**6.0**	**5.6**	**8.0**	**5.2**	**6.8**	**6.6**	**3.56**	**6.0**	**4.5**
IRA-23	69.5 - 79.5	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	7	---	---	**14**	**20**	**18**	**14**	**13**	**13.5**	**12.1**	**14.2**	**12**	**13.3**	**10.6**	**4.0**	---
IRA-28	56 - 66	7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	7	---	---	**15**	**16**	**12**	**12**	**13**	**12**	**12.6**	**8.2**	**11**	**7.16**	**10.3**	**5.7**	---
IRA-30	59 - 69	7	---	---	**30**	**35**	**7.0**	**22**	**13**	**39.5**	**35.9**	**20.9**	**19**	**12**	**15.8**	**10**	**7.1**
IRA-40	70-90	7														<1.0	<0.5
SJ-MW-1	61 - 71	7	---	<0.5	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	7	---	<0.5	---	<0.5	---	---	<0.5	---	---	---	<0.5	<2.5	<0.5	<1.0	<0.5
SJ-MW-3	84 - 94	7	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	---

Notes:
'---' - no sample collected
µg/L - micrograms per liter
AWQS - Aquifer Water Quality Standard
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Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	cis 1,2-DCE														
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-May 2000	Sep-00	Dec-00	Mar-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02	Jan-03
IRA-10-100	81.5 - 101.5	70	---	---	---	---	---	---	---	---	---	---	<0.50	<0.50	<0.50	<0.50	< 0.5
IRA-11-70	58 - 68	70	---	---	---	---	---	---	---	---	---	---	<2.5	---	---	<0.50	< 0.5
IRA-12-70	60 - 70	70	---	---	---	---	---	---	---	---	<0.40	---	---	<0.50	---	---	---
IRA-15	91 - 101	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	70	---	---	---	---	---	---	---	---	**7.4**	**5.7**	**8.3**	**9.0**	**7.2**	**9.3**	**8.6**
IRA-17	65 - 75	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-18	65.5 - 75.5	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-19	62 - 72	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-20	75 - 85	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-21	63.5 - 73.5	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-22	61 - 71	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-23	69.5 - 79.5	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-28	56 - 66	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-30	59 - 69	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-40	70-90	70															
SJ-MW-1	61 - 71	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-3	84 - 94	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	cis 1,2-DCE																
			May-03	Dec-03	Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-Jun-14	Mar-15
IRA-10-100	81.5 - 101.5	70	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	---
IRA-11-70	58 - 68	70	---	< 0.5	<0.5	<0.5	---	---	---	<0.5	---	---	---	---	---	<0.5	---	---	---
IRA-12-70	60 - 70	70	---	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---	<0.5	<1.0	<0.5
IRA-15	91 - 101	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	70	**13**	**16**	**15**	**11**	**12**	**8.8**	**11**	**11**	**2.9**	**9.2**	**4.8**	<0.5	**3.6**	**6.68**	**7.42**	**7.3**	**7.6**
IRA-17	65 - 75	70	**1.1**	<0.5	**1.2**	<0.5	<0.5	<0.5	<0.5	**0.7**	**0.7**	**1.2**	**0.9**	**1.2**	**1.1**	**0.65**	**1.06**	<1.0	<0.5
IRA-18	65.5 - 75.5	70	---	---	---	---	---	---	---	---	---	---	---	---	**0.72**	---	**0.76**	<1.0	---
IRA-19	62 - 72	70	**220**	**170**	**210**	**210**	**240**	**180**	**160**	**210**	**140**	**23.2**	**46**	**65**	**53**	**98.9**	**109**	---	---
IRA-20	75 - 85	70	--	--	---	---	**3.9**	**3.6**	**2.2**	**3.7**	---	---	---	**6.1**	---	**1.69**	---	<1.0	---
IRA-21	63.5 - 73.5	70	**1.7**	**1.6**	**1.8**	**2.2**	**1.7**	**1.4**	**1.2**	**1.7**	**1.2**	**1.4**	**1.3**	**1.0**	**0.93**	**1.07**	**1.08**	<1.0	**1.3**
IRA-22	61 - 71	70	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-23	69.5 - 79.5	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	70	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
IRA-28	56 - 66	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	70	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**2.7**	**1.0**	**19.0**	**96.8**	**12.7**	**7.4**	---
IRA-30	59 - 69	70	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
IRA-40	70-90	70																<1.0	<0.5
SJ-MW-1	61 - 71	70	---	---	---	**15**	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	70	---	---	---	**3.7**	---	**3.2**	---	---	**2.4**	---	---	---	**2.5**	**3.0**	<0.5	**3.0**	**3.8**
SJ-MW-3	84 - 94	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	---

Notes:

'---' - no sample collected

µg/L - micrograms per liter

AWQS - Aquifer Water Quality Standard

TOC - top of casing

BOLD - Indicates analyte detected above the method detection limit

Shaded Cell - Indicates analyte detected above the associated AWQS

<0.5 - Indicates analyte not detected above the method detec

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	TCE																			
	IRA -10-100	IRA-11-70	IRA-12-70	IRA-15	IRA-16	IRA-17	IRA-18	IRA-19	IRA-20	IRA-21	IRA-22	IRA-23	IRA-27	IRA-28	IRA-29	IRA-30	IRA-40	SJ-MW-1	SJ-MW-2	SJ-MW-3
Screened Interval (feet BTOC)	81.5 - 101.5	58 - 68	60 - 70	91 - 101	66 - 76	65 - 75	65.5 - 75.5	62 - 72	75 - 85	63.5 - 73.5	61 - 71	69.5 - 79.5	55.5 - 65.5	56 - 66	56.5 - 66.5	59 - 69	70-90	61 - 71	64 - 74	84 - 94
AWQS	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
May-June 99	<0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
July-Sept 99	<0.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Oct-Dec 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jun-01	---	---	**36**	---	**660**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-01	---	---	---	---	**560**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-01	<0.50	<2.5	---	---	**650**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-02	<0.50	---	**36**	---	**670**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May-02	<0.50	---	---	---	**420**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-02	<0.50	<0.50	---	---	**770**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-03	<0.50	<0.50	---	---	**670**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
May-03	< 0.50	---	---	---	**810**	**1,000**	---	**5,100**	---	**62**	**82**	---	---	---	---	---		---	---	---
Dec-03	< 0.50	< 0.50	**22**	---	**650**	**750**	---	**4,100**	---	**110**	**70**	---	---	---	---	---		---	---	---
Mar-04	< 0.50	< 0.50	**25**	---	**800**	**870**	---	**5,000**	---	**79**	**63**	---	---	---	---	---		---	---	---
May-04	< 0.50	< 0.50	**24**	---	**670**	**240**	---	**5,200**	---	**100**	**94**	---	---	---	---	---		**440**	**200**	---
Dec-04	< 0.50	---	**24**	---	**670**	**350**	---	**5,200**	**130**	**140**	**100**	---	**100**	---	**300**	**230**		---	---	---
Apr-05	< 0.50	---	**20**	---	**550**	**240**	---	**3,500**	**140**	**100**	**69**	---	**140**	---	**280**	**270**		---	**180**	---
Oct-05	< 0.50	---	**23**	---	**470**	**310**	---	**1,800**	**63**	**59**	**49**	---	**120**	---	**150**	**110**		---	---	---
Apr-06	< 0.50	< 0.50	**26**	---	**540**	**630**	---	**2,900**	**130**	**110**	**36**	---	**100**	---	**240**	**230**		---	---	---
Oct-06	< 0.50	---	**26**	---	**220**	**1,000**	---	**3,100**	---	**77**	**70**	---	**110**	---	**250**	**140**		---	**120**	---
Apr-07	< 0.50	---	**18.4**	---	**455**	**773**	---	**640**	---	**110**	**61**	---	**99.9**	---	**261**	**260**		---	---	---
Oct-07	< 0.50	---	**17.1**	---	**317**	**765**	---	**1,360**	---	**130**	**81**	---	**91.1**	---	**210**	**220**		---	---	---
Apr-08	< 0.50	---	**20.6**	---	**691**	**1,330**	---	**1,470**	**207**	**92.8**	**43.5**	---	**100**	---	**135**	**168**		---	---	---
Nov-08	< 0.50	---	**20**	---	**170**	**540**	**1,300**	**1,900**	---	**66**	**61**	---	**76**	---	**150**	**140**		---	**89**	---
Oct-10	< 0.50	< 0.50	**17.9**	---	**362**	**453**	---	**1,860**	**55.8**	**93.2**	**62.8**	---	**99**	---	**81.8**	**114**		---	**118**	---
Dec-11	< 0.50	---	**17.2**	---	**446**	**547**	**569**	**2,110**	---	**54.4**	**48.2**	---	**92.1**	---	**132**	**133**		---	**123**	---
Apr-May-Jun-14	<1.0	---	**13**	---	**450**	**480**	**440**	---	**53**	**73**	**74**	---	**54**	---	**120**	**130**	**3.8**	---	**97**	**2.6**
Mar-15	---	---	**8.6**	---	**500**	**500**	---	---	---	**77**	**54**	---	---	---	---	**71**	**5.4**	---	**89**	---

Notes:

'---' - no sample collected
µg/L - micrograms per liter
AWQS - Aquifer Water Quality Standard
BTOC - top of casing
ID - Identification
TCE - Trichloroethylene
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.5 - Indicates analyte not detected above the laboratory reporting limit

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	PCE																			
	IRA-10-100	IRA-11-70	IRA-12-70	IRA-15	IRA-16	IRA-17	IRA-18	IRA-19	IRA-20	IRA-21	IRA-22	IRA-23	IRA-27	IRA-28	IRA-29	IRA-30	IRA-40	SJ-MW-1	SJ-MW-2	SJ-MW-3
Screened Interval (feet BTOC)	81.5 - 101.5	58 - 68	60 - 70	91 - 101	66 - 76	65 - 75	65.5 - 75.5	62 - 72	75 - 85	63.5 - 73.5	61 - 71	69.5 - 79.5	55.5 - 65.5	56 - 66	56.5 - 66.5	59 - 69	70-90	61 - 71	64 - 74	84 - 94
AWQS	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
May-June 99	<0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
July-Sept 99	<0.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jun-01	---	---	<0.40	---	**1.1**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-01	---	---	---	---	<0.40	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-01	<0.50	<2.5	---	---	**1.2**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-02	<0.50	---	<0.50	---	**1.1**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 02	<0.50	---	---	---	**1.3**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-02	<0.50	<0.50	---	---	**0.96**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-03	<0.5	<0.5	---	---	**1.0**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
May-03	<0.5	---	---	---	**1.2**	<0.5	---	**2.4**	---	< 0.5	< 0.5	---	---	---	---	---		---	---	---
Dec-03	<0.5	<0.5	< 0.5	---	<0.5	<0.5	---	**2.0**	---	< 0.5	< 0.5	---	---	---	---	---		---	---	---
Mar-04	<0.5	<0.5	<0.5	---	**1.2**	<0.5	---	**2.0**	---	<0.5	<0.5	---	---	---	---	---		---	---	---
May-04	<0.5	<0.5	<0.5	---	**1.4**	<0.5	---	**2.2**	---	<0.5	<0.5	---	---	---	---	---		<0.5	<0.5	---
Dec-04	<0.5	---	<0.5	---	**1.2**	<0.5	---	<5.0	<0.5	<0.5	<0.5	---	<0.5	---	**0.7**	<0.5		---	---	---
Apr-05	<0.5	---	<0.5	---	**1.3**	<0.5	---	**1.4**	<0.5	<0.5	<0.5	---	<0.5	---	**0.8**	**0.7**		---	<0.5	---
Oct-05	<0.5	---	<0.5	---	<0.5	<0.5	---	**1.4**	<0.5	<0.5	<0.5	---	<0.5	---	<0.5	<0.5		---	---	---
Apr-06	<0.5	<0.5	<0.50	---	**1.1**	<0.50	---	**1.5**	<0.5	<0.5	<0.5	---	<0.5	---	**0.6**	<0.5		---	---	---
Oct-06	<0.5	---	<0.5	---	<0.5	<0.5	---	**1.5**	---	<0.5	<0.5	---	<0.5	---	**0.6**	<0.5		---	<0.5	---
Apr-07	<0.5	---	<0.5	---	**0.9**	<0.5	---	<0.5	---	<0.5	<0.5	---	<0.5	---	**0.6**	**0.6**		---	---	---
Oct-07	<0.5	---	<0.5	---	<0.5	<0.5	---	**0.7**	---	<0.5	<0.5	---	<0.5	---	<0.5	<0.5		---	---	---
Apr-08	<0.5	---	<0.5	---	**1.2**	<0.5	---	**0.9**	<0.5	<0.5	<0.5	---	**0.7**	---	<0.5	0.5		---	---	---
Nov-08	<0.5	---	<0.5	---	<0.5	<0.5	<0.5	**0.81**	---	<0.5	<0.5	---	<0.5	---	<0.5	<0.5		---	<0.5	---
Oct-10	<0.5	<0.5	<0.5	---	**0.66**	<0.5	---	**1.0**	<0.5	<0.5	<0.5	---	<0.5	---	<1.0	<0.5		---	<2.5	---
Dec-11	<0.5	---	<0.5	---	**0.92**	<0.5	<0.5	**0.92**	---	<0.5	<0.5	---	<0.5	---	<0.5	<0.5		---	<5.0	---
Apr-May-Jun-14	<1.0	---	<1.0	---	<1.0	<1.0	<1.0	---	<1.0	<1.0	<1.0	---	<1.0	---	<1.0	<1.0	<1.0	---	<1.0	<1.0
Mar-15	---	---	<0.5	---	**0.73**	<0.5	---	---	---	<0.5	<0.5	---	---	---	---	<0.5	**0.48**	---	<0.5	---

Notes:

'---' = no sample collected
µg/L = micrograms per liter
AWQS = Aquifer Water Quality Standard
BTOC = Top of Casing
ID = Identification
PCE = Tetrachloroethylene
BOLD = Indicates analyte detected above the method detection limit
Shaded Cell = Indicates analyte detected above the associated AWQS
<0.5 = Indicates analyte not detected above the method detection limit

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	1,1-DCE																			
	IRA-10-100	IRA-11-70	IRA-12-70	IRA-15	IRA-16	IRA-17	IRA-18	IRA-19	IRA-20	IRA-21	IRA-22	IRA-23	IRA-27	IRA-28	IRA-29	IRA-30	IRA-40	SJ-MW-1	SJ-MW-2	SJ-MW-3
Screened Interval (feet BTOC)	81.5 - 101.5	58 - 68	60 - 70	91 - 101	66 - 76	65 - 75	65.5 - 75.5	62 - 72	75 - 85	63.5 - 73.5	61 - 71	69.5 - 79.5	55.5 - 65.5	56 - 66	56.5 - 66.5	59 - 69	70-90	61 - 71	64 - 74	84 - 94
AWQS	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
May-June 99	<0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
July-Sept 99	<0.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jun-01	---	---	**0.73**	---	**3.6**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-01	---	---	---	---	<0.40	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-01	<0.50	<2.5	---	---	**4.4**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-02	<0.50	---	**2.1**	---	**3.8**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May-02	<0.50	---	---	---	**4.7**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-02	<0.50	<0.50	---	---	**2.5**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-03	<0.5	< 0.5	---	---	**3.0**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
May-03	<0.5	---	---	---	**2.2**	<0.5	--	**0.58**	--	**0.84**	**12**	---	---	---	---	---		---	---	---
Dec-03	< 0.5	< 0.5	< 0.5	---	<0.5	<0.5	---	< 0.5	---	**1.0**	**9.2**	---	---	---	---	---		---	---	---
Mar-04	<0.5	<0.5	**0.51**	---	**2.9**	<0.5	---	**0.57**	---	**1.2**	**8.0**	---	---	---	---	---		---	---	---
May-04	<0.5	<0.5	<0.5	---	**3.9**	<0.5	---	**0.53**	---	**1.6**	**12**	---	---	---	---	---		<0.5	<0.5	---
Dec-04	<0.5	---	<0.5	---	**3.5**	<0.5	---	<5.0	<0.5	**2.6**	**12**	---	**14**	---	**15**	**30**		---	---	---
Apr-05	<0.5	---	<0.5	---	**3.6**	<0.5	---	**0.5**	<0.5	**1.3**	**7.8**	---	**20**	---	**16**	**35**		---	<0.5	---
Oct-05	<0.5	---	<0.5	---	<0.5	<0.5	---	<0.5	<0.5	**0.6**	**5.6**	---	**18**	---	**12**	**7.0**		---	---	---
Apr-06	<0.5	<0.5	<0.5	---	**3.0**	<0.5	---	<0.5	<0.5	**1.5**	**3.0**	---	**14**	---	**12**	**22**		---	---	---
Oct-06	<0.5	---	<0.5	---	<0.5	<0.5	---	<0.5	---	**0.9**	**6.0**	---	**13**	---	**13**	**13**		---	<0.5	---
Apr-07	<0.5	---	<0.5	---	**1.6**	<0.5	---	<0.5	---	**1.6**	**5.6**	---	**13.5**	---	**12**	**39.5**		---	---	---
Oct-07	<0.5	---	<0.5	---	**0.6**	<0.5	---	<0.5	---	**1.5**	**8.0**	---	**12.1**	---	**12.6**	**35.9**		---	---	---
Apr-08	<0.5	---	<0.5	---	**2.1**	<0.5	---	<0.5	<0.5	**1.3**	**5.2**	---	**14.2**	---	**8.2**	**20.9**		---	---	---
Nov-08	<0.5	---	**0.6**	---	<0.5	<0.5	<0.5	<0.5	---	**0.84**	**6.8**	---	**12**	---	**11**	**19**		---	<0.5	---
Oct-10	<0.5	<0.5	**0.61**	---	**1.67**	<0.5	---	<0.5	<0.5	**1.04**	**6.6**	---	**13.3**	---	**7.16**	**12**		---	<2.5	---
Dec-11	<0.5	---	<0.5	---	**3.25**	<0.5	<0.5	<0.5	---	**0.55**	**3.56**	---	**10.6**	---	**10.3**	**15.8**		---	<0.5	---
Apr-May-Jun-14	<1.0	---	<1.0	---	**2.7**	<1.0	<1.0	---	<1.0	<1.0	**6.0**	---	**4.0**	---	**5.7**	**10**	<1.0	---	<1.0	<1.0
Mar-15	---	---	**0.42**	---	**2.3**	<0.5	---	---	---	**0.6**	**4.5**	---	---	---	---	**7.1**	<0.5	---	<0.5	---

Notes:

'---' - no sample collected
µg/L - micrograms per liter
AWQS - Aquifer Water Quality Standard
BTOC - top of casing
ID - Identification
1,1-DCE - 1,1-dichloroethylene
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.5 - Indicates analyte not detected above the method detection limit

Table 17
Individual Tables of Selected VOCs in the Perched Groundwater
Analytical Results for 1999 - 2015
Miracle Mile WQARF Site, Tucson, Arizona
(in micrograms per liter [µg/L])

Well ID	cis 1,2-DCE																			
	IRA-10-100	IRA-11-70	IRA-12-70	IRA-15	IRA-16	IRA-17	IRA-18	IRA-19	IRA-20	IRA-21	IRA-22	IRA-23	IRA-27	IRA-28	IRA-29	IRA-30	IRA-40	SJ-MW-1	SJ-MW-2	SJ-MW-3
Screened Interval (feet BTOC)	81.5 - 101.5	58 - 68	60 - 70	91 - 101	66 - 76	65 - 75	65.5 - 75.5	62 - 72	75 - 85	63.5 - 73.5	61 - 71	69.5 - 79.5	55.5 - 65.5	56 - 66	56.5 - 66.5	59 - 69	70-90	61 - 71	64 - 74	84 - 94
AWQS	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
May-June 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
July-Sept 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jun-01	---	---	<0.40	---	**7.4**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-01	---	---	---	---	**5.7**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-01	<0.50	<2.5	---	---	**8.3**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-02	<0.50	---	<0.50	---	**9.0**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May-02	<0.50	---	---	---	**7.2**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-02	<0.50	<0.50	---	---	**9.3**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-03	< 0.5	< 0.5	---	---	**8.6**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
May-03	<0.5	---	---	---	**13**	**1.1**	---	**220**	--	**1.7**	< 0.5	---	---	---	---	---		---	---	---
Dec-03	< 0.5	< 0.5	< 0.5	---	**16**	<0.5	---	**170**	--	**1.6**	< 0.5	---	---	---	---	---		---	---	---
Mar-04	<0.5	<0.5	<0.5	---	**15**	**1.2**	---	**210**	---	**1.8**	<0.5	---	---	---	---	---		---	---	---
May-04	<0.5	<0.5	<0.5	---	**11**	<0.5	---	**210**	---	**2.2**	<0.5	---	---	---	---	---		**15**	**3.7**	---
Dec-04	<0.5	---	<0.5	---	**12**	<0.5	---	**240**	**3.9**	**1.7**	<0.5	---	<0.5	---	<0.5	<0.5		---	---	---
Apr-05	<0.5	---	<0.5	---	**8.8**	<0.5	---	**180**	**3.6**	**1.4**	<0.5	---	<0.5	---	<0.5	<0.5		---	**3.2**	---
Oct-05	<0.5	---	<0.5	---	**11**	<0.5	---	**160**	**2.2**	**1.2**	<0.5	---	<0.5	---	<0.5	<0.5		---	---	---
Apr-06	<0.5	<0.5	<0.5	---	**11**	**0.7**	---	**210**	**3.7**	**1.7**	<0.5	---	<0.5	---	<0.5	<0.5		---	---	---
Oct-06	<0.5	---	<0.5	---	**2.9**	**0.7**	---	**140**	---	**1.2**	<0.5	---	<0.5	---	<0.5	<0.5		---	**2.4**	---
Apr-07	<0.5	---	<0.5	---	**9.2**	**1.2**	---	**23.2**	---	**1.4**	<0.5	---	<0.5	---	<0.5	<0.5		---	---	---
Oct-07	<0.5	---	<0.5	---	**4.8**	**0.9**	---	**46**	---	**1.3**	<0.5	---	<0.5	---	**2.7**	<0.5		---	---	---
Apr-08	<0.5	---	<0.5	---	<0.5	**1.2**	---	**65**	**6.1**	**1.0**	<0.5	---	<0.5	---	**1.0**	<0.5		---	---	---
Nov-08	<0.5	---	<0.5	---	**3.6**	**1.1**	**0.72**	**53**	---	**0.93**	<0.5	---	<0.5	---	**19.0**	<0.5		---	**2.5**	---
Oct-10	<0.5	<0.5	---	---	**6.68**	**0.65**	---	**98.9**	**1.69**	**1.07**	<0.5	---	<0.5	---	**96.8**	<0.5		---	**3**	---
Dec-11	<0.5	---	<0.5	---	**7.42**	**1.06**	**0.76**	**109**	---	**1.08**	<0.5	---	<0.5	---	**12.7**	<0.5		---	<0.5	---
Apr-May-Jun-14	<1.0	---	<1.0	---	**7.3**	<1.0	<1.0	---	<1.0	<1.0	<1.0	---	<1.0	---	**7.4**	<1.0	<1.0	---	**3.0**	<1.0
Mar-15	---	---	<0.5	---	**7.6**	<0.5	---	---	---	**1.3**	<0.5	---	---	---	---	<0.5	<0.5	---	**3.8**	---

Notes:
'---' - no sample collected
µg/L - micrograms per liter
AWQS - Aquifer Water Quality Standard
BTOC - below top of casing
cis-1,2-DCE - cis-1,2-dichloroethylene
ID - Identification
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.5 - Indicates analyte not detected above the method detection limit

Table 18
Analytical Results of Selected Metals in Perched Groundwater
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	Screened Interval (feet below TOC)	AWQS*	ARSENIC													
			May-June	July-Sept	Oct-Dec 1999	Jan-Mar 2000	Apr-June 2000	July-Sept	Oct-Dec 2000	Jan-Mar 2001	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May 02	Sep-02
IRA-10-100	81.5-101.5	.05	<0.050	<0.050	---	---	---	---	---	---	---	---	<0.040	<0.040	<0.040	<0.040
IRA-11-70	58 - 68	.05	---	---	---	---	---	---	---	---	---	---	N/A	---	---	<0.040
IRA-12-70	60 – 70	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-15	91 - 101	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	.05	---	---	---	---	---	---	---	---	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040
IRA-17	65 - 75	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-18	65.5 - 75.5	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-19	62 - 72	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-20	75 - 85	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-21	63.5 - 73.5	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-22	61 - 71	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-23	69.5 - 79.5	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-28	56 - 66	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-30	59 - 69	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-40	70-90	.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SJ-MW-1	61 - 71	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-3	84 - 94	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 18
Analytical Results of Selected Metals in Perched Groundwater
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	Screened Interval (feet below TOC)	AWQS*	ARSENIC																	
			Jan-03	May-03	Dec-03	Mar-04	May-04	Dec-04	Apr-05	Oct-05	Apr-06	Oct-06	Apr-07	Oct-07	Apr-08	Nov-08	Oct-10	Dec-11	Apr-May-Jun-14	Mar-15
IRA-10-100	81.5-101.5	.05	<0.0050	<0.0050	**0.0025**	< 0.010	**0.0024**	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-11-70	58 - 68	.05	---	---	---	**0.0028**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-12-70	60 – 70	.05	---	---	---	---	**0.0041**	---	< 0.010	< 0.010	---	< 0.010	<0.010	< 0.010	<0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-15	91 - 101	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	.05	**0.0056**	**0.0053**	**0.0073**	< 0.010	**0.0041**	<0.010	< 0.010	**0.013**	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-17	65 - 75	.05	---	**0.0058**	**0.0059**	< 0.010	**0.0033**	**0.018**	< 0.010	**0.014**	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-18	65.5 - 75.5	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.010	---	---	---	---
IRA-19	62 - 72	.05	---	---	**0.0035**	< 0.010	---	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-20	75 - 85	.05	---	---	---	---	---	<0.010	< 0.010	< 0.010	< 0.010	---	---	---	<0.010	---	---	---	---	---
IRA-21	63.5 - 73.5	.05	---	---	**0.0016**	< 0.010	**0.0028**	<0.010	**0.011**	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-22	61 - 71	.05	---	<0.0050	**0.0043**	< 0.010	**0.0011**	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-23	69.5 - 79.5	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	.05	---	---	---	---	---	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-28	56 - 66	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	.05	---	---	---	---	---	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-30	59 - 69	.05	---	---	---	---	---	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-40	70-90	.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---
SJ-MW-1	61 - 71	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	.05	---	---	---	---	---	---	< 0.010	< 0.010	**0.037**	**0.079**	---	---	---	**0.063**	< 0.010	---	---	---
SJ-MW-3	84 - 94	.05	---	---	---	---	---	---	---	---	< 0.010	< 0.010	---	---	---	---	---	---	---	---

Notes:
'---' - no sample collected
AWQS - Aquifer Water Quality Standard
mg/L - milligrams per liter
TOC - top of casing
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.0050 - Indicates analyte not detected above the method detection limit
* - Maximum Contaminant Level (MCL) for Arsenic is 0.01 mg/L

Table 18
Analytical Results of Selected Metals in Perched Groundwater
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	CHROMIUM																
			May-June 99	July-Sept 99	Oct-Dec 99	Jan-Mar 2000	Apr-June 2000	July-Sept 2000	Oct-Dec 2000	Jun-01	Jun-01	Sep-01	Dec-01	Mar-02	Apr-May-02	Sep-02	Jan-03[T]	May-03[T]	Dec-03[T]
IRA-10-100	81.5-101.5	.10	<0.01	<0.01	---	---	---	---	---	---	---	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**0.0019**
IRA-11-70	58 - 68	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	---	---	---
IRA-12-70	60 – 70	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-15	91 - 101	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	.10	---	---	---	---	---	---	---	---	0.22	0.036	0.029	0.020	0.062	0.086	**0.052**	**0.016**	**0.028**
IRA-17	65 - 75	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.010	**0.025**
IRA-18	65.5 - 75.5	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--
IRA-19	62 - 72	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	< 0.0010
IRA-20	75 - 85	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--
IRA-21	63.5 - 73.5	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	**0.002**
IRA-22	61 - 71	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.022**	**0.067**
IRA-23	69.5 - 79.5	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-28	56 - 66	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-30	59 - 69	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-40	70-90	.10																	
SJ-MW-1	61 - 71	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-3	84 - 94	.10	---	---	---	---	---	---	---	---		---	---	---	---	---	---	---	---

Table 18
Analytical Results of Selected Metals in Perched Groundwater
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	Screened Interval (feet below TOC)	AWQS	CHROMIUM														
			Mar-04[T]	May-04[T]	Dec-04[T]	Apr-05[T]	Oct-05[D]	Apr-06[D]	Oct-06[D]	Apr-07[D]	Oct-07[D]	Apr-08[D]	Nov-08[D]	Oct-10[D]	Dec-11[D]	Apr-May-Jun-14[T]	Mar-15[T]
IRA-10-100	81.5-101.5	.10	< 0.010	< 0.0010	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	<0.010	---
IRA-11-70	58 - 68	.10	< 0.010	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-12-70	60 – 70	.10	---	**0.013**	---	< 0.010	<0.010	---	< 0.010	<0.010	< 0.010	<0.010	< 0.010	<0.010	<0.010	<0.010	**0.015**
IRA-15	91 - 101	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-16	66 - 76	.10	**0.024**	**0.021**	**0.030**	**0.021**	<0.010	**0.012**	< 0.010	<0.010	< 0.010	<0.010	< 0.010	< 0.010	< 0.010	**0.012**	**0.011**
IRA-17	65 - 75	.10	< 0.010	**0.0060**	**0.032**	**0.024**	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	**0.064**	**0.036**
IRA-18	65.5 - 75.5	.10	---	---	---	---	---	---	---	---	---	---	< 0.010	---	---	<0.010	---
IRA-19	62 - 72	.10	**0.017**	---	<0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-20	75 - 85	.10	---	---	**0.011**	**0.030**	< 0.010	< 0.010	---	---	---	<0.010	---	---	---	---	---
IRA-21	63.5 - 73.5	.10	< 0.010	**0.010**	<0.010	**0.057**	< 0.010	**0.013**	< 0.010	<0.010	**0.012**	<0.010	< 0.010	< 0.010	< 0.010	**0.01**	**0.0074**
IRA-22	61 - 71	.10	**0.023**	**0.0029**	**0.033**	**0.021**	< 0.010	**0.013**	< 0.010	**0.011**	**0.018**	<0.010	**0.023**	**0.012**	**0.0201**	**0.03**	**0.021**
IRA-23	69.5 - 79.5	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-27	55.5 - 65.5	.10	---	---	**0.027**	**0.012**	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	**0.016**	<0.010	**0.012**	---
IRA-28	56 - 66	.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IRA-29	56.5 - 66.5	.10	---	---	**0.043**	**0.057**	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	---	---
IRA-30	59 - 69	.10	---	---	<0.010	**0.011**	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	<0.010	**0.0056**
IRA-40	70-90	.10														**0.083**	**0.15**
SJ-MW-1	61 - 71	.10	**9.9[H]**	**8.7[H]**	---	---	---	---	---	---	---	---	---	---	---	---	---
SJ-MW-2	64 - 74	.10	---	**130[H]**	---	**80**	**99[H]**	**91**	**74**	---	---	---	**83**	**83.2**	---	**78**	**76**
SJ-MW-3	84 - 94	.10	---	---	---	---	---	< 0.010	< 0.010	---	---	---	---	---	---	**3.8**	---

Notes:

'---' - no sample collected
AWQS - Aquifer Water Quality Standard
D - Dissolved chromium
H - Hexavalent Chromium
mg/L - milligrams per liter
T - Total Chromium
TOC - top of casing
BOLD - Indicates analyte detected above the method detection limit
Shaded Cell - Indicates analyte detected above the associated AWQS
<0.50 - Indicates analyte not detected above the method detection limit

Table 18
Analytical Results of Selected Metals in Perched Groundwater
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	ARSENIC																			
	IRA-10-100	IRA-11-70	IRA-12-70	IRA-15	IRA-16	IRA-17	IRA-18	IRA-19	IRA-20	IRA-21	IRA-22	IRA-23	IRA-27	IRA-28	IRA-29	IRA-30	IRA-40	SJ-MW-1	SJ-MW-2	SJ-MW-3
Screened Interval (feet BTOC)	**81.5-101.5**	**58 - 68**	**60 – 70**	**91 - 101**	**66 - 76**	**65 - 75**	**65.5 - 75.5**	**62 - 72**	**75 - 85**	**63.5 - 73.5**	**61 - 71**	**69.5 - 79.5**	**55.5 - 65.5**	**56 - 66**	**56.5 - 66.5**	**59 - 69**	**70-90**	**61 - 71**	**64 - 74**	**84 - 94**
AWQS*	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
May-June 99	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sept 99	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Oct-Dec 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-June 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
July-Sept 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Oct-Dec 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-Mar 01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jun-01	---	---	---	---	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-01	---	---	---	---	<0.050	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec-01	<0.040	N/A	---	---	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-02	<0.040	---	---	---	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr-May 02	<0.040	---	---	---	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sep-02	<0.040	<0.040	---	---	<0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Jan-03	<0.0050	---	---	---	**0.0056**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
May-03	<0.0050	---	---	---	**0.0053**	**0.0058**	---	---	---	---	<0.0050	---	---	---	---	---	---	---	---	---
Dec-03	**0.0025**	---	---	---	**0.0073**	**0.0059**	---	**0.0035**	---	**0.0016**	**0.0043**	---	---	---	---	---	---	---	---	---
Mar-04	< 0.010	**0.0028**	---	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	---	---	---	---	---	---	---
May-04	**0.0024**	---	**0.0041**	---	**0.0041**	**0.0033**	---	---	---	**0.0028**	**0.0011**	---	---	---	---	---	---	---	---	---
Dec-04	<0.010	---	---	---	<0.010	**0.018**	---	<0.010	<0.010	<0.010	<0.010	---	<0.010	---	<0.010	<0.010	---	---	---	---
Apr-05	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	< 0.010	**0.011**	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	< 0.010	---
Oct-05	< 0.010	---	< 0.010	---	**0.013**	**0.014**	---	< 0.010	< 0.010	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	< 0.010	---
Apr-06	< 0.010	---	---	---	< 0.010	< 0.010	---	< 0.010	< 0.010	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	**0.037**	< 0.010
Oct-06	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	**0.079**	< 0.010
Apr-07	< 0.010	---	<0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	---	---
Oct-07	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	---	---
Apr-08	< 0.010	---	<0.010	---	< 0.010	< 0.010	---	< 0.010	<0.010	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	---	---
Nov-08	< 0.010	---	< 0.010	---	< 0.010	< 0.010	< 0.010	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	**0.063**	---
Oct-10	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	< 0.010	---
Dec-11	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	---	---	---
Apr-May-Jun-14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mar-15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
'---' = no sample collected
AWQS = Aquifer Water Quality Standard
BTOC = Top of Casing
ID = Identification
mg/L = milligrams per liter
BOLD = Indicates analyte detected above the method detection limit
Shaded Cell = Indicates analyte detected above the associated AWQS
<0.0050 = Indicates analyte not detected above the method detection limit
* = Maximum Contaminant Level (MCL) for Arsenic is 0.01 mg/L

Table 18
Analytical Results of Selected Metals in Perched Groundwater
Miracle Mile WQARF Site, Tucson, Arizona
(in miligrams per liter [mg/L])

Well ID	CHROMIUM																			
	IRA-10-100	IRA-11-70	IRA-12-70	IRA-15	IRA-16	IRA-17	IRA-18	IRA-19	IRA-20	IRA-21	IRA-22	IRA-23	IRA-27	IRA-28	IRA-29	IRA-30	IRA-40	SJ-MW-1	SJ-MW-2	SJ-MW-3
Screened Interval (feet BTOC)	81.5-101.5	58 - 68	60 – 70	91 - 101	66 - 76	65 - 75	65.5 - 75.5	62 - 72	75 - 85	63.5 - 73.5	61 - 71	69.5 - 79.5	55.5 - 65.5	56 - 66	56.5 - 66.5	59 - 69	70-90	61 - 71	64 - 74	84 - 94
AWQS	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
May-June 99	<0.01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
July-Sept 99	<0.01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Oct-Dec 99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-Mar 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-June 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
July-Sept 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Oct-Dec 00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-Mar 01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jun-01	---	---	---	---	0.22	---	---	---	---	---	---	---	---	---	---	---		---	---	
Sep-01	---	---	---	---	0.036	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Dec-01	<0.010	---	---	---	0.029	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Mar-02	<0.010	---	---	---	0.020	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Apr-May-02	<0.010	---	---	---	0.062	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Sep-02	<0.010	<0.010	---	---	0.086	---	---	---	---	---	---	---	---	---	---	---		---	---	---
Jan-03[T]	<0.010	---	---	---	**0.052**	---	---	---	---	---	---	---	---	---	---	---		---	---	---
May-03[T]	<0.010	---	---	---	**0.016**	<0.010	--	--	--	--	**0.022**	---	---	---	---	---		---	---	---
Dec-03[T]	**0.0019**	---	---	---	**0.028**	**0.025**	--	< 0.0010	--	**0.002**	**0.067**	---	---	---	---	---		---	---	---
Mar-04[T]	< 0.010	< 0.010	---	---	**0.024**	< 0.010	---	**0.017**	---	< 0.010	**0.023**	---	---	---	---	---		**9.9[H]**	---	---
May-04[T]	< 0.0010	---	**0.013**	---	**0.021**	**0.0060**	---	---	---	**0.010**	**0.0029**	---	---	---	---	---		**8.7[H]**	**130[H]**	---
Dec-04[T]	<0.010	---	---	---	**0.030**	**0.032**	---	<0.010	**0.011**	<0.010	**0.033**	---	**0.027**	---	**0.043**	<0.010		---	---	---
Apr-05[T]	< 0.010	---	< 0.010	---	**0.021**	**0.024**	---	< 0.010	**0.030**	**0.057**	**0.021**	---	**0.012**	---	**0.057**	**0.011**		---	**80**	---
Oct-05[D]	< 0.010	---	<0.010	---	<0.010	<0.010	---	< 0.010	< 0.010	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010		---	**99[H]**	---
Apr-06[D]	< 0.010	---	---	---	**0.012**	< 0.010	---	< 0.010	< 0.010	**0.013**	**0.013**	---	< 0.010	---	< 0.010	< 0.010		---	**91**	< 0.010
Oct-06[D]	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	< 0.010		---	**74**	< 0.010
Apr-07[D]	< 0.010	---	<0.010	---	<0.010	< 0.010	---	< 0.010	---	<0.010	**0.011**	---	< 0.010	---	< 0.010	< 0.010		---	---	---
Oct-07[D]	< 0.010	---	< 0.010	---	< 0.010	< 0.010	---	< 0.010	---	**0.012**	**0.018**	---	< 0.010	---	< 0.010	< 0.010		---	---	---
Apr-08[D]	< 0.010	---	<0.010	---	<0.010	< 0.010	---	< 0.010	<0.010	<0.010	<0.010	---	< 0.010	---	< 0.010	< 0.010		---	---	---
Nov-08[D]	< 0.010	---	< 0.010	---	< 0.010	< 0.010	< 0.010	< 0.010	---	< 0.010	**0.023**	---	< 0.010	---	< 0.010	< 0.010		---	**83**	---
Oct-10[D]	< 0.010	---	<0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	**0.012**	---	**0.016**	---	< 0.010	< 0.010		---	**83.2**	---
Dec-11[D]	< 0.010	---	<0.010	---	< 0.010	< 0.010	---	< 0.010	---	< 0.010	**0.0201**	---	<0.010	---	< 0.010	< 0.010		---	---	---
Apr-May-Jun-14[T]	<0.010	---	<0.010	---	**0.012**	**0.064**	<0.10	---	---	**0.01**	**0.03**	---	**0.012**	---	---	<0.010	**0.083**	---	**78**	**3.8**
March 2015[T]	---	---	**0.015**	---	**0.011**	**0.036**	---	---	---	**0.0074**	**0.021**	---	---	---	---	**0.0056**	**0.15**	---	**76**	---

Notes:
'---' = no sample collected
AWQS = Aquifer Water Quality Standard
BTOC = Top of Casing
ID = Identification
mg/L = milligrams per liter
BOLD = Indicates analyte detected above the method detection limit
Shaded Cell = Indicates analyte detected above the associated AWQS
<0.50 = Indicates analyte not detected above the method detection limit
D = Dissolved chromium; T = Total Chromium; H = Hexavalent Chromium

APPENDIX D

LABORATORY REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41105-1
TestAmerica Sample Delivery Group: 1420142030.5.2
Client Project/Site: Miracle Mile WQARF

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/31/2015 9:54:24 AM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
V1	CCV recovery was above method acceptance limits. The analyte was not detected in the sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Job ID: 550-41105-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41105-1

Comments
No additional comments.

Receipt
The samples were received on 3/5/2015 2:34 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperatures of the 2 coolers at receipt time were 2.2º C and 5.7º C.

GC/MS VOA
Method(s) 8260B: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4, TBA-d9 in the method blank (MB) was outside acceptance criteria, low. Therefore, the MB will be flagged with an E6.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41105-1	IRA-36-030515	Water	03/05/15 09:43	03/05/15 14:34
550-41105-2	IRA-37-030515	Water	03/05/15 11:00	03/05/15 14:34
550-41105-3	IRA-24-030515	Water	03/05/15 12:18	03/05/15 14:34
550-41105-4	TB	Water	03/05/15 12:19	03/05/15 14:34

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Client Sample ID: IRA-36-030515 — Lab Sample ID: 550-41105-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.25	E4	0.50	0.15	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	3.6		0.50	0.23	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.81		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	13		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	9.2		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.026		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-37-030515 — Lab Sample ID: 550-41105-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.69		0.50	0.23	ug/L	1		8260B	Total/NA
Naphthalene	0.95	E4	2.5	0.51	ug/L	1		8260B	Total/NA
Nitrate as N	2.6		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.0011	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-24-030515 — Lab Sample ID: 550-41105-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	1.5		0.50	0.15	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.8		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	0.78		0.50	0.24	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	0.34	E4	0.50	0.15	ug/L	1		8260B	Total/NA
Nitrate as N	13	M2	0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.0076	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41105-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Client Sample ID: IRA-36-030515

Lab Sample ID: 550-41105-1

Date Collected: 03/05/15 09:43
Matrix: Water
Date Received: 03/05/15 14:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/13/15 11:58	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 11:58	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 11:58	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 11:58	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 11:58	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 11:58	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 11:58	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/13/15 11:58	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 11:58	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 11:58	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 11:58	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 11:58	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 11:58	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 11:58	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 11:58	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 11:58	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 11:58	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 11:58	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 11:58	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 11:58	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 11:58	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 11:58	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 11:58	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 11:58	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 11:58	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 11:58	1
Dichlorodifluoromethane	**0.25**	**E4**	0.50	0.15	ug/L			03/13/15 11:58	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 11:58	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 11:58	1
1,1-Dichloroethene	**3.6**		0.50	0.23	ug/L			03/13/15 11:58	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 11:58	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 11:58	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 11:58	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 11:58	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 11:58	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 11:58	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 11:58	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 11:58	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 11:58	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 11:58	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 11:58	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 11:58	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 11:58	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 11:58	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 11:58	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 11:58	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 11:58	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/13/15 11:58	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 11:58	1

Client Sample ID: IRA-36-030515

Lab Sample ID: 550-41105-1

Date Collected: 03/05/15 09:43
Matrix: Water
Date Received: 03/05/15 14:34

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 11:58	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 11:58	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 11:58	1
Tetrachloroethene	**0.81**		0.50	0.18	ug/L			03/13/15 11:58	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 11:58	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/13/15 11:58	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/13/15 11:58	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 11:58	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 11:58	1
Trichloroethene	**13**		0.50	0.24	ug/L			03/13/15 11:58	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 11:58	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 11:58	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 11:58	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 11:58	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 11:58	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 11:58	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 11:58	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 11:58	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 11:58	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 11:58*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 11:58*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 11:58*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 11:58*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 11:58*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/13/15 11:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*03/13/15 11:58*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/13/15 11:58*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*03/13/15 11:58*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**9.2**		0.10	0.051	mg/L			03/06/15 20:32	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.026**		0.010	0.00050	mg/L		03/06/15 12:01	03/10/15 23:01	1

Client Sample ID: IRA-37-030515

Lab Sample ID: 550-41105-2

Date Collected: 03/05/15 11:00
Matrix: Water
Date Received: 03/05/15 14:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/13/15 13:33	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 13:33	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 13:33	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 13:33	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Client Sample ID: IRA-37-030515
Date Collected: 03/05/15 11:00
Date Received: 03/05/15 14:34

Lab Sample ID: 550-41105-2
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 13:33	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 13:33	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 13:33	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/13/15 13:33	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 13:33	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 13:33	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 13:33	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 13:33	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 13:33	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 13:33	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 13:33	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 13:33	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 13:33	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 13:33	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 13:33	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 13:33	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 13:33	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 13:33	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 13:33	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 13:33	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 13:33	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 13:33	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 13:33	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 13:33	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 13:33	1
1,1-Dichloroethene	**0.69**		0.50	0.23	ug/L			03/13/15 13:33	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 13:33	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 13:33	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 13:33	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 13:33	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 13:33	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 13:33	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 13:33	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 13:33	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 13:33	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 13:33	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 13:33	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 13:33	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 13:33	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 13:33	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 13:33	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 13:33	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 13:33	1
Naphthalene	**0.95**	**E4**	2.5	0.51	ug/L			03/13/15 13:33	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 13:33	1
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 13:33	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 13:33	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 13:33	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/13/15 13:33	1

Client Sample ID: IRA-37-030515

Lab Sample ID: 550-41105-2

Date Collected: 03/05/15 11:00
Matrix: Water
Date Received: 03/05/15 14:34

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 13:33	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/13/15 13:33	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/13/15 13:33	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 13:33	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 13:33	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/13/15 13:33	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 13:33	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 13:33	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 13:33	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 13:33	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 13:33	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 13:33	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 13:33	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 13:33	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 13:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 13:33*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 13:33*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 13:33*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 13:33*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 13:33*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/13/15 13:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/13/15 13:33*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*03/13/15 13:33*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*03/13/15 13:33*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**2.6**		0.10	0.051	mg/L			03/06/15 20:51	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.0011**	**E4**	0.010	0.00050	mg/L		03/06/15 12:01	03/10/15 23:05	1

Client Sample ID: IRA-24-030515

Lab Sample ID: 550-41105-3

Date Collected: 03/05/15 12:18
Matrix: Water
Date Received: 03/05/15 14:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/13/15 14:04	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 14:04	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 14:04	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 14:04	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 14:04	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 14:04	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 14:04	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/13/15 14:04	1

Client Sample ID: IRA-24-030515

Lab Sample ID: 550-41105-3

Date Collected: 03/05/15 12:18

Matrix: Water

Date Received: 03/05/15 14:34

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 14:04	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 14:04	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 14:04	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 14:04	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 14:04	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 14:04	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 14:04	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 14:04	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 14:04	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 14:04	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 14:04	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 14:04	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 14:04	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 14:04	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 14:04	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 14:04	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 14:04	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 14:04	1
Dichlorodifluoromethane	**1.5**		0.50	0.15	ug/L			03/13/15 14:04	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 14:04	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 14:04	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/13/15 14:04	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 14:04	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 14:04	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 14:04	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 14:04	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 14:04	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 14:04	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 14:04	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 14:04	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 14:04	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 14:04	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 14:04	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 14:04	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 14:04	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 14:04	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 14:04	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 14:04	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 14:04	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/13/15 14:04	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 14:04	1
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 14:04	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 14:04	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 14:04	1
Tetrachloroethene	**1.8**		0.50	0.18	ug/L			03/13/15 14:04	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 14:04	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/13/15 14:04	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/13/15 14:04	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 14:04	1

Client Sample ID: IRA-24-030515

Lab Sample ID: 550-41105-3

Date Collected: 03/05/15 12:18
Matrix: Water
Date Received: 03/05/15 14:34

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 14:04	1
Trichloroethene	**0.78**		0.50	0.24	ug/L			03/13/15 14:04	1
Trichlorofluoromethane	**0.34**	**E4**	0.50	0.15	ug/L			03/13/15 14:04	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 14:04	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 14:04	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 14:04	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 14:04	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 14:04	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 14:04	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 14:04	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 14:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 14:04*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 14:04*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 14:04*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 14:04*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 14:04*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/13/15 14:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/13/15 14:04*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/13/15 14:04*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*03/13/15 14:04*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**13**	**M2**	0.10	0.051	mg/L			03/06/15 21:09	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.0076**	**E4**	0.010	0.00050	mg/L		03/06/15 12:01	03/10/15 23:08	1

Client Sample ID: TB

Lab Sample ID: 550-41105-4

Date Collected: 03/05/15 12:19
Matrix: Water
Date Received: 03/05/15 14:34

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/13/15 10:55	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 10:55	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 10:55	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 10:55	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 10:55	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 10:55	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 10:55	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/13/15 10:55	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 10:55	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 10:55	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 10:55	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 10:55	1

Client Sample ID: TB

Lab Sample ID: 550-41105-4

Date Collected: 03/05/15 12:19

Matrix: Water

Date Received: 03/05/15 14:34

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 10:55	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 10:55	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 10:55	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 10:55	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 10:55	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 10:55	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 10:55	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 10:55	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 10:55	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 10:55	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 10:55	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 10:55	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 10:55	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 10:55	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 10:55	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 10:55	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 10:55	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/13/15 10:55	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 10:55	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 10:55	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 10:55	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 10:55	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 10:55	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 10:55	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 10:55	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 10:55	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 10:55	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 10:55	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 10:55	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 10:55	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 10:55	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 10:55	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 10:55	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 10:55	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 10:55	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/13/15 10:55	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 10:55	1
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 10:55	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 10:55	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 10:55	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/13/15 10:55	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 10:55	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/13/15 10:55	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/13/15 10:55	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 10:55	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 10:55	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/13/15 10:55	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 10:55	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 10:55	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Client Sample ID: TB

Lab Sample ID: 550-41105-4

Date Collected: 03/05/15 12:19
Matrix: Water
Date Received: 03/05/15 14:34

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 10:55	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 10:55	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 10:55	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 10:55	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 10:55	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 10:55	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 10:55	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 10:55*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 10:55*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 10:55*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 10:55*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 10:55*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/13/15 10:55*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*92*		*70 - 130*		*03/13/15 10:55*	*1*
Toluene-d8 (Surr)	*86*		*70 - 130*		*03/13/15 10:55*	*1*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*		*03/13/15 10:55*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41105-1	IRA-36-030515	94	89	86
550-41105-1 MS	IRA-36-030515	85	91	87
550-41105-1 MSD	IRA-36-030515	79	81	71
550-41105-2	IRA-37-030515	95	85	83
550-41105-3	IRA-24-030515	95	89	90
550-41105-4	TB	92	86	80
LCS 550-58450/3	Lab Control Sample	83	88	76
LCSD 550-58450/4	Lab Control Sample Dup	80	81	77
MB 550-58450/5	Method Blank	95	89	84

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-58450/5
Matrix: Water
Analysis Batch: 58450

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/13/15 09:10	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 09:10	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 09:10	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 09:10	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 09:10	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 09:10	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 09:10	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/13/15 09:10	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 09:10	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 09:10	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 09:10	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 09:10	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 09:10	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 09:10	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 09:10	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 09:10	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 09:10	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 09:10	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 09:10	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 09:10	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 09:10	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 09:10	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 09:10	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 09:10	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 09:10	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 09:10	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 09:10	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 09:10	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 09:10	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/13/15 09:10	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 09:10	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 09:10	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 09:10	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 09:10	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 09:10	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 09:10	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 09:10	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 09:10	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 09:10	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 09:10	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 09:10	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 09:10	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 09:10	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 09:10	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 09:10	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 09:10	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 09:10	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/13/15 09:10	1

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

Lab Sample ID: MB 550-58450/5
Matrix: Water
Analysis Batch: 58450

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 09:10	1
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 09:10	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 09:10	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 09:10	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/13/15 09:10	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 09:10	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/13/15 09:10	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/13/15 09:10	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 09:10	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 09:10	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/13/15 09:10	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 09:10	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 09:10	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 09:10	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 09:10	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 09:10	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 09:10	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 09:10	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 09:10	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 09:10	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 09:10*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 09:10*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 09:10*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 09:10*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 09:10*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/13/15 09:10*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/13/15 09:10*	*1*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*		*03/13/15 09:10*	*1*

Lab Sample ID: LCS 550-58450/3
Matrix: Water
Analysis Batch: 58450

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	32.7	V1	ug/L		131	38 - 150
Benzene	25.0	24.4		ug/L		98	70 - 130
Bromobenzene	25.0	24.9		ug/L		100	70 - 130
Chlorobromomethane	25.0	23.9		ug/L		95	70 - 130
Dichlorobromomethane	25.0	25.1		ug/L		100	70 - 130
Bromoform	25.0	25.2		ug/L		101	69 - 129
Bromomethane	25.0	22.9		ug/L		92	57 - 138
2-Butanone (MEK)	25.0	32.6	V1	ug/L		131	53 - 150
n-Butylbenzene	25.0	24.7		ug/L		99	70 - 130

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

Lab Sample ID: LCS 550-58450/3
Matrix: Water
Analysis Batch: 58450

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	25.0	24.1		ug/L		96	70 - 130
Carbon disulfide	25.0	23.7		ug/L		95	64 - 145
Carbon tetrachloride	25.0	24.3		ug/L		97	70 - 143
Chlorobenzene	25.0	22.6		ug/L		90	70 - 130
Chloroethane	25.0	21.7		ug/L		87	66 - 131
Chloroform	25.0	23.4		ug/L		94	70 - 130
Chloromethane	25.0	21.1		ug/L		85	56 - 129
2-Chlorotoluene	25.0	24.4		ug/L		97	70 - 130
4-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130
Chlorodibromomethane	25.0	24.2		ug/L		97	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	63 - 146
Ethylene Dibromide	25.0	22.4		ug/L		89	70 - 130
Dibromomethane	25.0	25.6		ug/L		103	70 - 130
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	70 - 130
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,4-Dichlorobenzene	25.0	24.4		ug/L		97	70 - 130
Dichlorodifluoromethane	25.0	20.7		ug/L		83	46 - 144
1,1-Dichloroethane	25.0	23.4		ug/L		94	70 - 130
1,2-Dichloroethane	25.0	23.7		ug/L		95	66 - 139
1,1-Dichloroethene	25.0	23.9		ug/L		96	63 - 131
cis-1,2-Dichloroethene	25.0	23.2		ug/L		93	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	69 - 127
1,2-Dichloropropane	25.0	23.7		ug/L		95	70 - 130
1,3-Dichloropropane	25.0	22.7		ug/L		91	70 - 130
2,2-Dichloropropane	25.0	27.3		ug/L		109	69 - 139
1,1-Dichloropropene	25.0	24.5		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130
Ethylbenzene	25.0	22.1		ug/L		88	70 - 130
Hexachlorobutadiene	25.0	23.6		ug/L		94	76 - 145
2-Hexanone	25.0	29.5		ug/L		118	55 - 150
Iodomethane	25.0	24.2		ug/L		97	70 - 130
Isopropylbenzene	25.0	24.3		ug/L		97	88 - 141
4-Isopropyltoluene	25.0	24.7		ug/L		99	70 - 130
Methylene Chloride	25.0	20.9		ug/L		83	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	25.5		ug/L		102	64 - 142
Methyl tert-butyl ether	25.0	28.0		ug/L		112	70 - 130
Naphthalene	25.0	23.0		ug/L		92	78 - 143
N-Propylbenzene	25.0	24.6		ug/L		99	70 - 130
Styrene	25.0	22.8		ug/L		91	70 - 130
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.4		ug/L		102	70 - 130
Tetrachloroethene	25.0	23.3		ug/L		93	70 - 130
Toluene	25.0	24.6		ug/L		98	70 - 130
1,2,3-Trichlorobenzene	25.0	23.1		ug/L		93	79 - 139
1,2,4-Trichlorobenzene	25.0	22.5		ug/L		90	80 - 137
1,1,1-Trichloroethane	25.0	24.4		ug/L		98	71 - 131
1,1,2-Trichloroethane	25.0	25.7		ug/L		103	70 - 130

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

Lab Sample ID: LCS 550-58450/3
Matrix: Water
Analysis Batch: 58450

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	25.0	23.5		ug/L		94	70 - 130
Trichlorofluoromethane	25.0	24.1		ug/L		96	69 - 150
1,2,3-Trichloropropane	25.0	25.9		ug/L		103	70 - 130
1,2,4-Trimethylbenzene	25.0	24.3		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	25.0	24.6		ug/L		98	70 - 130
Vinyl acetate	25.0	26.7		ug/L		107	67 - 148
Vinyl chloride	25.0	22.8		ug/L		91	65 - 137
Xylenes, Total	50.0	46.4		ug/L		93	70 - 130
Butadiene	25.0	22.5		ug/L		90	12 - 150
Hexane	25.0	28.0		ug/L		112	54 - 132
m-Xylene & p-Xylene	25.0	23.0		ug/L		92	70 - 130
o-Xylene	25.0	23.4		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*83*		*70 - 130*
Toluene-d8 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: LCSD 550-58450/4
Matrix: Water
Analysis Batch: 58450

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	34.9	V1	ug/L		140	38 - 150	7	35
Benzene	25.0	23.9		ug/L		95	70 - 130	2	20
Bromobenzene	25.0	25.2		ug/L		101	70 - 130	1	20
Chlorobromomethane	25.0	24.5		ug/L		98	70 - 130	2	20
Dichlorobromomethane	25.0	24.6		ug/L		98	70 - 130	2	20
Bromoform	25.0	24.5		ug/L		98	69 - 129	3	20
Bromomethane	25.0	23.4		ug/L		94	57 - 138	2	20
2-Butanone (MEK)	25.0	35.4	V1	ug/L		142	53 - 150	8	35
n-Butylbenzene	25.0	24.8		ug/L		99	70 - 130	0	20
sec-Butylbenzene	25.0	24.7		ug/L		99	70 - 130	2	20
Carbon disulfide	25.0	24.3		ug/L		97	64 - 145	3	33
Carbon tetrachloride	25.0	25.1		ug/L		100	70 - 143	3	20
Chlorobenzene	25.0	24.2		ug/L		97	70 - 130	7	20
Chloroethane	25.0	22.8		ug/L		91	66 - 131	5	20
Chloroform	25.0	24.7		ug/L		99	70 - 130	5	20
Chloromethane	25.0	21.1		ug/L		84	56 - 129	0	20
2-Chlorotoluene	25.0	24.0		ug/L		96	70 - 130	2	20
4-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130	3	20
Chlorodibromomethane	25.0	25.8		ug/L		103	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	24.9		ug/L		100	63 - 146	1	22
Ethylene Dibromide	25.0	25.5		ug/L		102	70 - 130	13	20
Dibromomethane	25.0	26.9		ug/L		107	70 - 130	5	20
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	70 - 130	0	20
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130	1	20
1,4-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	5	20

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

Lab Sample ID: LCSD 550-58450/4
Matrix: Water
Analysis Batch: 58450

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	25.0	22.7		ug/L		91	46 - 144	9	23
1,1-Dichloroethane	25.0	24.2		ug/L		97	70 - 130	3	20
1,2-Dichloroethane	25.0	25.1		ug/L		100	66 - 139	6	20
1,1-Dichloroethene	25.0	24.5		ug/L		98	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	4	20
trans-1,2-Dichloroethene	25.0	23.8		ug/L		95	69 - 127	0	20
1,2-Dichloropropane	25.0	24.0		ug/L		96	70 - 130	1	20
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	11	20
2,2-Dichloropropane	25.0	28.2		ug/L		113	69 - 139	3	20
1,1-Dichloropropene	25.0	24.8		ug/L		99	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	26.1		ug/L		104	70 - 130	6	20
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	70 - 130	4	20
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130	11	20
Hexachlorobutadiene	25.0	23.2		ug/L		93	76 - 145	2	20
2-Hexanone	25.0	34.2		ug/L		137	55 - 150	15	35
Iodomethane	25.0	25.1		ug/L		100	70 - 130	4	20
Isopropylbenzene	25.0	24.2		ug/L		97	88 - 141	0	20
4-Isopropyltoluene	25.0	24.2		ug/L		97	70 - 130	2	20
Methylene Chloride	25.0	21.2		ug/L		85	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	29.4		ug/L		118	64 - 142	14	25
Methyl tert-butyl ether	25.0	28.7		ug/L		115	70 - 130	3	20
Naphthalene	25.0	23.5		ug/L		94	78 - 143	2	20
N-Propylbenzene	25.0	24.4		ug/L		98	70 - 130	1	20
Styrene	25.0	25.6		ug/L		102	70 - 130	11	20
1,1,1,2-Tetrachloroethane	25.0	25.6		ug/L		102	70 - 130	9	20
1,1,2,2-Tetrachloroethane	25.0	24.7		ug/L		99	70 - 130	3	20
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130	9	20
Toluene	25.0	23.5		ug/L		94	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	22.0		ug/L		88	79 - 139	5	20
1,2,4-Trichlorobenzene	25.0	21.8		ug/L		87	80 - 137	3	20
1,1,1-Trichloroethane	25.0	24.9		ug/L		99	71 - 131	2	20
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	70 - 130	2	20
Trichloroethene	25.0	24.4		ug/L		98	70 - 130	4	20
Trichlorofluoromethane	25.0	25.4		ug/L		102	69 - 150	5	22
1,2,3-Trichloropropane	25.0	22.2		ug/L		89	70 - 130	15	20
1,2,4-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130	2	20
Vinyl acetate	25.0	28.4		ug/L		113	67 - 148	6	22
Vinyl chloride	25.0	22.5		ug/L		90	65 - 137	1	20
Xylenes, Total	50.0	48.7		ug/L		97	70 - 130	5	20
Butadiene	25.0	23.8		ug/L		95	12 - 150	6	35
Hexane	25.0	27.3		ug/L		109	54 - 132	3	28
m-Xylene & p-Xylene	25.0	23.9		ug/L		96	70 - 130	4	20
o-Xylene	25.0	24.8		ug/L		99	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*80*		*70 - 130*
Toluene-d8 (Surr)	*81*		*70 - 130*

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

Lab Sample ID: LCSD 550-58450/4
Matrix: Water
Analysis Batch: 58450

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*

Lab Sample ID: 550-41105-1 MS
Matrix: Water
Analysis Batch: 58450

Client Sample ID: IRA-36-030515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8 V1	25.0	15.5	V1	ug/L		62	29 - 139
Benzene	ND	E8	25.0	24.2		ug/L		97	68 - 131
Bromobenzene	ND	E8	25.0	26.2		ug/L		105	70 - 130
Chlorobromomethane	ND	E8	25.0	25.6		ug/L		102	64 - 132
Dichlorobromomethane	ND	E8	25.0	25.6		ug/L		102	63 - 138
Bromoform	ND	E8	25.0	25.4		ug/L		102	60 - 128
Bromomethane	ND	E8	25.0	24.6		ug/L		99	47 - 144
2-Butanone (MEK)	ND	E8 V1	25.0	21.7	V1	ug/L		87	31 - 143
n-Butylbenzene	ND	E8	25.0	25.8		ug/L		103	69 - 140
sec-Butylbenzene	ND	E8	25.0	25.4		ug/L		101	72 - 136
Carbon disulfide	ND	E8	25.0	25.5		ug/L		102	45 - 150
Carbon tetrachloride	ND	E8	25.0	25.0		ug/L		100	65 - 147
Chlorobenzene	ND	E8	25.0	24.9		ug/L		100	70 - 130
Chloroethane	ND	E8	25.0	21.8		ug/L		87	57 - 139
Chloroform	ND	E8	25.0	25.0		ug/L		100	63 - 131
Chloromethane	ND	E8	25.0	21.9		ug/L		88	47 - 134
2-Chlorotoluene	ND	E8	25.0	24.7		ug/L		99	71 - 131
4-Chlorotoluene	ND	E8	25.0	25.0		ug/L		100	70 - 130
Chlorodibromomethane	ND	E8	25.0	26.2		ug/L		105	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	23.5		ug/L		94	53 - 145
Ethylene Dibromide	ND	E8	25.0	25.8		ug/L		103	70 - 130
Dibromomethane	ND	E8	25.0	28.0		ug/L		112	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	24.8		ug/L		99	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	25.7		ug/L		103	70 - 130
Dichlorodifluoromethane	0.25	E4	25.0	23.3		ug/L		92	40 - 148
1,1-Dichloroethane	ND	E8	25.0	24.8		ug/L		99	62 - 130
1,2-Dichloroethane	ND	E8	25.0	27.2		ug/L		109	54 - 147
1,1-Dichloroethene	3.6		25.0	29.4		ug/L		103	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	25.0		ug/L		100	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.6		ug/L		102	62 - 131
1,2-Dichloropropane	ND	E8	25.0	24.9		ug/L		100	68 - 126
1,3-Dichloropropane	ND	E8	25.0	25.3		ug/L		101	68 - 129
2,2-Dichloropropane	ND	E8	25.0	29.9		ug/L		120	60 - 146
1,1-Dichloropropene	ND	E8	25.0	25.6		ug/L		102	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	26.8		ug/L		107	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	27.0		ug/L		108	58 - 136
Ethylbenzene	ND	E8	25.0	25.7		ug/L		103	74 - 134
Hexachlorobutadiene	ND	E8	25.0	24.9		ug/L		100	69 - 150
2-Hexanone	ND	E8	25.0	21.1		ug/L		85	40 - 142
Iodomethane	ND	E8	25.0	25.9		ug/L		103	53 - 150

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

Lab Sample ID: 550-41105-1 MS
Matrix: Water
Analysis Batch: 58450

Client Sample ID: IRA-36-030515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	ND	E8	25.0	24.3		ug/L		97	80 - 146
4-Isopropyltoluene	ND	E8	25.0	25.9		ug/L		104	70 - 133
Methylene Chloride	ND	E8	25.0	21.6		ug/L		86	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	24.7		ug/L		99	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	30.0		ug/L		120	67 - 138
Naphthalene	ND	E8	25.0	24.3		ug/L		97	67 - 146
N-Propylbenzene	ND	E8	25.0	25.9		ug/L		104	74 - 140
Styrene	ND	E8	25.0	26.0		ug/L		104	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	24.7		ug/L		99	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	26.0		ug/L		104	63 - 137
Tetrachloroethene	0.81		25.0	26.3		ug/L		102	67 - 131
Toluene	ND	E8	25.0	25.6		ug/L		103	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	22.9		ug/L		92	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	22.5		ug/L		90	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	25.7		ug/L		103	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	27.8		ug/L		111	63 - 132
Trichloroethene	13		25.0	36.5		ug/L		95	66 - 132
Trichlorofluoromethane	ND	E8	25.0	25.9		ug/L		104	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	25.2		ug/L		101	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	24.8		ug/L		99	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	25.3		ug/L		101	66 - 137
Vinyl acetate	ND	E8	25.0	29.2		ug/L		117	47 - 150
Vinyl chloride	ND	E8	25.0	24.0		ug/L		96	55 - 146
Xylenes, Total	ND	E8	50.0	50.5		ug/L		101	68 - 131
Butadiene	ND	E8	25.0	24.8		ug/L		99	10 - 150
Hexane	ND	E8	25.0	28.2		ug/L		113	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	25.1		ug/L		101	58 - 138
o-Xylene	ND	E8	25.0	25.4		ug/L		102	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*85*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 550-41105-1 MSD
Matrix: Water
Analysis Batch: 58450

Client Sample ID: IRA-36-030515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8 V1	25.0	12.5	V1	ug/L		50	29 - 139	22	35
Benzene	ND	E8	25.0	21.6		ug/L		86	68 - 131	11	32
Bromobenzene	ND	E8	25.0	24.0		ug/L		96	70 - 130	9	28
Chlorobromomethane	ND	E8	25.0	22.9		ug/L		92	64 - 132	11	35
Dichlorobromomethane	ND	E8	25.0	23.6		ug/L		94	63 - 138	8	31
Bromoform	ND	E8	25.0	22.6		ug/L		91	60 - 128	12	31
Bromomethane	ND	E8	25.0	21.6		ug/L		87	47 - 144	13	35
2-Butanone (MEK)	ND	E8 V1	25.0	19.1	V1	ug/L		76	31 - 143	13	35
n-Butylbenzene	ND	E8	25.0	23.5		ug/L		94	69 - 140	10	32

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

Lab Sample ID: 550-41105-1 MSD
Matrix: Water
Analysis Batch: 58450

Client Sample ID: IRA-36-030515
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butylbenzene	ND	E8	25.0	22.5		ug/L		90	72 - 136	12	33
Carbon disulfide	ND	E8	25.0	22.9		ug/L		92	45 - 150	11	35
Carbon tetrachloride	ND	E8	25.0	22.7		ug/L		91	65 - 147	10	35
Chlorobenzene	ND	E8	25.0	21.3		ug/L		85	70 - 130	15	30
Chloroethane	ND	E8	25.0	20.8		ug/L		83	57 - 139	5	35
Chloroform	ND	E8	25.0	23.3		ug/L		93	63 - 131	7	33
Chloromethane	ND	E8	25.0	20.5		ug/L		82	47 - 134	7	35
2-Chlorotoluene	ND	E8	25.0	23.5		ug/L		94	71 - 131	5	29
4-Chlorotoluene	ND	E8	25.0	23.0		ug/L		92	70 - 130	9	28
Chlorodibromomethane	ND	E8	25.0	23.2		ug/L		93	65 - 134	12	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	21.2		ug/L		85	53 - 145	10	35
Ethylene Dibromide	ND	E8	25.0	20.7		ug/L		83	70 - 130	22	33
Dibromomethane	ND	E8	25.0	24.0		ug/L		96	66 - 136	15	35
1,2-Dichlorobenzene	ND	E8	25.0	23.2		ug/L		93	70 - 130	8	27
1,3-Dichlorobenzene	ND	E8	25.0	23.4		ug/L		94	70 - 130	6	28
1,4-Dichlorobenzene	ND	E8	25.0	23.0		ug/L		92	70 - 130	11	26
Dichlorodifluoromethane	0.25	E4	25.0	21.7		ug/L		86	40 - 148	7	35
1,1-Dichloroethane	ND	E8	25.0	22.8		ug/L		91	62 - 130	8	34
1,2-Dichloroethane	ND	E8	25.0	23.7		ug/L		95	54 - 147	14	35
1,1-Dichloroethene	3.6		25.0	25.6		ug/L		88	57 - 137	14	35
cis-1,2-Dichloroethene	ND	E8	25.0	22.8		ug/L		91	65 - 127	9	34
trans-1,2-Dichloroethene	ND	E8	25.0	22.6		ug/L		90	62 - 131	12	35
1,2-Dichloropropane	ND	E8	25.0	22.3		ug/L		89	68 - 126	11	32
1,3-Dichloropropane	ND	E8	25.0	21.2		ug/L		85	68 - 129	17	33
2,2-Dichloropropane	ND	E8	25.0	28.5		ug/L		114	60 - 146	5	35
1,1-Dichloropropene	ND	E8	25.0	23.3		ug/L		93	64 - 134	9	34
cis-1,3-Dichloropropene	ND	E8	25.0	22.7		ug/L		91	63 - 135	17	35
trans-1,3-Dichloropropene	ND	E8	25.0	23.3		ug/L		93	58 - 136	15	35
Ethylbenzene	ND	E8	25.0	22.3		ug/L		89	74 - 134	14	32
Hexachlorobutadiene	ND	E8	25.0	22.4		ug/L		90	69 - 150	11	32
2-Hexanone	ND	E8	25.0	19.7		ug/L		79	40 - 142	7	35
Iodomethane	ND	E8	25.0	23.9		ug/L		96	53 - 150	8	35
Isopropylbenzene	ND	E8	25.0	23.3		ug/L		93	80 - 146	4	32
4-Isopropyltoluene	ND	E8	25.0	23.2		ug/L		93	70 - 133	11	32
Methylene Chloride	ND	E8	25.0	21.3		ug/L		85	55 - 133	2	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	22.7		ug/L		91	52 - 143	8	35
Methyl tert-butyl ether	ND	E8	25.0	25.3		ug/L		101	67 - 138	17	21
Naphthalene	ND	E8	25.0	20.7		ug/L		83	67 - 146	16	29
N-Propylbenzene	ND	E8	25.0	23.8		ug/L		95	74 - 140	8	32
Styrene	ND	E8	25.0	22.1		ug/L		88	43 - 144	17	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	21.8		ug/L		87	70 - 130	12	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	23.7		ug/L		95	63 - 137	9	32
Tetrachloroethene	0.81		25.0	21.9		ug/L		84	67 - 131	18	31
Toluene	ND	E8	25.0	22.5		ug/L		90	65 - 138	13	33
1,2,3-Trichlorobenzene	ND	E8	25.0	20.7		ug/L		83	74 - 139	10	26
1,2,4-Trichlorobenzene	ND	E8	25.0	19.7		ug/L		79	74 - 138	13	26
1,1,1-Trichloroethane	ND	E8	25.0	24.4		ug/L		98	64 - 138	5	35
1,1,2-Trichloroethane	ND	E8	25.0	23.1		ug/L		92	63 - 132	19	35

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

Lab Sample ID: 550-41105-1 MSD — **Client Sample ID: IRA-36-030515**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58450

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	13		25.0	33.6		ug/L		83	66 - 132	8	29
Trichlorofluoromethane	ND	E8	25.0	22.9		ug/L		92	62 - 150	12	35
1,2,3-Trichloropropane	ND	E8	25.0	21.7		ug/L		87	68 - 130	15	32
1,2,4-Trimethylbenzene	ND	E8	25.0	22.6		ug/L		90	63 - 135	9	31
1,3,5-Trimethylbenzene	ND	E8	25.0	23.3		ug/L		93	66 - 137	8	30
Vinyl acetate	ND	E8	25.0	24.2		ug/L		97	47 - 150	19	35
Vinyl chloride	ND	E8	25.0	21.7		ug/L		87	55 - 146	10	35
Xylenes, Total	ND	E8	50.0	42.9		ug/L		86	68 - 131	16	31
Butadiene	ND	E8	25.0	22.2		ug/L		89	10 - 150	11	35
Hexane	ND	E8	25.0	25.0		ug/L		100	46 - 139	12	35
m-Xylene & p-Xylene	ND	E8	25.0	21.3		ug/L		85	58 - 138	17	29
o-Xylene	ND	E8	25.0	21.6		ug/L		86	66 - 137	16	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*79*		*70 - 130*
Toluene-d8 (Surr)	*81*		*70 - 130*
4-Bromofluorobenzene (Surr)	*71*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58091/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58091

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/06/15 17:36	1

Lab Sample ID: LCS 550-58091/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.02		mg/L		100	90 - 110

Lab Sample ID: LCSD 550-58091/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58091

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.01		mg/L		100	90 - 110	0	20

Lab Sample ID: 550-41105-3 MS — **Client Sample ID: IRA-24-030515**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	13	M2	4.00	16.0	M2	mg/L		72	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-41105-3 MSD — **Client Sample ID: IRA-24-030515**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58091

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	13	M2	4.00	16.0	M2	mg/L		73	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-57978/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58254 — **Prep Batch: 57978**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	E8	0.010	0.00050	mg/L		03/06/15 12:01	03/10/15 22:33	1

Lab Sample ID: LCS 550-57978/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58254 — **Prep Batch: 57978**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	1.02		mg/L		102	85 - 115

Lab Sample ID: LCSD 550-57978/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58254 — **Prep Batch: 57978**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	1.00	1.03		mg/L		103	85 - 115	1	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

GC/MS VOA

Analysis Batch: 58450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41105-1	IRA-36-030515	Total/NA	Water	8260B	
550-41105-1 MS	IRA-36-030515	Total/NA	Water	8260B	
550-41105-1 MSD	IRA-36-030515	Total/NA	Water	8260B	
550-41105-2	IRA-37-030515	Total/NA	Water	8260B	
550-41105-3	IRA-24-030515	Total/NA	Water	8260B	
550-41105-4	TB	Total/NA	Water	8260B	
LCS 550-58450/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58450/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58450/5	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41105-1	IRA-36-030515	Total/NA	Water	300.0	
550-41105-2	IRA-37-030515	Total/NA	Water	300.0	
550-41105-3	IRA-24-030515	Total/NA	Water	300.0	
550-41105-3 MS	IRA-24-030515	Total/NA	Water	300.0	
550-41105-3 MSD	IRA-24-030515	Total/NA	Water	300.0	
LCS 550-58091/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58091/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58091/2	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 57978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41105-1	IRA-36-030515	Total/NA	Water	200.7	
550-41105-2	IRA-37-030515	Total/NA	Water	200.7	
550-41105-3	IRA-24-030515	Total/NA	Water	200.7	
LCS 550-57978/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-57978/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-57978/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41105-1	IRA-36-030515	Total/NA	Water	200.7 Rev 4.4	57978
550-41105-2	IRA-37-030515	Total/NA	Water	200.7 Rev 4.4	57978
550-41105-3	IRA-24-030515	Total/NA	Water	200.7 Rev 4.4	57978
LCS 550-57978/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	57978
LCSD 550-57978/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	57978
MB 550-57978/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	57978

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Client Sample ID: IRA-36-030515 — Lab Sample ID: 550-41105-1

Date Collected: 03/05/15 09:43 — **Matrix: Water**
Date Received: 03/05/15 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58450	03/13/15 11:58	JHU	TAL PHX
Total/NA	Analysis	300.0		1	58091	03/06/15 20:32	YAF	TAL PHX
Total/NA	Prep	200.7			57978	03/06/15 12:01	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58254	03/10/15 23:01	AJC	TAL PHX

Client Sample ID: IRA-37-030515 — Lab Sample ID: 550-41105-2

Date Collected: 03/05/15 11:00 — **Matrix: Water**
Date Received: 03/05/15 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58450	03/13/15 13:33	JHU	TAL PHX
Total/NA	Analysis	300.0		1	58091	03/06/15 20:51	YAF	TAL PHX
Total/NA	Prep	200.7			57978	03/06/15 12:01	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58254	03/10/15 23:05	AJC	TAL PHX

Client Sample ID: IRA-24-030515 — Lab Sample ID: 550-41105-3

Date Collected: 03/05/15 12:18 — **Matrix: Water**
Date Received: 03/05/15 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58450	03/13/15 14:04	JHU	TAL PHX
Total/NA	Analysis	300.0		1	58091	03/06/15 21:09	YAF	TAL PHX
Total/NA	Prep	200.7			57978	03/06/15 12:01	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58254	03/10/15 23:08	AJC	TAL PHX

Client Sample ID: TB — Lab Sample ID: 550-41105-4

Date Collected: 03/05/15 12:19 — **Matrix: Water**
Date Received: 03/05/15 14:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58450	03/13/15 10:55	JHU	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
SDG: 1420142030.5.2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

550-41105

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page _____ of _____

3/31/2015

Client Name/Address: AMEC 4600 E Washington Phoenix, AZ

Project/PO Number: Miracle Mile WQARF 1420142030.5.2

Project Manager: Ailiang Gu

Phone Number: 480-285-4310

Sampler: Sargent/Combs

Fax Number:

550-41105 Chain of Custody

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	300.0 Nitrate	200.7 Total Chromium	8260LL							Special Instructions
IRA-36-030515 -1	Aq	250ml	1	3/5/15	943	none	X									
IRA-37-030515 -2	Aq	250ml	1	3/5/15	1100	none	X									
IRA-24-030515 3	Aq	250ml	1	3/5/15	1218	none	X									
IRA-36-030515	Aq	250ml	1	3/5/15	943	HNO3		X								
IRA-37-030515	Aq	250ml	1	3/5/15	1100	HNO3		X								
IRA-24-030515	Aq	250 ml	1	3/5/15	1218	HNO3		X								
IRA-36-030515	Aq	40ml	3	3/5/15	943	HCl			X							
IRA-37-030515	Aq	40ml	3	3/5/15	1100	HCl			X							
IRA-24-030515	Aq	40ml	3	3/5/15	1218	HCl			X							
TB	Aq	40ml	1	3/5/15	1219	HCl			X							

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)
[signature]	3/5/15 / 1434	[signature]	3-5-15 1434	same day ____ 72 hours ____
[signature]	3-5-15 1530			24 hours ____ 5 days ____
				48 hours ____ normal X
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:	Sample Integrity: (Check)
		[signature]	3-6-15 0903	intact X on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

5.7

2.2°C

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41105-1
SDG Number: 1420142030.5.2

Login Number: 41105
List Number: 1
Creator: Gaska, Kristinena

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41183-1
TestAmerica Sample Delivery Group: 1420142030.5.2
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/20/2015 3:53:38 PM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
N1	See case narrative.
L4	The associated blank spike recovery was below method acceptance limits.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
B1	Target analyte detected in method blank at or above the method reporting limit.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-41183-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41183-1

Comments
No additional comments.

Receipt
The samples were received on 3/7/2015 12:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.5º C and 2.1º C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS will be flagged with an N1 and reported, see batchs 58455 & 58659.

Method(s) 8260B: The method blank for batch 58455 contained 1,2,3-Trichlorobenzene above the reporting limit (RL).

Method(s) 8260B: Internal standard (ISTD) response for TBA-d9 for sample 550-41183-B-1 was outside acceptance criteria,low. This ISTD does not correspond to any of the requested target compounds; therefore, the data has been reported with E6 flag.

Method(s) 624, 8260B: Surrogate recovery for 4-Bromofluorobenzene and Dibromofluoromethane in the continuing calibration verification (CCVIS) and matrix spikes (MS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Dibromofluoromethane in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS and MS will be flagged with an N1 and reported, see batch 58728.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41183-1	IRA-2-030615	Water	03/06/15 13:35	03/06/15 14:40
550-41183-2	IRA-41-030615	Water	03/06/15 10:45	03/06/15 14:40
550-41183-3	TB	Water	03/06/15 13:36	03/06/15 14:40

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Client Sample ID: IRA-2-030615 — Lab Sample ID: 550-41183-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.15	E4	0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.49	E4	0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.23	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.43	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	1.4		0.50	0.24	ug/L	1		8260B	Total/NA
Bromide	0.47	E4	0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	140	D2	20	2.9	mg/L	10		300.0	Total/NA
Nitrate as N	7.5		0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	230	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.14		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	97		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.017		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	6.5		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.9		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	140		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	120		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-41-030615 — Lab Sample ID: 550-41183-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.93		0.50	0.15	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.42	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Bromide	0.28	E4	0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	42		2.0	0.29	mg/L	1		300.0	Total/NA
Nitrate as N	0.71		0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	200	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.22		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	23		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.0026	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	0.30	E4	2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	1.7		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	140		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41183-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Client Sample ID: IRA-2-030615

Lab Sample ID: 550-41183-1

Date Collected: 03/06/15 13:35
Date Received: 03/06/15 14:40

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 R6	10	7.3	ug/L			03/13/15 22:30	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 22:30	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 22:30	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 22:30	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 22:30	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 22:30	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 22:30	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/13/15 22:30	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 22:30	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 22:30	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 22:30	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 22:30	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 22:30	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 22:30	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 22:30	1
Chloroform	**0.15**	**E4**	0.50	0.13	ug/L			03/13/15 22:30	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 22:30	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 22:30	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 22:30	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 22:30	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 22:30	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 22:30	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 22:30	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 22:30	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 22:30	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 22:30	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 22:30	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 22:30	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 22:30	1
1,1-Dichloroethene	**0.49**	**E4**	0.50	0.23	ug/L			03/13/15 22:30	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 22:30	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 22:30	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 22:30	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 22:30	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 22:30	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 22:30	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 22:30	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 22:30	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 22:30	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 22:30	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 22:30	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 22:30	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 22:30	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 22:30	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 22:30	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 22:30	1
Methyl tert-butyl ether	**0.23**	**E4**	0.50	0.22	ug/L			03/13/15 22:30	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 11:44	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 22:30	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Client Sample ID: IRA-2-030615

Date Collected: 03/06/15 13:35
Date Received: 03/06/15 14:40

Lab Sample ID: 550-41183-1

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 22:30	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 22:30	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 22:30	1
Tetrachloroethene	**0.43**	**E4**	0.50	0.18	ug/L			03/13/15 22:30	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 22:30	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 11:44	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 11:44	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 22:30	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 22:30	1
Trichloroethene	**1.4**		0.50	0.24	ug/L			03/13/15 22:30	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 22:30	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 22:30	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 22:30	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 22:30	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 22:30	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 22:30	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 22:30	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 22:30	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 22:30	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/13/15 22:30	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 22:30*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 22:30*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 22:30*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 22:30*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 22:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*03/13/15 22:30*	*1*
Dibromofluoromethane (Surr)	*89*		*70 - 130*		*03/17/15 11:44*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*03/13/15 22:30*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*03/17/15 11:44*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/13/15 22:30*	*1*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*		*03/17/15 11:44*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.47**	**E4**	0.50	0.051	mg/L			03/07/15 12:57	1
Chloride	**140**	**D2**	20	2.9	mg/L			03/13/15 02:34	10
Nitrate as N	**7.5**		0.10	0.051	mg/L			03/07/15 12:57	1
Sulfate	**230**	**D2**	20	2.1	mg/L			03/13/15 02:34	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.14**		0.050	0.0049	mg/L		03/09/15 12:10	03/11/15 18:41	1
Calcium	**97**		2.0	0.014	mg/L		03/09/15 12:10	03/11/15 18:41	1
Chromium	**0.017**		0.010	0.00050	mg/L		03/09/15 12:10	03/11/15 18:41	1
Magnesium	**6.5**		2.0	0.017	mg/L		03/09/15 12:10	03/11/15 18:41	1
Potassium	**2.9**		0.50	0.067	mg/L		03/09/15 12:10	03/11/15 18:41	1

Client Sample ID: IRA-2-030615

Lab Sample ID: 550-41183-1

Date Collected: 03/06/15 13:35
Matrix: Water
Date Received: 03/06/15 14:40

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**140**		0.50	0.15	mg/L		03/09/15 12:10	03/11/15 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**120**		6.0	6.0	mg/L			03/14/15 03:24	1
Bicarbonate Alkalinity as CaCO3	**120**		6.0	6.0	mg/L			03/14/15 03:24	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 03:24	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 03:24	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 03:24	1

Client Sample ID: IRA-41-030615

Lab Sample ID: 550-41183-2

Date Collected: 03/06/15 10:45
Matrix: Water
Date Received: 03/06/15 14:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 R6	10	7.3	ug/L			03/13/15 23:01	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 23:01	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 23:01	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 23:01	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 23:01	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 23:01	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 23:01	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/13/15 23:01	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 23:01	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 23:01	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 23:01	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 23:01	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 23:01	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 23:01	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 23:01	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 23:01	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 23:01	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 23:01	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 23:01	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 23:01	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 23:01	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 23:01	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 23:01	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 23:01	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 23:01	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 23:01	1
Dichlorodifluoromethane	**0.93**		0.50	0.15	ug/L			03/13/15 23:01	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 23:01	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 23:01	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/13/15 23:01	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 23:01	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 23:01	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 23:01	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 23:01	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Client Sample ID: IRA-41-030615

Date Collected: 03/06/15 10:45
Date Received: 03/06/15 14:40

Lab Sample ID: 550-41183-2

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 23:01	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 23:01	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 23:01	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 23:01	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 23:01	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 23:01	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 23:01	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 23:01	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 23:01	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 23:01	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 23:01	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 23:01	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 23:01	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 13:17	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 23:01	1
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 23:01	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 23:01	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 23:01	1
Tetrachloroethene	**0.42**	**E4**	0.50	0.18	ug/L			03/13/15 23:01	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 23:01	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 13:17	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 13:17	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 23:01	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 23:01	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/13/15 23:01	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 23:01	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 23:01	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 23:01	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 23:01	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 23:01	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 23:01	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 23:01	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 23:01	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 23:01	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/13/15 23:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 23:01*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 23:01*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 23:01*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 23:01*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 23:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*03/13/15 23:01*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*03/17/15 13:17*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/13/15 23:01*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*03/17/15 13:17*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*03/13/15 23:01*	*1*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*		*03/17/15 13:17*	*1*

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Client Sample ID: IRA-41-030615

Lab Sample ID: 550-41183-2

Date Collected: 03/06/15 10:45
Matrix: Water
Date Received: 03/06/15 14:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.28	E4	0.50	0.051	mg/L			03/07/15 13:52	1
Chloride	42		2.0	0.29	mg/L			03/07/15 13:52	1
Nitrate as N	0.71		0.10	0.051	mg/L			03/07/15 13:52	1
Sulfate	200	D2	20	2.1	mg/L			03/12/15 12:23	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.22		0.050	0.0049	mg/L		03/09/15 12:10	03/11/15 18:44	1
Calcium	23		2.0	0.014	mg/L		03/09/15 12:10	03/11/15 18:44	1
Chromium	0.0026	E4	0.010	0.00050	mg/L		03/09/15 12:10	03/11/15 18:44	1
Magnesium	0.30	E4	2.0	0.017	mg/L		03/09/15 12:10	03/11/15 18:44	1
Potassium	1.7		0.50	0.067	mg/L		03/09/15 12:10	03/11/15 18:44	1
Sodium	140		0.50	0.15	mg/L		03/09/15 12:10	03/11/15 18:44	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	110		6.0	6.0	mg/L			03/14/15 03:36	1
Bicarbonate Alkalinity as CaCO3	110		6.0	6.0	mg/L			03/14/15 03:36	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 03:36	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 03:36	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 03:36	1

Client Sample ID: TB

Lab Sample ID: 550-41183-3

Date Collected: 03/06/15 13:36
Matrix: Water
Date Received: 03/06/15 14:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 R6	10	7.3	ug/L			03/13/15 16:35	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 16:35	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 16:35	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 16:35	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 16:35	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 16:35	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 16:35	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/13/15 16:35	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 16:35	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 16:35	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 16:35	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 16:35	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 16:35	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 16:35	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 16:35	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 16:35	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 16:35	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 16:35	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 16:35	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 16:35	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 16:35	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 16:35	1

Client Sample ID: TB

Lab Sample ID: 550-41183-3

Date Collected: 03/06/15 13:36
Matrix: Water
Date Received: 03/06/15 14:40

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 16:35	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 16:35	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 16:35	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 16:35	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 16:35	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 16:35	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 16:35	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/13/15 16:35	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 16:35	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 16:35	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 16:35	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 16:35	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 16:35	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 16:35	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 16:35	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 16:35	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 16:35	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 16:35	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 16:35	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 16:35	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 16:35	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 16:35	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 16:35	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 16:35	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 16:35	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/16/15 22:08	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 16:35	1
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 16:35	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 16:35	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 16:35	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/13/15 16:35	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 16:35	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/16/15 22:08	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/16/15 22:08	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 16:35	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 16:35	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/13/15 16:35	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 16:35	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 16:35	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 16:35	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 16:35	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 16:35	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 16:35	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 16:35	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 16:35	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 16:35	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/13/15 16:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 16:35*	*1*

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Client Sample ID: TB
Date Collected: 03/06/15 13:36
Date Received: 03/06/15 14:40

Lab Sample ID: 550-41183-3
Matrix: Water

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Dicyclopentadiene TIC	ND	E8 T4	ug/L			77-73-6		03/13/15 16:35	1
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/13/15 16:35	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/13/15 16:35	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/13/15 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100		70 - 130		03/13/15 16:35	1
Dibromofluoromethane (Surr)	98		70 - 130		03/16/15 22:08	1
Toluene-d8 (Surr)	90		70 - 130		03/13/15 16:35	1
Toluene-d8 (Surr)	90		70 - 130		03/16/15 22:08	1
4-Bromofluorobenzene (Surr)	86		70 - 130		03/13/15 16:35	1
4-Bromofluorobenzene (Surr)	82		70 - 130		03/16/15 22:08	1

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41183-1	IRA-2-030615	102	87	91
550-41183-1	IRA-2-030615	89	84	74
550-41183-1 MS	IRA-2-030615	76	78	69 N1
550-41183-1 MSD	IRA-2-030615	78	80	75
550-41183-2	IRA-41-030615	100	94	88
550-41183-2	IRA-41-030615	99	85	79
550-41183-3	TB	100	90	86
550-41183-3	TB	98	90	82
LCS 550-58455/10	Lab Control Sample	79	84	79
LCS 550-58575/3	Lab Control Sample	74	81	76
LCS 550-58659/4	Lab Control Sample	91	83	80
LCSD 550-58455/11	Lab Control Sample Dup	83	85	83
LCSD 550-58575/4	Lab Control Sample Dup	77	83	78
LCSD 550-58659/5	Lab Control Sample Dup	77	75	75
MB 550-58455/9	Method Blank	93	91	90
MB 550-58575/5	Method Blank	83	84	85
MB 550-58659/6	Method Blank	95	85	82

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-58455/9
Matrix: Water
Analysis Batch: 58455

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/13/15 13:55	1
Benzene	ND	E8	0.50	0.12	ug/L			03/13/15 13:55	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 13:55	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/13/15 13:55	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/13/15 13:55	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/13/15 13:55	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/13/15 13:55	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/13/15 13:55	1
n-Butylbenzene	0.414	E4	0.50	0.21	ug/L			03/13/15 13:55	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/13/15 13:55	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 13:55	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/13/15 13:55	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/13/15 13:55	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 13:55	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/13/15 13:55	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/13/15 13:55	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/13/15 13:55	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/13/15 13:55	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/13/15 13:55	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/13/15 13:55	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/13/15 13:55	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/13/15 13:55	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/13/15 13:55	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/13/15 13:55	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/13/15 13:55	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/13/15 13:55	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 13:55	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/13/15 13:55	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 13:55	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/13/15 13:55	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/13/15 13:55	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/13/15 13:55	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 13:55	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/13/15 13:55	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/13/15 13:55	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/13/15 13:55	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/13/15 13:55	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/13/15 13:55	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/13/15 13:55	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/13/15 13:55	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/13/15 13:55	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/13/15 13:55	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/13/15 13:55	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/13/15 13:55	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/13/15 13:55	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/13/15 13:55	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/13/15 13:55	1
Naphthalene	2.24	E4	2.5	0.51	ug/L			03/13/15 13:55	1

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

Lab Sample ID: MB 550-58455/9
Matrix: Water
Analysis Batch: 58455

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 13:55	1
Styrene	ND	E8	0.50	0.17	ug/L			03/13/15 13:55	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/13/15 13:55	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/13/15 13:55	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/13/15 13:55	1
Toluene	ND	E8	0.50	0.28	ug/L			03/13/15 13:55	1
1,2,3-Trichlorobenzene	1.29	B1	1.0	0.45	ug/L			03/13/15 13:55	1
1,2,4-Trichlorobenzene	0.642	E4	1.0	0.32	ug/L			03/13/15 13:55	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/13/15 13:55	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/13/15 13:55	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/13/15 13:55	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/13/15 13:55	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/13/15 13:55	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/13/15 13:55	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/13/15 13:55	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/13/15 13:55	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/13/15 13:55	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/13/15 13:55	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/13/15 13:55	1
Hexane	ND	E8	2.0	1.6	ug/L			03/13/15 13:55	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/13/15 13:55	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/13/15 13:55*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/13/15 13:55*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/13/15 13:55*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/13/15 13:55*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/13/15 13:55*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*03/13/15 13:55*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*03/13/15 13:55*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*03/13/15 13:55*	*1*

Lab Sample ID: LCS 550-58455/10
Matrix: Water
Analysis Batch: 58455

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	17.0		ug/L		68	38 - 150
Benzene	25.0	24.3		ug/L		97	70 - 130
Bromobenzene	25.0	26.6		ug/L		107	70 - 130
Chlorobromomethane	25.0	23.6		ug/L		94	70 - 130
Dichlorobromomethane	25.0	23.2		ug/L		93	70 - 130
Bromoform	25.0	21.2		ug/L		85	69 - 129
Bromomethane	25.0	25.7		ug/L		103	57 - 138
2-Butanone (MEK)	25.0	24.2		ug/L		97	53 - 150

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

Lab Sample ID: LCS 550-58455/10
Matrix: Water
Analysis Batch: 58455

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	23.2		ug/L		93	70 - 130
sec-Butylbenzene	25.0	24.2		ug/L		97	70 - 130
Carbon disulfide	25.0	26.0		ug/L		104	64 - 145
Carbon tetrachloride	25.0	25.9		ug/L		103	70 - 143
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130
Chloroethane	25.0	23.9		ug/L		95	66 - 131
Chloroform	25.0	25.1		ug/L		100	70 - 130
Chloromethane	25.0	22.8		ug/L		91	56 - 129
2-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
4-Chlorotoluene	25.0	27.1		ug/L		108	70 - 130
Chlorodibromomethane	25.0	23.8		ug/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	18.5		ug/L		74	63 - 146
Ethylene Dibromide	25.0	23.2		ug/L		93	70 - 130
Dibromomethane	25.0	20.6		ug/L		82	70 - 130
1,2-Dichlorobenzene	25.0	24.1		ug/L		96	70 - 130
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,4-Dichlorobenzene	25.0	24.8		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	22.1		ug/L		88	46 - 144
1,1-Dichloroethane	25.0	24.4		ug/L		98	70 - 130
1,2-Dichloroethane	25.0	22.9		ug/L		91	66 - 139
1,1-Dichloroethene	25.0	25.9		ug/L		104	63 - 131
cis-1,2-Dichloroethene	25.0	25.2		ug/L		101	70 - 130
trans-1,2-Dichloroethene	25.0	26.9		ug/L		108	69 - 127
1,2-Dichloropropane	25.0	24.1		ug/L		96	70 - 130
1,3-Dichloropropane	25.0	22.8		ug/L		91	70 - 130
2,2-Dichloropropane	25.0	27.5		ug/L		110	69 - 139
1,1-Dichloropropene	25.0	25.9		ug/L		104	70 - 130
cis-1,3-Dichloropropene	25.0	25.1		ug/L		101	70 - 130
trans-1,3-Dichloropropene	25.0	21.2		ug/L		85	70 - 130
Ethylbenzene	25.0	24.8		ug/L		99	70 - 130
Hexachlorobutadiene	25.0	21.5		ug/L		86	76 - 145
2-Hexanone	25.0	21.0		ug/L		84	55 - 150
Iodomethane	25.0	26.0		ug/L		104	70 - 130
Isopropylbenzene	25.0	27.1		ug/L		108	88 - 141
4-Isopropyltoluene	25.0	24.2		ug/L		97	70 - 130
Methylene Chloride	25.0	22.9		ug/L		92	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	19.5		ug/L		78	64 - 142
Methyl tert-butyl ether	25.0	22.7		ug/L		91	70 - 130
Naphthalene	25.0	19.2	L4	ug/L		77	78 - 143
N-Propylbenzene	25.0	26.5		ug/L		106	70 - 130
Styrene	25.0	23.4		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.3		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	70 - 130
Tetrachloroethene	25.0	26.8		ug/L		107	70 - 130
Toluene	25.0	23.6		ug/L		94	70 - 130
1,2,3-Trichlorobenzene	25.0	18.0	L4	ug/L		72	79 - 139
1,2,4-Trichlorobenzene	25.0	19.3	L4	ug/L		77	80 - 137
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	71 - 131

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

Lab Sample ID: LCS 550-58455/10
Matrix: Water
Analysis Batch: 58455

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	21.3		ug/L		85	70 - 130
Trichloroethene	25.0	25.7		ug/L		103	70 - 130
Trichlorofluoromethane	25.0	24.4		ug/L		98	69 - 150
1,2,3-Trichloropropane	25.0	23.0		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	25.0	26.0		ug/L		104	70 - 130
Vinyl acetate	25.0	21.5		ug/L		86	67 - 148
Vinyl chloride	25.0	23.6		ug/L		94	65 - 137
Xylenes, Total	50.0	48.7		ug/L		97	70 - 130
Butadiene	25.0	24.3		ug/L		97	12 - 150
Hexane	25.0	26.7		ug/L		107	54 - 132
m-Xylene & p-Xylene	25.0	23.5		ug/L		94	70 - 130
o-Xylene	25.0	25.2		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*79*		*70 - 130*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*

Lab Sample ID: LCSD 550-58455/11
Matrix: Water
Analysis Batch: 58455

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	10.5	R6	ug/L		42	38 - 150	47	35
Benzene	25.0	24.7		ug/L		99	70 - 130	2	20
Bromobenzene	25.0	27.9		ug/L		112	70 - 130	5	20
Chlorobromomethane	25.0	22.3		ug/L		89	70 - 130	6	20
Dichlorobromomethane	25.0	24.1		ug/L		96	70 - 130	4	20
Bromoform	25.0	22.7		ug/L		91	69 - 129	7	20
Bromomethane	25.0	26.0		ug/L		104	57 - 138	1	20
2-Butanone (MEK)	25.0	21.6		ug/L		86	53 - 150	11	35
n-Butylbenzene	25.0	25.4		ug/L		102	70 - 130	9	20
sec-Butylbenzene	25.0	25.4		ug/L		102	70 - 130	5	20
Carbon disulfide	25.0	27.6		ug/L		110	64 - 145	6	33
Carbon tetrachloride	25.0	26.8		ug/L		107	70 - 143	4	20
Chlorobenzene	25.0	24.2		ug/L		97	70 - 130	4	20
Chloroethane	25.0	23.0		ug/L		92	66 - 131	3	20
Chloroform	25.0	24.0		ug/L		96	70 - 130	4	20
Chloromethane	25.0	23.1		ug/L		93	56 - 129	1	20
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130	5	20
4-Chlorotoluene	25.0	27.6		ug/L		110	70 - 130	2	20
Chlorodibromomethane	25.0	22.9		ug/L		92	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	21.1		ug/L		84	63 - 146	13	22
Ethylene Dibromide	25.0	23.3		ug/L		93	70 - 130	0	20
Dibromomethane	25.0	21.9		ug/L		87	70 - 130	6	20
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	6	20
1,3-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	5	20

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

Lab Sample ID: LCSD 550-58455/11
Matrix: Water
Analysis Batch: 58455

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	1	20
Dichlorodifluoromethane	25.0	23.7		ug/L		95	46 - 144	7	23
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130	4	20
1,2-Dichloroethane	25.0	21.2		ug/L		85	66 - 139	8	20
1,1-Dichloroethene	25.0	26.5		ug/L		106	63 - 131	2	22
cis-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130	6	20
trans-1,2-Dichloroethene	25.0	26.2		ug/L		105	69 - 127	3	20
1,2-Dichloropropane	25.0	23.5		ug/L		94	70 - 130	2	20
1,3-Dichloropropane	25.0	22.9		ug/L		92	70 - 130	1	20
2,2-Dichloropropane	25.0	27.1		ug/L		108	69 - 139	2	20
1,1-Dichloropropene	25.0	26.6		ug/L		106	70 - 130	3	20
cis-1,3-Dichloropropene	25.0	23.9		ug/L		96	70 - 130	5	20
trans-1,3-Dichloropropene	25.0	20.6		ug/L		82	70 - 130	3	20
Ethylbenzene	25.0	24.5		ug/L		98	70 - 130	1	20
Hexachlorobutadiene	25.0	21.3		ug/L		85	76 - 145	1	20
2-Hexanone	25.0	15.6		ug/L		62	55 - 150	30	35
Iodomethane	25.0	26.5		ug/L		106	70 - 130	2	20
Isopropylbenzene	25.0	29.1		ug/L		116	88 - 141	7	20
4-Isopropyltoluene	25.0	25.6		ug/L		102	70 - 130	6	20
Methylene Chloride	25.0	24.3		ug/L		97	63 - 128	6	21
4-Methyl-2-pentanone (MIBK)	25.0	19.6		ug/L		78	64 - 142	1	25
Methyl tert-butyl ether	25.0	22.3		ug/L		89	70 - 130	2	20
Naphthalene	25.0	20.2		ug/L		81	78 - 143	6	20
N-Propylbenzene	25.0	28.0		ug/L		112	70 - 130	6	20
Styrene	25.0	22.5		ug/L		90	70 - 130	4	20
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	6	20
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		103	70 - 130	6	20
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130	5	20
Toluene	25.0	24.1		ug/L		96	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	19.2	L4	ug/L		77	79 - 139	6	20
1,2,4-Trichlorobenzene	25.0	19.6	L4	ug/L		78	80 - 137	1	20
1,1,1-Trichloroethane	25.0	26.4		ug/L		105	71 - 131	0	20
1,1,2-Trichloroethane	25.0	23.8		ug/L		95	70 - 130	11	20
Trichloroethene	25.0	24.8		ug/L		99	70 - 130	3	20
Trichlorofluoromethane	25.0	25.8		ug/L		103	69 - 150	5	22
1,2,3-Trichloropropane	25.0	25.8		ug/L		103	70 - 130	11	20
1,2,4-Trimethylbenzene	25.0	24.9		ug/L		100	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130	3	20
Vinyl acetate	25.0	20.7		ug/L		83	67 - 148	4	22
Vinyl chloride	25.0	25.0		ug/L		100	65 - 137	6	20
Xylenes, Total	50.0	47.6		ug/L		95	70 - 130	2	20
Butadiene	25.0	26.9		ug/L		108	12 - 150	10	35
Hexane	25.0	27.8		ug/L		111	54 - 132	4	28
m-Xylene & p-Xylene	25.0	23.4		ug/L		93	70 - 130	1	20
o-Xylene	25.0	24.2		ug/L		97	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*83*		*70 - 130*

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

Lab Sample ID: LCSD 550-58455/11
Matrix: Water
Analysis Batch: 58455

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*85*		*70 - 130*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*

Lab Sample ID: MB 550-58575/5
Matrix: Water
Analysis Batch: 58575

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/16/15 13:22	1
Benzene	ND	E8	0.50	0.12	ug/L			03/16/15 13:22	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/16/15 13:22	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/16/15 13:22	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/16/15 13:22	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/16/15 13:22	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/16/15 13:22	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/16/15 13:22	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/16/15 13:22	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/16/15 13:22	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/16/15 13:22	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/16/15 13:22	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/16/15 13:22	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/16/15 13:22	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/16/15 13:22	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/16/15 13:22	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/16/15 13:22	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/16/15 13:22	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/16/15 13:22	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/16/15 13:22	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/16/15 13:22	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/16/15 13:22	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/16/15 13:22	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/16/15 13:22	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/16/15 13:22	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/16/15 13:22	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/16/15 13:22	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/16/15 13:22	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/16/15 13:22	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/16/15 13:22	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/16/15 13:22	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/16/15 13:22	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/16/15 13:22	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/16/15 13:22	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/16/15 13:22	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/16/15 13:22	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/16/15 13:22	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/16/15 13:22	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/16/15 13:22	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/16/15 13:22	1

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

Lab Sample ID: MB 550-58575/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58575

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/16/15 13:22	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/16/15 13:22	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/16/15 13:22	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/16/15 13:22	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/16/15 13:22	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/16/15 13:22	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/16/15 13:22	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/16/15 13:22	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/16/15 13:22	1
Styrene	ND	E8	0.50	0.17	ug/L			03/16/15 13:22	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/16/15 13:22	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/16/15 13:22	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/16/15 13:22	1
Toluene	ND	E8	0.50	0.28	ug/L			03/16/15 13:22	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/16/15 13:22	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/16/15 13:22	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/16/15 13:22	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/16/15 13:22	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/16/15 13:22	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/16/15 13:22	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/16/15 13:22	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/16/15 13:22	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/16/15 13:22	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/16/15 13:22	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/16/15 13:22	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/16/15 13:22	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/16/15 13:22	1
Hexane	ND	E8	2.0	1.6	ug/L			03/16/15 13:22	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/16/15 13:22*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/16/15 13:22*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/16/15 13:22*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/16/15 13:22*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/16/15 13:22*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*83*		*70 - 130*		*03/16/15 13:22*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*03/16/15 13:22*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*03/16/15 13:22*	*1*

Lab Sample ID: LCS 550-58575/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	30.2		ug/L		121	38 - 150

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

Lab Sample ID: LCS 550-58575/3
Matrix: Water
Analysis Batch: 58575

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.4		ug/L		101	70 - 130
Bromobenzene	25.0	25.4		ug/L		101	70 - 130
Chlorobromomethane	25.0	21.8		ug/L		87	70 - 130
Dichlorobromomethane	25.0	24.6		ug/L		98	70 - 130
Bromoform	25.0	28.5		ug/L		114	69 - 129
Bromomethane	25.0	24.3		ug/L		97	57 - 138
2-Butanone (MEK)	25.0	31.2		ug/L		125	53 - 150
n-Butylbenzene	25.0	28.0		ug/L		112	70 - 130
sec-Butylbenzene	25.0	28.3		ug/L		113	70 - 130
Carbon disulfide	25.0	27.6		ug/L		110	64 - 145
Carbon tetrachloride	25.0	28.2		ug/L		113	70 - 143
Chlorobenzene	25.0	25.1		ug/L		101	70 - 130
Chloroethane	25.0	24.5		ug/L		98	66 - 131
Chloroform	25.0	23.7		ug/L		95	70 - 130
Chloromethane	25.0	23.8		ug/L		95	56 - 129
2-Chlorotoluene	25.0	26.9		ug/L		108	70 - 130
4-Chlorotoluene	25.0	27.1		ug/L		108	70 - 130
Chlorodibromomethane	25.0	25.5		ug/L		102	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	31.1		ug/L		124	63 - 146
Ethylene Dibromide	25.0	26.5		ug/L		106	70 - 130
Dibromomethane	25.0	26.6		ug/L		106	70 - 130
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
Dichlorodifluoromethane	25.0	25.8		ug/L		103	46 - 144
1,1-Dichloroethane	25.0	24.3		ug/L		97	70 - 130
1,2-Dichloroethane	25.0	24.0		ug/L		96	66 - 139
1,1-Dichloroethene	25.0	27.8		ug/L		111	63 - 131
cis-1,2-Dichloroethene	25.0	23.3		ug/L		93	70 - 130
trans-1,2-Dichloroethene	25.0	24.3		ug/L		97	69 - 127
1,2-Dichloropropane	25.0	23.0		ug/L		92	70 - 130
1,3-Dichloropropane	25.0	26.8		ug/L		107	70 - 130
2,2-Dichloropropane	25.0	31.0		ug/L		124	69 - 139
1,1-Dichloropropene	25.0	28.4		ug/L		114	70 - 130
cis-1,3-Dichloropropene	25.0	25.9		ug/L		104	70 - 130
trans-1,3-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
Ethylbenzene	25.0	26.1		ug/L		105	70 - 130
Hexachlorobutadiene	25.0	26.3		ug/L		105	76 - 145
2-Hexanone	25.0	27.2		ug/L		109	55 - 150
Iodomethane	25.0	25.0		ug/L		100	70 - 130
Isopropylbenzene	25.0	27.5		ug/L		110	88 - 141
4-Isopropyltoluene	25.0	25.9		ug/L		104	70 - 130
Methylene Chloride	25.0	21.3		ug/L		85	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	28.4		ug/L		114	64 - 142
Methyl tert-butyl ether	25.0	25.2		ug/L		101	70 - 130
Naphthalene	25.0	25.7		ug/L		103	78 - 143
N-Propylbenzene	25.0	28.1		ug/L		113	70 - 130
Styrene	25.0	24.5		ug/L		98	70 - 130

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

Lab Sample ID: LCS 550-58575/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58575

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130
1,1,2,2-Tetrachloroethane	25.0	29.9		ug/L		119	70 - 130
Tetrachloroethene	25.0	28.9		ug/L		115	70 - 130
Toluene	25.0	24.1		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	25.0	21.1		ug/L		84	79 - 139
1,2,4-Trichlorobenzene	25.0	20.3		ug/L		81	80 - 137
1,1,1-Trichloroethane	25.0	26.1		ug/L		104	71 - 131
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	70 - 130
Trichloroethene	25.0	26.4		ug/L		105	70 - 130
Trichlorofluoromethane	25.0	29.4		ug/L		117	69 - 150
1,2,3-Trichloropropane	25.0	32.0		ug/L		128	70 - 130
1,2,4-Trimethylbenzene	25.0	25.5		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130
Vinyl acetate	25.0	27.8		ug/L		111	67 - 148
Vinyl chloride	25.0	27.5		ug/L		110	65 - 137
Xylenes, Total	50.0	50.3		ug/L		101	70 - 130
Butadiene	25.0	29.1		ug/L		116	12 - 150
Hexane	25.0	32.1		ug/L		128	54 - 132
m-Xylene & p-Xylene	25.0	24.3		ug/L		97	70 - 130
o-Xylene	25.0	26.0		ug/L		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*74*		*70 - 130*
Toluene-d8 (Surr)	*81*		*70 - 130*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: LCSD 550-58575/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58575

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	39.1	L5	ug/L		156	38 - 150	25	35
Benzene	25.0	25.0		ug/L		100	70 - 130	1	20
Bromobenzene	25.0	25.2		ug/L		101	70 - 130	1	20
Chlorobromomethane	25.0	23.0		ug/L		92	70 - 130	6	20
Dichlorobromomethane	25.0	24.7		ug/L		99	70 - 130	1	20
Bromoform	25.0	24.8		ug/L		99	69 - 129	14	20
Bromomethane	25.0	24.6		ug/L		99	57 - 138	1	20
2-Butanone (MEK)	25.0	35.5		ug/L		142	53 - 150	13	35
n-Butylbenzene	25.0	25.8		ug/L		103	70 - 130	8	20
sec-Butylbenzene	25.0	27.1		ug/L		108	70 - 130	4	20
Carbon disulfide	25.0	27.7		ug/L		111	64 - 145	0	33
Carbon tetrachloride	25.0	29.0		ug/L		116	70 - 143	3	20
Chlorobenzene	25.0	24.6		ug/L		99	70 - 130	2	20
Chloroethane	25.0	24.7		ug/L		99	66 - 131	1	20
Chloroform	25.0	24.6		ug/L		98	70 - 130	4	20
Chloromethane	25.0	24.2		ug/L		97	56 - 129	2	20
2-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130	4	20

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

Lab Sample ID: LCSD 550-58575/4
Matrix: Water
Analysis Batch: 58575

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130	8	20
Chlorodibromomethane	25.0	25.3		ug/L		101	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	29.1		ug/L		117	63 - 146	6	22
Ethylene Dibromide	25.0	24.6		ug/L		99	70 - 130	7	20
Dibromomethane	25.0	25.1		ug/L		100	70 - 130	6	20
1,2-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130	5	20
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	2	20
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130	6	20
Dichlorodifluoromethane	25.0	25.1		ug/L		100	46 - 144	3	23
1,1-Dichloroethane	25.0	25.4		ug/L		102	70 - 130	4	20
1,2-Dichloroethane	25.0	23.4		ug/L		94	66 - 139	3	20
1,1-Dichloroethene	25.0	27.5		ug/L		110	63 - 131	1	22
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 130	3	20
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	69 - 127	1	20
1,2-Dichloropropane	25.0	23.4		ug/L		94	70 - 130	2	20
1,3-Dichloropropane	25.0	25.3		ug/L		101	70 - 130	5	20
2,2-Dichloropropane	25.0	35.0	L5	ug/L		140	69 - 139	12	20
1,1-Dichloropropene	25.0	27.7		ug/L		111	70 - 130	3	20
cis-1,3-Dichloropropene	25.0	26.1		ug/L		105	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	24.4		ug/L		98	70 - 130	2	20
Ethylbenzene	25.0	24.8		ug/L		99	70 - 130	5	20
Hexachlorobutadiene	25.0	24.5		ug/L		98	76 - 145	7	20
2-Hexanone	25.0	30.5		ug/L		122	55 - 150	12	35
Iodomethane	25.0	25.3		ug/L		101	70 - 130	1	20
Isopropylbenzene	25.0	27.4		ug/L		110	88 - 141	0	20
4-Isopropyltoluene	25.0	24.6		ug/L		98	70 - 130	5	20
Methylene Chloride	25.0	21.3		ug/L		85	63 - 128	0	21
4-Methyl-2-pentanone (MIBK)	25.0	27.5		ug/L		110	64 - 142	3	25
Methyl tert-butyl ether	25.0	25.2		ug/L		101	70 - 130	0	20
Naphthalene	25.0	23.8		ug/L		95	78 - 143	8	20
N-Propylbenzene	25.0	27.2		ug/L		109	70 - 130	4	20
Styrene	25.0	24.1		ug/L		96	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	22.6		ug/L		90	70 - 130	7	20
1,1,2,2-Tetrachloroethane	25.0	27.2		ug/L		109	70 - 130	9	20
Tetrachloroethene	25.0	27.0		ug/L		108	70 - 130	7	20
Toluene	25.0	25.0		ug/L		100	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	21.4		ug/L		85	79 - 139	1	20
1,2,4-Trichlorobenzene	25.0	19.9		ug/L		80	80 - 137	2	20
1,1,1-Trichloroethane	25.0	27.2		ug/L		109	71 - 131	4	20
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	70 - 130	4	20
Trichloroethene	25.0	25.9		ug/L		104	70 - 130	2	20
Trichlorofluoromethane	25.0	28.5		ug/L		114	69 - 150	3	22
1,2,3-Trichloropropane	25.0	26.9		ug/L		108	70 - 130	17	20
1,2,4-Trimethylbenzene	25.0	23.9		ug/L		96	70 - 130	6	20
1,3,5-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130	4	20
Vinyl acetate	25.0	27.8		ug/L		111	67 - 148	0	22
Vinyl chloride	25.0	27.9		ug/L		112	65 - 137	1	20
Xylenes, Total	50.0	47.9		ug/L		96	70 - 130	5	20

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

Lab Sample ID: LCSD 550-58575/4
Matrix: Water
Analysis Batch: 58575

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Butadiene			25.0	29.2		ug/L		117	12 - 150	1	35
Hexane			25.0	31.7		ug/L		127	54 - 132	1	28
m-Xylene & p-Xylene			25.0	24.4		ug/L		98	70 - 130	1	20
o-Xylene			25.0	23.5		ug/L		94	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*77*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*

Lab Sample ID: MB 550-58659/6
Matrix: Water
Analysis Batch: 58659

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 09:25	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 09:25	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 09:25	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 09:25	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 09:25	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 09:25	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 09:25	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 09:25	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 09:25	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 09:25	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 09:25	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 09:25	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 09:25	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 09:25	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 09:25	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 09:25	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 09:25	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 09:25	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 09:25	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 09:25	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 09:25	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 09:25	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 09:25	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 09:25	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 09:25	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 09:25	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 09:25	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 09:25	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 09:25	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 09:25	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 09:25	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 09:25	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 09:25	1

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

Lab Sample ID: MB 550-58659/6
Matrix: Water
Analysis Batch: 58659

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 09:25	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 09:25	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 09:25	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 09:25	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 09:25	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 09:25	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 09:25	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 09:25	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 09:25	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 09:25	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 09:25	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 09:25	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 09:25	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 09:25	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 09:25	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 09:25	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 09:25	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 09:25	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 09:25	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 09:25	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 09:25	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 09:25	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 09:25	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 09:25	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 09:25	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 09:25	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 09:25	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 09:25	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 09:25	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 09:25	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 09:25	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 09:25	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 09:25	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 09:25	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 09:25	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 09:25*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 09:25*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 09:25*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 09:25*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 09:25*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/17/15 09:25*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*03/17/15 09:25*	*1*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*		*03/17/15 09:25*	*1*

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

Lab Sample ID: LCS 550-58659/4
Matrix: Water
Analysis Batch: 58659

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	35.8		ug/L		143	38 - 150
Benzene	25.0	25.8		ug/L		103	70 - 130
Bromobenzene	25.0	26.4		ug/L		106	70 - 130
Chlorobromomethane	25.0	28.3		ug/L		113	70 - 130
Dichlorobromomethane	25.0	27.4		ug/L		109	70 - 130
Bromoform	25.0	25.9		ug/L		104	69 - 129
Bromomethane	25.0	30.4		ug/L		122	57 - 138
2-Butanone (MEK)	25.0	29.1		ug/L		116	53 - 150
n-Butylbenzene	25.0	25.1		ug/L		100	70 - 130
sec-Butylbenzene	25.0	25.5		ug/L		102	70 - 130
Carbon disulfide	25.0	29.3		ug/L		117	64 - 145
Carbon tetrachloride	25.0	25.6		ug/L		102	70 - 143
Chlorobenzene	25.0	25.3		ug/L		101	70 - 130
Chloroethane	25.0	29.1		ug/L		116	66 - 131
Chloroform	25.0	29.9		ug/L		119	70 - 130
Chloromethane	25.0	28.9		ug/L		116	56 - 129
2-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
4-Chlorotoluene	25.0	26.6		ug/L		106	70 - 130
Chlorodibromomethane	25.0	26.3		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.6		ug/L		102	63 - 146
Ethylene Dibromide	25.0	24.6		ug/L		98	70 - 130
Dibromomethane	25.0	28.2		ug/L		113	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	26.5		ug/L		106	70 - 130
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
Dichlorodifluoromethane	25.0	28.8		ug/L		115	46 - 144
1,1-Dichloroethane	25.0	30.0		ug/L		120	70 - 130
1,2-Dichloroethane	25.0	30.9		ug/L		124	66 - 139
1,1-Dichloroethene	25.0	30.0		ug/L		120	63 - 131
cis-1,2-Dichloroethene	25.0	27.8		ug/L		111	70 - 130
trans-1,2-Dichloroethene	25.0	28.1		ug/L		113	69 - 127
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130
1,3-Dichloropropane	25.0	25.6		ug/L		102	70 - 130
2,2-Dichloropropane	25.0	33.8		ug/L		135	69 - 139
1,1-Dichloropropene	25.0	26.2		ug/L		105	70 - 130
cis-1,3-Dichloropropene	25.0	28.2		ug/L		113	70 - 130
trans-1,3-Dichloropropene	25.0	27.8		ug/L		111	70 - 130
Ethylbenzene	25.0	25.3		ug/L		101	70 - 130
Hexachlorobutadiene	25.0	23.2		ug/L		93	76 - 145
2-Hexanone	25.0	26.0		ug/L		104	55 - 150
Iodomethane	25.0	29.5		ug/L		118	70 - 130
Isopropylbenzene	25.0	26.0		ug/L		104	88 - 141
4-Isopropyltoluene	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	27.8		ug/L		111	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.1		ug/L		92	64 - 142
Methyl tert-butyl ether	25.0	32.1		ug/L		129	70 - 130
Naphthalene	25.0	23.2		ug/L		93	78 - 143
N-Propylbenzene	25.0	25.7		ug/L		103	70 - 130

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

Lab Sample ID: LCS 550-58659/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	25.0	25.5		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.2		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	25.0	27.4		ug/L		110	70 - 130
Tetrachloroethene	25.0	24.0		ug/L		96	70 - 130
Toluene	25.0	25.6		ug/L		102	70 - 130
1,2,3-Trichlorobenzene	25.0	22.5		ug/L		90	79 - 139
1,2,4-Trichlorobenzene	25.0	21.5		ug/L		86	80 - 137
1,1,1-Trichloroethane	25.0	29.5		ug/L		118	71 - 131
1,1,2-Trichloroethane	25.0	27.1		ug/L		108	70 - 130
Trichloroethene	25.0	24.3		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	29.9		ug/L		120	69 - 150
1,2,3-Trichloropropane	25.0	24.6		ug/L		98	70 - 130
1,2,4-Trimethylbenzene	25.0	25.6		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	25.0	25.8		ug/L		103	70 - 130
Vinyl acetate	25.0	31.7		ug/L		127	67 - 148
Vinyl chloride	25.0	30.1		ug/L		121	65 - 137
Xylenes, Total	50.0	49.5		ug/L		99	70 - 130
Butadiene	25.0	30.3		ug/L		121	12 - 150
Hexane	25.0	29.8		ug/L		119	54 - 132
m-Xylene & p-Xylene	25.0	24.5		ug/L		98	70 - 130
o-Xylene	25.0	25.0		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*91*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*

Lab Sample ID: LCSD 550-58659/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	28.3		ug/L		113	38 - 150	23	35
Benzene	25.0	24.5		ug/L		98	70 - 130	5	20
Bromobenzene	25.0	25.2		ug/L		101	70 - 130	5	20
Chlorobromomethane	25.0	23.4		ug/L		94	70 - 130	19	20
Dichlorobromomethane	25.0	24.9		ug/L		99	70 - 130	10	20
Bromoform	25.0	22.1		ug/L		89	69 - 129	16	20
Bromomethane	25.0	25.0		ug/L		100	57 - 138	19	20
2-Butanone (MEK)	25.0	25.1		ug/L		100	53 - 150	15	35
n-Butylbenzene	25.0	25.4		ug/L		102	70 - 130	1	20
sec-Butylbenzene	25.0	24.8		ug/L		99	70 - 130	3	20
Carbon disulfide	25.0	25.5		ug/L		102	64 - 145	14	33
Carbon tetrachloride	25.0	25.9		ug/L		104	70 - 143	1	20
Chlorobenzene	25.0	23.9		ug/L		96	70 - 130	6	20
Chloroethane	25.0	23.5	R6	ug/L		94	66 - 131	21	20
Chloroform	25.0	24.3	R6	ug/L		97	70 - 130	21	20
Chloromethane	25.0	24.5		ug/L		98	56 - 129	16	20

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

Lab Sample ID: LCSD 550-58659/5
Matrix: Water
Analysis Batch: 58659

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130	3	20
4-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130	6	20
Chlorodibromomethane	25.0	24.7		ug/L		99	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	22.7		ug/L		91	63 - 146	12	22
Ethylene Dibromide	25.0	22.1		ug/L		88	70 - 130	11	20
Dibromomethane	25.0	24.5		ug/L		98	70 - 130	14	20
1,2-Dichlorobenzene	25.0	24.4		ug/L		98	70 - 130	6	20
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	70 - 130	6	20
1,4-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130	7	20
Dichlorodifluoromethane	25.0	24.9		ug/L		99	46 - 144	15	23
1,1-Dichloroethane	25.0	24.6		ug/L		98	70 - 130	20	20
1,2-Dichloroethane	25.0	25.1	R6	ug/L		101	66 - 139	21	20
1,1-Dichloroethene	25.0	25.0		ug/L		100	63 - 131	18	22
cis-1,2-Dichloroethene	25.0	23.6		ug/L		95	70 - 130	16	20
trans-1,2-Dichloroethene	25.0	24.9		ug/L		99	69 - 127	12	20
1,2-Dichloropropane	25.0	23.4		ug/L		94	70 - 130	11	20
1,3-Dichloropropane	25.0	23.0		ug/L		92	70 - 130	11	20
2,2-Dichloropropane	25.0	34.6		ug/L		138	69 - 139	2	20
1,1-Dichloropropene	25.0	24.2		ug/L		97	70 - 130	8	20
cis-1,3-Dichloropropene	25.0	26.6		ug/L		106	70 - 130	6	20
trans-1,3-Dichloropropene	25.0	23.7		ug/L		95	70 - 130	16	20
Ethylbenzene	25.0	24.3		ug/L		97	70 - 130	4	20
Hexachlorobutadiene	25.0	22.9		ug/L		92	76 - 145	1	20
2-Hexanone	25.0	22.0		ug/L		88	55 - 150	17	35
Iodomethane	25.0	25.4		ug/L		102	70 - 130	15	20
Isopropylbenzene	25.0	25.0		ug/L		100	88 - 141	4	20
4-Isopropyltoluene	25.0	23.7		ug/L		95	70 - 130	6	20
Methylene Chloride	25.0	22.9		ug/L		92	63 - 128	19	21
4-Methyl-2-pentanone (MIBK)	25.0	22.5		ug/L		90	64 - 142	3	25
Methyl tert-butyl ether	25.0	25.8	R6	ug/L		103	70 - 130	22	20
Naphthalene	25.0	20.7		ug/L		83	78 - 143	11	20
N-Propylbenzene	25.0	25.4		ug/L		102	70 - 130	1	20
Styrene	25.0	24.4		ug/L		97	70 - 130	4	20
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	10	20
1,1,2,2-Tetrachloroethane	25.0	23.7		ug/L		95	70 - 130	15	20
Tetrachloroethene	25.0	24.0		ug/L		96	70 - 130	0	20
Toluene	25.0	23.8		ug/L		95	70 - 130	7	20
1,2,3-Trichlorobenzene	25.0	21.7		ug/L		87	79 - 139	4	20
1,2,4-Trichlorobenzene	25.0	21.0		ug/L		84	80 - 137	2	20
1,1,1-Trichloroethane	25.0	26.1		ug/L		104	71 - 131	12	20
1,1,2-Trichloroethane	25.0	24.9		ug/L		100	70 - 130	8	20
Trichloroethene	25.0	22.9		ug/L		92	70 - 130	6	20
Trichlorofluoromethane	25.0	26.5		ug/L		106	69 - 150	12	22
1,2,3-Trichloropropane	25.0	22.4		ug/L		89	70 - 130	10	20
1,2,4-Trimethylbenzene	25.0	24.5		ug/L		98	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	24.6		ug/L		99	70 - 130	5	20
Vinyl acetate	25.0	25.4		ug/L		102	67 - 148	22	22
Vinyl chloride	25.0	24.9		ug/L		100	65 - 137	19	20

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

Lab Sample ID: LCSD 550-58659/5
Matrix: Water
Analysis Batch: 58659

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total			50.0	49.6		ug/L		99	70 - 130	0	20
Butadiene			25.0	24.6		ug/L		99	12 - 150	21	35
Hexane			25.0	26.6		ug/L		106	54 - 132	11	28
m-Xylene & p-Xylene			25.0	24.6		ug/L		98	70 - 130	0	20
o-Xylene			25.0	25.0		ug/L		100	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*77*		*70 - 130*
Toluene-d8 (Surr)	*75*		*70 - 130*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: 550-41183-1 MS
Matrix: Water
Analysis Batch: 58659

Client Sample ID: IRA-2-030615
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	20.6		ug/L		82	29 - 139
Benzene	ND	E8	25.0	23.8		ug/L		95	68 - 131
Bromobenzene	ND	E8	25.0	23.1		ug/L		92	70 - 130
Chlorobromomethane	ND	E8	25.0	22.9		ug/L		92	64 - 132
Dichlorobromomethane	ND	E8	25.0	24.6		ug/L		98	63 - 138
Bromoform	ND	E8	25.0	23.6		ug/L		94	60 - 128
Bromomethane	ND	E8	25.0	24.1		ug/L		96	47 - 144
2-Butanone (MEK)	ND	E8	25.0	21.9		ug/L		88	31 - 143
n-Butylbenzene	ND	E8	25.0	24.4		ug/L		97	69 - 140
sec-Butylbenzene	ND	E8	25.0	24.0		ug/L		96	72 - 136
Carbon disulfide	ND	E8	25.0	24.9		ug/L		99	45 - 150
Carbon tetrachloride	ND	E8	25.0	24.1		ug/L		96	65 - 147
Chlorobenzene	ND	E8	25.0	21.9		ug/L		88	70 - 130
Chloroethane	ND	E8 R6	25.0	22.9		ug/L		92	57 - 139
Chloroform	ND	E8 R6	25.0	25.1		ug/L		100	63 - 131
Chloromethane	0.21	E4	25.0	23.4		ug/L		94	47 - 134
2-Chlorotoluene	ND	E8	25.0	24.4		ug/L		97	71 - 131
4-Chlorotoluene	ND	E8	25.0	24.0		ug/L		96	70 - 130
Chlorodibromomethane	ND	E8	25.0	22.4		ug/L		89	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	21.0		ug/L		84	53 - 145
Ethylene Dibromide	ND	E8	25.0	21.3		ug/L		85	70 - 130
Dibromomethane	ND	E8	25.0	24.3		ug/L		97	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	23.3		ug/L		93	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	24.0		ug/L		96	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	23.6		ug/L		95	70 - 130
Dichlorodifluoromethane	0.31	E4	25.0	23.1		ug/L		91	40 - 148
1,1-Dichloroethane	ND	E8	25.0	25.3		ug/L		101	62 - 130
1,2-Dichloroethane	ND	E8 R6	25.0	24.7		ug/L		99	54 - 147
1,1-Dichloroethene	0.73		25.0	25.4		ug/L		99	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	24.1		ug/L		96	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	24.2		ug/L		97	62 - 131
1,2-Dichloropropane	ND	E8	25.0	24.0		ug/L		96	68 - 126

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

Lab Sample ID: 550-41183-1 MS
Matrix: Water
Analysis Batch: 58659

Client Sample ID: IRA-2-030615
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	ND	E8	25.0	22.6		ug/L		90	68 - 129
2,2-Dichloropropane	ND	E8	25.0	30.7		ug/L		123	60 - 146
1,1-Dichloropropene	ND	E8	25.0	25.2		ug/L		101	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	23.5		ug/L		94	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	24.2		ug/L		97	58 - 136
Ethylbenzene	ND	E8	25.0	22.7		ug/L		91	74 - 134
Hexachlorobutadiene	ND	E8	25.0	23.2		ug/L		93	69 - 150
2-Hexanone	ND	E8	25.0	16.9		ug/L		68	40 - 142
Iodomethane	ND	E8	25.0	23.7		ug/L		95	53 - 150
Isopropylbenzene	ND	E8	25.0	24.1		ug/L		96	80 - 146
4-Isopropyltoluene	ND	E8	25.0	23.9		ug/L		96	70 - 133
Methylene Chloride	ND	E8	25.0	22.6		ug/L		90	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	22.3		ug/L		89	52 - 143
Methyl tert-butyl ether	ND	E8 R6	25.0	25.7		ug/L		103	67 - 138
Naphthalene	ND	E8	25.0	18.9		ug/L		75	67 - 146
N-Propylbenzene	ND	E8	25.0	24.4		ug/L		97	74 - 140
Styrene	ND	E8	25.0	22.3		ug/L		89	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	23.0		ug/L		92	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	23.6		ug/L		94	63 - 137
Tetrachloroethene	0.42	E4	25.0	23.4		ug/L		92	67 - 131
Toluene	ND	E8	25.0	23.5		ug/L		94	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	20.2		ug/L		81	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	19.4		ug/L		78	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	25.8		ug/L		103	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	25.2		ug/L		101	63 - 132
Trichloroethene	1.6		25.0	25.7		ug/L		96	66 - 132
Trichlorofluoromethane	ND	E8	25.0	25.9		ug/L		104	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	22.1		ug/L		88	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	23.2		ug/L		93	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	25.1		ug/L		100	66 - 137
Vinyl acetate	ND	E8	25.0	25.3		ug/L		101	47 - 150
Vinyl chloride	ND	E8	25.0	25.0		ug/L		100	55 - 146
Xylenes, Total	ND	E8	50.0	44.4		ug/L		89	68 - 131
Butadiene	ND	E8	25.0	26.0		ug/L		104	10 - 150
Hexane	ND	E8	25.0	29.7		ug/L		119	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	21.9		ug/L		87	58 - 138
o-Xylene	ND	E8	25.0	22.5		ug/L		90	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*76*		*70 - 130*
Toluene-d8 (Surr)	*78*		*70 - 130*
4-Bromofluorobenzene (Surr)	*69*	*N1*	*70 - 130*

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

Lab Sample ID: 550-41183-1 MSD
Matrix: Water
Analysis Batch: 58659

Client Sample ID: IRA-2-030615
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	24.2		ug/L		97	29 - 139	16	35
Benzene	ND	E8	25.0	25.1		ug/L		100	68 - 131	5	32
Bromobenzene	ND	E8	25.0	26.7		ug/L		107	70 - 130	14	28
Chlorobromomethane	ND	E8	25.0	25.2		ug/L		101	64 - 132	9	35
Dichlorobromomethane	ND	E8	25.0	27.2		ug/L		109	63 - 138	10	31
Bromoform	ND	E8	25.0	25.7		ug/L		103	60 - 128	9	31
Bromomethane	ND	E8	25.0	26.8		ug/L		107	47 - 144	10	35
2-Butanone (MEK)	ND	E8	25.0	26.6		ug/L		107	31 - 143	19	35
n-Butylbenzene	ND	E8	25.0	26.3		ug/L		105	69 - 140	8	32
sec-Butylbenzene	ND	E8	25.0	26.9		ug/L		108	72 - 136	11	33
Carbon disulfide	ND	E8	25.0	27.6		ug/L		111	45 - 150	11	35
Carbon tetrachloride	ND	E8	25.0	25.8		ug/L		103	65 - 147	7	35
Chlorobenzene	ND	E8	25.0	26.0		ug/L		104	70 - 130	17	30
Chloroethane	ND	E8 R6	25.0	26.0		ug/L		104	57 - 139	13	35
Chloroform	ND	E8 R6	25.0	27.2		ug/L		109	63 - 131	8	33
Chloromethane	0.21	E4	25.0	24.5		ug/L		98	47 - 134	4	35
2-Chlorotoluene	ND	E8	25.0	25.5		ug/L		102	71 - 131	5	29
4-Chlorotoluene	ND	E8	25.0	23.4		ug/L		94	70 - 130	2	28
Chlorodibromomethane	ND	E8	25.0	26.1		ug/L		104	65 - 134	16	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	22.8		ug/L		91	53 - 145	8	35
Ethylene Dibromide	ND	E8	25.0	25.3		ug/L		101	70 - 130	17	33
Dibromomethane	ND	E8	25.0	27.6		ug/L		110	66 - 136	13	35
1,2-Dichlorobenzene	ND	E8	25.0	25.7		ug/L		103	70 - 130	10	27
1,3-Dichlorobenzene	ND	E8	25.0	26.4		ug/L		106	70 - 130	9	28
1,4-Dichlorobenzene	ND	E8	25.0	26.0		ug/L		104	70 - 130	9	26
Dichlorodifluoromethane	0.31	E4	25.0	26.9		ug/L		106	40 - 148	15	35
1,1-Dichloroethane	ND	E8	25.0	26.8		ug/L		107	62 - 130	6	34
1,2-Dichloroethane	ND	E8 R6	25.0	27.2		ug/L		109	54 - 147	10	35
1,1-Dichloroethene	0.73		25.0	28.4		ug/L		111	57 - 137	11	35
cis-1,2-Dichloroethene	ND	E8	25.0	26.0		ug/L		104	65 - 127	8	34
trans-1,2-Dichloroethene	ND	E8	25.0	27.2		ug/L		109	62 - 131	12	35
1,2-Dichloropropane	ND	E8	25.0	25.7		ug/L		103	68 - 126	6	32
1,3-Dichloropropane	ND	E8	25.0	26.3		ug/L		105	68 - 129	15	33
2,2-Dichloropropane	ND	E8	25.0	35.5		ug/L		142	60 - 146	14	35
1,1-Dichloropropene	ND	E8	25.0	27.3		ug/L		109	64 - 134	8	34
cis-1,3-Dichloropropene	ND	E8	25.0	28.3		ug/L		113	63 - 135	18	35
trans-1,3-Dichloropropene	ND	E8	25.0	25.3		ug/L		101	58 - 136	4	35
Ethylbenzene	ND	E8	25.0	27.3		ug/L		109	74 - 134	19	32
Hexachlorobutadiene	ND	E8	25.0	25.5		ug/L		102	69 - 150	10	32
2-Hexanone	ND	E8	25.0	19.2		ug/L		77	40 - 142	13	35
Iodomethane	ND	E8	25.0	27.1		ug/L		108	53 - 150	13	35
Isopropylbenzene	ND	E8	25.0	27.3		ug/L		109	80 - 146	13	32
4-Isopropyltoluene	ND	E8	25.0	26.6		ug/L		106	70 - 133	10	32
Methylene Chloride	ND	E8	25.0	24.2		ug/L		97	55 - 133	7	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	21.3		ug/L		85	52 - 143	5	35
Methyl tert-butyl ether	ND	E8 R6	25.0	28.4		ug/L		113	67 - 138	10	21
Naphthalene	ND	E8	25.0	22.4		ug/L		89	67 - 146	17	29
N-Propylbenzene	ND	E8	25.0	27.4		ug/L		110	74 - 140	12	32

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

Lab Sample ID: 550-41183-1 MSD — **Client Sample ID: IRA-2-030615**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58659

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Styrene	ND	E8	25.0	25.8		ug/L		103	43 - 144	15	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	26.1		ug/L		105	70 - 130	13	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	26.2		ug/L		105	63 - 137	11	32
Tetrachloroethene	0.42	E4	25.0	27.5		ug/L		108	67 - 131	16	31
Toluene	ND	E8	25.0	25.9		ug/L		103	65 - 138	9	33
1,2,3-Trichlorobenzene	ND	E8	25.0	23.3		ug/L		93	74 - 139	14	26
1,2,4-Trichlorobenzene	ND	E8	25.0	23.5		ug/L		94	74 - 138	19	26
1,1,1-Trichloroethane	ND	E8	25.0	27.1		ug/L		108	64 - 138	5	35
1,1,2-Trichloroethane	ND	E8	25.0	26.1		ug/L		105	63 - 132	4	35
Trichloroethene	1.6		25.0	27.8		ug/L		105	66 - 132	8	29
Trichlorofluoromethane	ND	E8	25.0	26.9		ug/L		107	62 - 150	4	35
1,2,3-Trichloropropane	ND	E8	25.0	26.0		ug/L		104	68 - 130	16	32
1,2,4-Trimethylbenzene	ND	E8	25.0	26.8		ug/L		107	63 - 135	15	31
1,3,5-Trimethylbenzene	ND	E8	25.0	27.2		ug/L		109	66 - 137	8	30
Vinyl acetate	ND	E8	25.0	26.6		ug/L		107	47 - 150	5	35
Vinyl chloride	ND	E8	25.0	26.7		ug/L		107	55 - 146	7	35
Xylenes, Total	ND	E8	50.0	53.4		ug/L		107	68 - 131	18	31
Butadiene	ND	E8	25.0	28.3		ug/L		113	10 - 150	9	35
Hexane	ND	E8	25.0	29.9		ug/L		120	46 - 139	1	35
m-Xylene & p-Xylene	ND	E8	25.0	26.2		ug/L		105	58 - 138	18	29
o-Xylene	ND	E8	25.0	27.2		ug/L		109	66 - 137	19	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*78*		*70 - 130*
Toluene-d8 (Surr)	*80*		*70 - 130*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58096/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58096

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/07/15 07:18	1
Chloride	ND	E8	2.0	0.29	mg/L			03/07/15 07:18	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/07/15 07:18	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/07/15 07:18	1

Lab Sample ID: LCS 550-58096/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58096

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	3.96		mg/L		99	90 - 110
Chloride	20.0	19.7		mg/L		99	90 - 110
Nitrate as N	4.00	4.02		mg/L		100	90 - 110
Sulfate	20.0	20.6		mg/L		103	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-58096/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58096

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			4.00	3.96		mg/L		99	90 - 110	0	20
Chloride			20.0	19.7		mg/L		99	90 - 110	0	20
Nitrate as N			4.00	4.01		mg/L		100	90 - 110	0	20
Sulfate			20.0	20.6		mg/L		103	90 - 110	0	20

Lab Sample ID: 550-41183-1 MS — **Client Sample ID: IRA-2-030615**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58096

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide	0.47	E4	4.00	4.50		mg/L		101	80 - 120		
Chloride	130	E2 M3	20.0	135	E2 M3	mg/L		45	80 - 120		
Nitrate as N	7.5		4.00	11.4		mg/L		96	80 - 120		
Sulfate	190	E2 M3	20.0	203	E2 M3	mg/L		44	80 - 120		

Lab Sample ID: 550-41183-1 MSD — **Client Sample ID: IRA-2-030615**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58096

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.47	E4	4.00	4.69		mg/L		105	80 - 120	4	20
Chloride	130	E2 M3	20.0	135	E2 M3	mg/L		48	80 - 120	0	20
Nitrate as N	7.5		4.00	11.6		mg/L		101	80 - 120	2	20
Sulfate	190	E2 M3	20.0	204	E2 M3	mg/L		46	80 - 120	0	20

Lab Sample ID: MB 550-58402/66 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/12/15 10:51	1
Chloride	ND	E8	2.0	0.29	mg/L			03/12/15 10:51	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/12/15 10:51	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/12/15 10:51	1

Lab Sample ID: LCS 550-58402/67 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			4.00	3.96		mg/L		99	90 - 110		
Chloride			20.0	19.7		mg/L		98	90 - 110		
Nitrate as N			4.00	4.03		mg/L		101	90 - 110		
Sulfate			20.0	20.4		mg/L		102	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-58402/68 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	3.88		mg/L		97	90 - 110	2	20
Chloride	20.0	19.8		mg/L		99	90 - 110	1	20
Nitrate as N	4.00	4.02		mg/L		100	90 - 110	0	20
Sulfate	20.0	20.5		mg/L		102	90 - 110	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58078/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58348 — **Prep Batch: 58078**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/09/15 12:10	03/11/15 18:02	1
Calcium	ND	E8	2.0	0.014	mg/L		03/09/15 12:10	03/11/15 18:02	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/09/15 12:10	03/11/15 18:02	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/09/15 12:10	03/11/15 18:02	1
Potassium	ND	E8	0.50	0.067	mg/L		03/09/15 12:10	03/11/15 18:02	1
Sodium	ND	E8	0.50	0.15	mg/L		03/09/15 12:10	03/11/15 18:02	1

Lab Sample ID: LCS 550-58078/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58348 — **Prep Batch: 58078**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.956		mg/L		96	85 - 115
Calcium	21.0	21.3		mg/L		102	85 - 115
Chromium	1.00	0.981		mg/L		98	85 - 115
Magnesium	21.0	20.7		mg/L		99	85 - 115
Potassium	20.0	19.1		mg/L		95	85 - 115
Sodium	20.0	19.7		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-58078/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58348 — **Prep Batch: 58078**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.974		mg/L		97	85 - 115	2	20
Calcium	21.0	21.3		mg/L		101	85 - 115	0	20
Chromium	1.00	1.00		mg/L		100	85 - 115	2	20
Magnesium	21.0	20.7		mg/L		99	85 - 115	0	20
Potassium	20.0	19.1		mg/L		95	85 - 115	0	20
Sodium	20.0	19.6		mg/L		98	85 - 115	0	20

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-58624/35 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/13/15 23:25	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/13/15 23:25	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/13/15 23:25	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/13/15 23:25	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/13/15 23:25	1

Lab Sample ID: LCS 550-58624/34 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58624

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			250	247		mg/L		99	90 - 110		

Lab Sample ID: LCSD 550-58624/48 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58624

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	249		mg/L		100	90 - 110	1	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

GC/MS VOA

Analysis Batch: 58455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-1	IRA-2-030615	Total/NA	Water	8260B	
550-41183-2	IRA-41-030615	Total/NA	Water	8260B	
550-41183-3	TB	Total/NA	Water	8260B	
LCS 550-58455/10	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58455/11	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58455/9	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 58575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-3	TB	Total/NA	Water	8260B	
LCS 550-58575/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58575/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58575/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 58659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-1	IRA-2-030615	Total/NA	Water	8260B	
550-41183-1 MS	IRA-2-030615	Total/NA	Water	8260B	
550-41183-1 MSD	IRA-2-030615	Total/NA	Water	8260B	
550-41183-2	IRA-41-030615	Total/NA	Water	8260B	
LCS 550-58659/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58659/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58659/6	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-1	IRA-2-030615	Total/NA	Water	300.0	
550-41183-1 MS	IRA-2-030615	Total/NA	Water	300.0	
550-41183-1 MSD	IRA-2-030615	Total/NA	Water	300.0	
550-41183-2	IRA-41-030615	Total/NA	Water	300.0	
LCS 550-58096/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58096/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58096/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 58402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-2	IRA-41-030615	Total/NA	Water	300.0	
LCS 550-58402/67	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58402/68	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58402/66	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 58488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-1	IRA-2-030615	Total/NA	Water	300.0	

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Metals

Prep Batch: 58078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-1	IRA-2-030615	Total/NA	Water	200.7	
550-41183-2	IRA-41-030615	Total/NA	Water	200.7	
LCS 550-58078/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58078/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58078/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-1	IRA-2-030615	Total/NA	Water	200.7 Rev 4.4	58078
550-41183-2	IRA-41-030615	Total/NA	Water	200.7 Rev 4.4	58078
LCS 550-58078/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58078
LCSD 550-58078/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58078
MB 550-58078/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58078

General Chemistry

Analysis Batch: 58624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41183-1	IRA-2-030615	Total/NA	Water	SM 2320B	
550-41183-2	IRA-41-030615	Total/NA	Water	SM 2320B	
LCS 550-58624/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-58624/48	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-58624/35	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Client Sample ID: IRA-2-030615

Lab Sample ID: 550-41183-1

Date Collected: 03/06/15 13:35
Matrix: Water
Date Received: 03/06/15 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58659	03/17/15 11:44	UT	TAL PHX
Total/NA	Analysis	8260B		1	58455	03/13/15 22:30	UT	TAL PHX
Total/NA	Analysis	300.0		1	58096	03/07/15 12:57	AMR	TAL PHX
Total/NA	Analysis	300.0		10	58488	03/13/15 02:34	YAF	TAL PHX
Total/NA	Prep	200.7			58078	03/09/15 12:10	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58348	03/11/15 18:41	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58624	03/14/15 03:24	CDC	TAL PHX

Client Sample ID: IRA-41-030615

Lab Sample ID: 550-41183-2

Date Collected: 03/06/15 10:45
Matrix: Water
Date Received: 03/06/15 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58659	03/17/15 13:17	UT	TAL PHX
Total/NA	Analysis	8260B		1	58455	03/13/15 23:01	UT	TAL PHX
Total/NA	Analysis	300.0		1	58096	03/07/15 13:52	AMR	TAL PHX
Total/NA	Analysis	300.0		10	58402	03/12/15 12:23	YAF	TAL PHX
Total/NA	Prep	200.7			58078	03/09/15 12:10	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58348	03/11/15 18:44	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58624	03/14/15 03:36	CDC	TAL PHX

Client Sample ID: TB

Lab Sample ID: 550-41183-3

Date Collected: 03/06/15 13:36
Matrix: Water
Date Received: 03/06/15 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58575	03/16/15 22:08	NBL	TAL PHX
Total/NA	Analysis	8260B		1	58455	03/13/15 16:35	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41183-1
SDG: 1420142030.5.2

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Chain of Custody Record

065121

550-41183

TestAmerica Phoenix
4625 E. Cotton Center Blvd.
Suite 184
Phoenix, AZ 85040
Phone: 602.437.3340

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact			
Company Name: AMEC	Project Manager: Alvaro Gil	Site Contact: Brandon Combs	Date: 3/6/15
Address: 4000 E Washington	Tel/Fax: 480-285-4310	Lab Contact:	Carrier:
City/State/Zip: Phoenix, AZ 85034	Analysis Turnaround Time		
Phone:	☐ CALENDAR DAYS ☐ WORKING DAYS		
Fax:	TAT if different from Below Standard		
Project Name: Miracle Mile	☐ 2 weeks		
Site: Tucson, AZ	☐ 1 week		
PO# 1420142030.5.2	☐ 2 days		
	☐ 1 day		

COC No: ___ of ___ COCs

Sampler:

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	8260 LL	200.7 Total Chromium	6N Isotopes	6H Isotopes	cations (K, Na, Ca, Mg, boron)	anions (Cl, SO4, NO3, Bromide, Alkalinity)	Sample Specific Notes:
IRA-2-030615	3/6/15	1335	G	Aq	3			X						HCl (persv)
IRA-2-030615	3/6/15	1335	G	Aq	1				X					HNO3 (persv)
IRA-2-030615	3/6/15	1335	G	Aq	1					X			X	
IRA-2-030615	3/6/15	1335	G	Aq	1						X	X		HNO3
IRA-41-030615	3/6/15	1045	G	Aq	1				X					HNO3 (persv)
IRA-41-030615	3/6/15	1045	G	Aq	1						X	X	X	HNO3
IRA-41-030615	3/6/15	1045	G	Aq	1					X		X		
IRA-41-030615	3/6/15	1045	G	Aq	3			X						HCl (persv)
TB	3/6/15	1336	G	Aq	1			X						
	3-6-1													

Preserva =NaOH; 6= Other _____

Possible
Are any s 550-41183 Chain of Custody
Comments

List any EPA Waste Codes for the sample in the

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ___ Months

Special Instructions/QC Requirements & Comments:

1.5°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ___ Corr'd: ___ | Therm ID No.: ___

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	AMEC	3/6/15 1440		TA	3-6-15 1440
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TA	3-6-15 1515			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
					3-7-15 1230

2.1

3/20/2015

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41183-1
SDG Number: 1420142030.5.2

Login Number: 41183
List Number: 1
Creator: Gaska, Kristinena

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41239-1
Client Project/Site: Miracle Mile 1420142030.9.3

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/20/2015 4:11:08 PM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D2	Sample required dilution due to high concentration of analyte.
D1	Sample required dilution due to matrix.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Job ID: 550-41239-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41239-1

Comments
No additional comments.

Receipt
The samples were received on 3/10/2015 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.9º C and 1.9º C.

HPLC/IC
Method(s) 300.0: Initial analysis of Nitrate for the following samples was within the specified holding time, however the result exceeded the high end of the calibration curve and therefore cannot be reported; IRA-16--030915 (550-41239-4). Reanalysis at the required dilution was performed past the method specified holding time. The corresponding Nitrate sample data is qualified with a H2 flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41239-1	IRA-17-030915	Water	03/09/15 11:10	03/10/15 10:10
550-41239-2	IRA-22-030915	Water	03/09/15 12:38	03/10/15 10:10
550-41239-3	IRA-21--030915	Water	03/09/15 11:40	03/10/15 10:10
550-41239-4	IRA-16--030915	Water	03/09/15 12:10	03/10/15 10:10

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

Client Sample ID: IRA-17-030915 — Lab Sample ID: 550-41239-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	0.87		0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	210	D2	20	2.9	mg/L	10		300.0	Total/NA
Nitrate as N	24	D2	1.0	0.51	mg/L	10		300.0	Total/NA
Sulfate	430	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.39		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	220		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.036		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	40		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	8.6		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	200		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	300		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	300		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-22-030915 — Lab Sample ID: 550-41239-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	0.99	D1 E4	1.0	0.10	mg/L	2		300.0	Total/NA
Chloride	170	D2	4.0	0.58	mg/L	2		300.0	Total/NA
Nitrate as N	94	D2	1.0	0.51	mg/L	10		300.0	Total/NA
Sulfate	280	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.33		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	220		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.021		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	32		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.4		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	170		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	190		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	190		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-21--030915 — Lab Sample ID: 550-41239-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromide	1.4	D1	1.0	0.10	mg/L	2		300.0	Total/NA
Chloride	100	D2	4.0	0.58	mg/L	2		300.0	Total/NA
Nitrate as N	36	D2	0.20	0.10	mg/L	2		300.0	Total/NA
Sulfate	330	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.28		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	180		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.0074	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	26		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.7		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	120		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	220		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-16--030915 — Lab Sample ID: 550-41239-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	45	D2 H2	1.0	0.51	mg/L	10		300.0	Total/NA
Chromium	0.011		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Phoenix

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

Client Sample ID: IRA-17-030915

Lab Sample ID: 550-41239-1

Date Collected: 03/09/15 11:10
Matrix: Water
Date Received: 03/10/15 10:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.87		0.50	0.051	mg/L			03/10/15 17:41	1
Chloride	210	D2	20	2.9	mg/L			03/10/15 21:05	10
Nitrate as N	24	D2	1.0	0.51	mg/L			03/10/15 21:05	10
Sulfate	430	D2	20	2.1	mg/L			03/10/15 21:05	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.39		0.050	0.0049	mg/L		03/10/15 12:54	03/11/15 20:08	1
Calcium	220		2.0	0.014	mg/L		03/10/15 12:54	03/11/15 20:08	1
Chromium	0.036		0.010	0.00050	mg/L		03/10/15 12:54	03/11/15 20:08	1
Magnesium	40		2.0	0.017	mg/L		03/10/15 12:54	03/11/15 20:08	1
Potassium	8.6		0.50	0.067	mg/L		03/10/15 12:54	03/11/15 20:08	1
Sodium	200		0.50	0.15	mg/L		03/10/15 12:54	03/11/15 20:08	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	300		6.0	6.0	mg/L			03/14/15 05:00	1
Bicarbonate Alkalinity as CaCO3	300		6.0	6.0	mg/L			03/14/15 05:00	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:00	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 05:00	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:00	1

Client Sample ID: IRA-22-030915

Lab Sample ID: 550-41239-2

Date Collected: 03/09/15 12:38
Matrix: Water
Date Received: 03/10/15 10:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	0.99	D1 E4	1.0	0.10	mg/L			03/10/15 17:59	2
Chloride	170	D2	4.0	0.58	mg/L			03/10/15 17:59	2
Nitrate as N	94	D2	1.0	0.51	mg/L			03/10/15 22:55	10
Sulfate	280	D2	20	2.1	mg/L			03/10/15 22:55	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.33		0.050	0.0049	mg/L		03/10/15 12:54	03/11/15 20:10	1
Calcium	220		2.0	0.014	mg/L		03/10/15 12:54	03/11/15 20:10	1
Chromium	0.021		0.010	0.00050	mg/L		03/10/15 12:54	03/11/15 20:10	1
Magnesium	32		2.0	0.017	mg/L		03/10/15 12:54	03/11/15 20:10	1
Potassium	4.4		0.50	0.067	mg/L		03/10/15 12:54	03/11/15 20:10	1
Sodium	170		0.50	0.15	mg/L		03/10/15 12:54	03/11/15 20:10	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	190		6.0	6.0	mg/L			03/14/15 05:11	1
Bicarbonate Alkalinity as CaCO3	190		6.0	6.0	mg/L			03/14/15 05:11	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:11	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 05:11	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:11	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

Client Sample ID: IRA-21--030915

Lab Sample ID: 550-41239-3

Date Collected: 03/09/15 11:40
Matrix: Water
Date Received: 03/10/15 10:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	1.4	D1	1.0	0.10	mg/L			03/10/15 18:18	2
Chloride	100	D2	4.0	0.58	mg/L			03/10/15 18:18	2
Nitrate as N	36	D2	0.20	0.10	mg/L			03/10/15 18:18	2
Sulfate	330	D2	20	2.1	mg/L			03/10/15 23:14	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.28		0.050	0.0049	mg/L		03/10/15 12:54	03/11/15 20:13	1
Calcium	180		2.0	0.014	mg/L		03/10/15 12:54	03/11/15 20:13	1
Chromium	0.0074	E4	0.010	0.00050	mg/L		03/10/15 12:54	03/11/15 20:13	1
Magnesium	26		2.0	0.017	mg/L		03/10/15 12:54	03/11/15 20:13	1
Potassium	3.7		0.50	0.067	mg/L		03/10/15 12:54	03/11/15 20:13	1
Sodium	120		0.50	0.15	mg/L		03/10/15 12:54	03/11/15 20:13	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	220		6.0	6.0	mg/L			03/14/15 05:23	1
Bicarbonate Alkalinity as CaCO3	220		6.0	6.0	mg/L			03/14/15 05:23	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:23	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 05:23	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:23	1

Client Sample ID: IRA-16--030915

Lab Sample ID: 550-41239-4

Date Collected: 03/09/15 12:10
Matrix: Water
Date Received: 03/10/15 10:10

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	45	D2 H2	1.0	0.51	mg/L			03/14/15 04:57	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.011		0.010	0.00050	mg/L		03/10/15 12:54	03/11/15 20:22	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58305/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58305

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/10/15 15:11	1
Chloride	ND	E8	2.0	0.29	mg/L			03/10/15 15:11	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/10/15 15:11	1
Sulfate	0.215	E4	2.0	0.21	mg/L			03/10/15 15:11	1

Lab Sample ID: LCS 550-58305/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58305

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	3.85		mg/L		96	90 - 110
Chloride	20.0	19.7		mg/L		98	90 - 110
Nitrate as N	4.00	4.01		mg/L		100	90 - 110
Sulfate	20.0	20.5		mg/L		102	90 - 110

Lab Sample ID: LCSD 550-58305/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58305

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	3.84		mg/L		96	90 - 110	0	20
Chloride	20.0	19.7		mg/L		98	90 - 110	0	20
Nitrate as N	4.00	4.01		mg/L		100	90 - 110	0	20
Sulfate	20.0	20.5		mg/L		103	90 - 110	0	20

Lab Sample ID: MB 550-58593/25 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58593

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/13/15 22:12	1

Lab Sample ID: LCS 550-58593/26 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58593

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.03		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-58593/27 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58593

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.02		mg/L		101	90 - 110	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58203/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58349 — **Prep Batch: 58203**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/10/15 12:54	03/11/15 19:38	1
Calcium	ND	E8	2.0	0.014	mg/L		03/10/15 12:54	03/11/15 19:38	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/10/15 12:54	03/11/15 19:38	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/10/15 12:54	03/11/15 19:38	1
Potassium	ND	E8	0.50	0.067	mg/L		03/10/15 12:54	03/11/15 19:38	1
Sodium	ND	E8	0.50	0.15	mg/L		03/10/15 12:54	03/11/15 19:38	1

Lab Sample ID: LCS 550-58203/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58349 — **Prep Batch: 58203**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.979		mg/L		98	85 - 115
Calcium	21.0	21.1		mg/L		100	85 - 115
Chromium	1.00	1.00		mg/L		100	85 - 115
Magnesium	21.0	20.9		mg/L		99	85 - 115
Potassium	20.0	19.2		mg/L		96	85 - 115
Sodium	20.0	19.9		mg/L		99	85 - 115

Lab Sample ID: LCSD 550-58203/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58349 — **Prep Batch: 58203**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.969		mg/L		97	85 - 115	1	20
Calcium	21.0	21.2		mg/L		101	85 - 115	0	20
Chromium	1.00	0.993		mg/L		99	85 - 115	1	20
Magnesium	21.0	20.8		mg/L		99	85 - 115	0	20
Potassium	20.0	19.3		mg/L		96	85 - 115	0	20
Sodium	20.0	19.8		mg/L		99	85 - 115	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-58624/63 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 550-58624/62
Matrix: Water
Analysis Batch: 58624

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			250	249		mg/L		100	90 - 110		

Lab Sample ID: LCSD 550-58624/76
Matrix: Water
Analysis Batch: 58624

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	247		mg/L		99	90 - 110	1	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

HPLC/IC

Analysis Batch: 58305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41239-1	IRA-17-030915	Total/NA	Water	300.0	
550-41239-1	IRA-17-030915	Total/NA	Water	300.0	
550-41239-2	IRA-22-030915	Total/NA	Water	300.0	
550-41239-2	IRA-22-030915	Total/NA	Water	300.0	
550-41239-3	IRA-21--030915	Total/NA	Water	300.0	
550-41239-3	IRA-21--030915	Total/NA	Water	300.0	
LCS 550-58305/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58305/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58305/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 58593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41239-4	IRA-16--030915	Total/NA	Water	300.0	
LCS 550-58593/26	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58593/27	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58593/25	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 58203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41239-1	IRA-17-030915	Total/NA	Water	200.7	
550-41239-2	IRA-22-030915	Total/NA	Water	200.7	
550-41239-3	IRA-21--030915	Total/NA	Water	200.7	
550-41239-4	IRA-16--030915	Total/NA	Water	200.7	
LCS 550-58203/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58203/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58203/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41239-1	IRA-17-030915	Total/NA	Water	200.7 Rev 4.4	58203
550-41239-2	IRA-22-030915	Total/NA	Water	200.7 Rev 4.4	58203
550-41239-3	IRA-21--030915	Total/NA	Water	200.7 Rev 4.4	58203
550-41239-4	IRA-16--030915	Total/NA	Water	200.7 Rev 4.4	58203
LCS 550-58203/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58203
LCSD 550-58203/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58203
MB 550-58203/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58203

General Chemistry

Analysis Batch: 58624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41239-1	IRA-17-030915	Total/NA	Water	SM 2320B	
550-41239-2	IRA-22-030915	Total/NA	Water	SM 2320B	
550-41239-3	IRA-21--030915	Total/NA	Water	SM 2320B	
LCS 550-58624/62	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-58624/76	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-58624/63	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

Client Sample ID: IRA-17-030915 — Lab Sample ID: 550-41239-1

Date Collected: 03/09/15 11:10 — **Matrix: Water**
Date Received: 03/10/15 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	58305	03/10/15 17:41	YAF	TAL PHX
Total/NA	Analysis	300.0		10	58305	03/10/15 21:05	YAF	TAL PHX
Total/NA	Prep	200.7			58203	03/10/15 12:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58349	03/11/15 20:08	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58624	03/14/15 05:00	CDC	TAL PHX

Client Sample ID: IRA-22-030915 — Lab Sample ID: 550-41239-2

Date Collected: 03/09/15 12:38 — **Matrix: Water**
Date Received: 03/10/15 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	58305	03/10/15 17:59	YAF	TAL PHX
Total/NA	Analysis	300.0		10	58305	03/10/15 22:55	YAF	TAL PHX
Total/NA	Prep	200.7			58203	03/10/15 12:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58349	03/11/15 20:10	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58624	03/14/15 05:11	CDC	TAL PHX

Client Sample ID: IRA-21--030915 — Lab Sample ID: 550-41239-3

Date Collected: 03/09/15 11:40 — **Matrix: Water**
Date Received: 03/10/15 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	58305	03/10/15 18:18	YAF	TAL PHX
Total/NA	Analysis	300.0		10	58305	03/10/15 23:14	YAF	TAL PHX
Total/NA	Prep	200.7			58203	03/10/15 12:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58349	03/11/15 20:13	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58624	03/14/15 05:23	CDC	TAL PHX

Client Sample ID: IRA-16--030915 — Lab Sample ID: 550-41239-4

Date Collected: 03/09/15 12:10 — **Matrix: Water**
Date Received: 03/10/15 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	58593	03/14/15 04:57	YAF	TAL PHX
Total/NA	Prep	200.7			58203	03/10/15 12:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58349	03/11/15 20:22	AJC	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

Laboratory: TestAmerica Phoenix

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile 1420142030.9.3

TestAmerica Job ID: 550-41239-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

550-41239

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page _____ of _____

3/20/2015

Client Name/Address: AMEC 4600 E Washington Phoenix 85034

Project/PO Number: Miracle Mile 1420142030.5.3

Project Manager: Allang Gu

Phone Number: 480.285.4310

Sampler: Combs/Sargent

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	2320B+300 Alkalinity+anions	200.7 Total Chromium	200.7 metals	8260 LL	300.0 Nitrate					Special Instructions
IRA-17-030915 -01	Aq	500ml	1	3/9/15	1110	none	X									ADEQ: 61481
IRA-17-030915 -01	↓	250ml	1	↓	1110	HNO3		X								↓
IRA-17-030915 -01	↓	250ml	1	↓	1110	HNO3			X							↓
IRA-17-030915 -01	↓	40ml	3	↓	1110	HCL				(X)						↓
IRA-22-030915 -02	Aq	500ml	1	3/9/15	1238	none	X									ADEQ: 61476
IRA-22-030915 -02	Aq	250ml	1	3/9/15	1238	HNO3		X	X	(X)						ADEQ: 61476
IRA-21-030915 -03	Aq	250ml/40ml/500ml	7	3/9/15	1140	HNO3/none/HCl	X	X	X	(X)						ADEQ: 61477
IRA-16-030915 -04	Aq	40ml/250ml/500ml	5	3/9/15	1210	HNO3/HCl/none		X		(X)	X					ADEQ: 61482
TB -05	Aq	40ml	1	3/9/15	1240					(X)						

(X) Cancel Per A. Gu 3/10/15

550-41239 Chain of Custody

Relinquished By	Date/Time	Received By	Date/Time
[signature]	3/9/15 1415	[signature]	3-9-15 1415
[signature]	3-9-15 1530		
FedEx		Received in Lab By: [signature]	3/10/15 10:10

Turnaround Time: (Check)
same day _____ 72 hours _____
24 hours _____ 5 days _____
48 hours _____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

1.9

1.9 cs. phl

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41239-1

Login Number: 41239

List Source: TestAmerica Phoenix

List Number: 1

Creator: Gaska, Kristinena

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41327-1
Client Project/Site: Miracle Mile WQARF 1420142030.5.3

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/28/2015 5:52:46 PM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
N1	See case narrative.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
V1	CCV recovery was above method acceptance limits. The analyte was not detected in the sample.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
B1	Target analyte detected in method blank at or above the method reporting limit.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-41327-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41327-1

Comments
No additional comments.

Receipt
The samples were received on 3/10/2015 2:28 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.4º C and 2.6º C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for 4-bromofluoromethane in the CCVIS Recovered low. All other recoveries for 4-bromofluoromethane in the batch QC and samples where within acceptance limits. The data was not impacted and the CCVIS will be flagged with an N1 and reported, see batch 58543.

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 58543 recovered outisde control limits, low for the following analyte: 1,2,3-Trichlorobenzene. The laboratory control sample (LCS) as well as the matrix spike (MS) and matrix spike duplicate (MSD) for batch 58543 recovered within control limits and were not detected in the associated samples; therefore, the data has been reported with an N1 qualifier. See analytical batch 58543.

Method(s) 8260B: Surrogate recovery for 4-Bromofluorobenzene and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS will be flagged with an N1 and reported, see batch 58715.

Method(s) 8260B: The method blank for batch 58715 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, and Naphthalene above the reporting limit (RL).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41327-1	IRA-39-031015	Water	03/10/15 12:22	03/10/15 14:28
550-41327-2	IRA-33-031015	Water	03/10/15 08:25	03/10/15 14:28
550-41327-3	IRA-32-031015	Water	03/10/15 09:45	03/10/15 14:28
550-41327-4	IRA-4-031015	Water	03/10/15 13:55	03/10/15 14:28
550-41327-5	IRA-38-031015	Water	03/10/15 11:10	03/10/15 14:28
550-41327-6	TB	Water	03/10/15 12:23	03/10/15 14:28

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-39-031015 — Lab Sample ID: 550-41327-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	3.5		0.50	0.15	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.4		0.50	0.23	ug/L	1		8260B	Total/NA
Tetrachloroethene	4.3		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	22		0.50	0.24	ug/L	1		8260B	Total/NA
Bromide	0.61		0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	140	D2	20	2.9	mg/L	10		300.0	Total/NA
Nitrate as N	11		0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	250	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.053		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	170		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.067		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	12		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.3		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	80		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-33-031015 — Lab Sample ID: 550-41327-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	11		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.0011	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-32-031015 — Lab Sample ID: 550-41327-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	11		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.013		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-4-031015 — Lab Sample ID: 550-41327-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.97		0.50	0.15	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	2.7		0.50	0.23	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.3		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	6.7		0.50	0.24	ug/L	1		8260B	Total/NA
Bromide	1.4		0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	220	D2	20	2.9	mg/L	10		300.0	Total/NA
Nitrate as N	15		0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	350	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.24		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	52		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.079		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	1.3	E4	2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.7		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	360		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	180		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	180		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-38-031015 — Lab Sample ID: 550-41327-5

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-38-031015 (Continued) — Lab Sample ID: 550-41327-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
n-Butylbenzene	0.47	E4	0.50	0.21	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.23	E4	0.50	0.17	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.40	E4	0.50	0.31	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	2.0		0.50	0.23	ug/L	1		8260B	Total/NA
Trichloroethene	1.2		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	8.6		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.024		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41327-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: IRA-39-031015

Lab Sample ID: 550-41327-1

Date Collected: 03/10/15 12:22

Matrix: Water

Date Received: 03/10/15 14:28

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 R6	10	7.3	ug/L			03/15/15 05:04	1
Benzene	ND	E8	0.50	0.12	ug/L			03/15/15 05:04	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 05:04	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/15/15 05:04	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/15/15 05:04	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/15/15 05:04	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/15/15 05:04	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/15/15 05:04	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 05:04	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/15/15 05:04	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 05:04	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/15/15 05:04	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/15/15 05:04	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 05:04	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/15/15 05:04	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/15/15 05:04	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/15/15 05:04	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/15/15 05:04	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/15/15 05:04	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/15/15 05:04	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/15/15 05:04	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/15/15 05:04	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/15/15 05:04	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/15/15 05:04	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 05:04	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 05:04	1
Dichlorodifluoromethane	**3.5**		0.50	0.15	ug/L			03/15/15 05:04	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/15/15 05:04	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 05:04	1
1,1-Dichloroethene	**1.4**		0.50	0.23	ug/L			03/15/15 05:04	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/15/15 05:04	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/15/15 05:04	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 05:04	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 05:04	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/15/15 05:04	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/15/15 05:04	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/15/15 05:04	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/15/15 05:04	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/15/15 05:04	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/15/15 05:04	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/15/15 05:04	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/15/15 05:04	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/15/15 05:04	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/15/15 05:04	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/15/15 05:04	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/15/15 05:04	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/15/15 05:04	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/15/15 05:04	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 05:04	1

Client Sample ID: IRA-39-031015

Lab Sample ID: 550-41327-1

Date Collected: 03/10/15 12:22

Matrix: Water

Date Received: 03/10/15 14:28

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/15/15 05:04	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/15/15 05:04	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/15/15 05:04	1
Tetrachloroethene	**4.3**		0.50	0.18	ug/L			03/15/15 05:04	1
Toluene	ND	E8	0.50	0.28	ug/L			03/15/15 05:04	1
1,2,3-Trichlorobenzene	ND	E8 N1	1.0	0.45	ug/L			03/15/15 05:04	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/15/15 05:04	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/15/15 05:04	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 05:04	1
Trichloroethene	**22**		0.50	0.24	ug/L			03/15/15 05:04	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 05:04	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/15/15 05:04	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 05:04	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 05:04	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/15/15 05:04	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/15/15 05:04	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/15/15 05:04	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/15/15 05:04	1
Hexane	ND	E8	2.0	1.6	ug/L			03/15/15 05:04	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/15/15 05:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/15/15 05:04*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/15/15 05:04*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/15/15 05:04*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/15/15 05:04*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/15/15 05:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*03/15/15 05:04*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/15/15 05:04*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*03/15/15 05:04*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.61**		0.50	0.051	mg/L			03/12/15 11:46	1
Chloride	**140**	**D2**	20	2.9	mg/L			03/20/15 00:23	10
Nitrate as N	**11**		0.10	0.051	mg/L			03/12/15 11:46	1
Sulfate	**250**	**D2**	20	2.1	mg/L			03/20/15 00:23	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.053**		0.050	0.0049	mg/L		03/11/15 11:10	03/12/15 15:05	1
Calcium	**170**		2.0	0.014	mg/L		03/11/15 11:10	03/12/15 15:05	1
Chromium	**0.067**		0.010	0.00050	mg/L		03/11/15 11:10	03/12/15 15:05	1
Magnesium	**12**		2.0	0.017	mg/L		03/11/15 11:10	03/12/15 15:05	1
Potassium	**3.3**		0.50	0.067	mg/L		03/11/15 11:10	03/12/15 15:05	1
Sodium	**80**		0.50	0.15	mg/L		03/11/15 11:10	03/12/15 15:05	1

Client Sample ID: IRA-39-031015

Lab Sample ID: 550-41327-1

Date Collected: 03/10/15 12:22
Matrix: Water
Date Received: 03/10/15 14:28

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/14/15 05:59	1
Bicarbonate Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/14/15 05:59	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:59	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 05:59	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 05:59	1

Client Sample ID: IRA-33-031015

Lab Sample ID: 550-41327-2

Date Collected: 03/10/15 08:25
Matrix: Water
Date Received: 03/10/15 14:28

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/15/15 04:41	1
Benzene	ND	E8	0.50	0.12	ug/L			03/15/15 04:41	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 04:41	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/15/15 04:41	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/15/15 04:41	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/15/15 04:41	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/15/15 04:41	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/15/15 04:41	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 04:41	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/15/15 04:41	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 04:41	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/15/15 04:41	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/15/15 04:41	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 04:41	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/15/15 04:41	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/15/15 04:41	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/15/15 04:41	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/15/15 04:41	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/15/15 04:41	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/15/15 04:41	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/15/15 04:41	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/15/15 04:41	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/15/15 04:41	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/15/15 04:41	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 04:41	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 04:41	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 04:41	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/15/15 04:41	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 04:41	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/15/15 04:41	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/15/15 04:41	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/15/15 04:41	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 04:41	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 04:41	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/15/15 04:41	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/15/15 04:41	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/15/15 04:41	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/15/15 04:41	1

Client Sample ID: IRA-33-031015

Lab Sample ID: 550-41327-2

Date Collected: 03/10/15 08:25

Matrix: Water

Date Received: 03/10/15 14:28

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/15/15 04:41	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/15/15 04:41	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/15/15 04:41	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/15/15 04:41	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/15/15 04:41	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/15/15 04:41	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/15/15 04:41	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/15/15 04:41	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/15/15 04:41	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/15/15 04:41	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 04:41	1
Styrene	ND	E8	0.50	0.17	ug/L			03/15/15 04:41	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/15/15 04:41	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/15/15 04:41	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/15/15 04:41	1
Toluene	ND	E8	0.50	0.28	ug/L			03/15/15 04:41	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/15/15 04:41	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/15/15 04:41	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/15/15 04:41	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 04:41	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/15/15 04:41	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 04:41	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/15/15 04:41	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 04:41	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 04:41	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/15/15 04:41	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/15/15 04:41	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/15/15 04:41	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/15/15 04:41	1
Hexane	ND	E8	2.0	1.6	ug/L			03/15/15 04:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/15/15 04:41*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/15/15 04:41*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/15/15 04:41*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/15/15 04:41*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/15/15 04:41*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/15/15 04:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*03/15/15 04:41*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*03/15/15 04:41*	*1*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*		*03/15/15 04:41*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**11**		0.10	0.051	mg/L			03/12/15 00:06	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-33-031015

Lab Sample ID: 550-41327-2

Date Collected: 03/10/15 08:25
Matrix: Water
Date Received: 03/10/15 14:28

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0011	E4	0.010	0.00050	mg/L		03/11/15 11:10	03/12/15 15:09	1

Client Sample ID: IRA-32-031015

Lab Sample ID: 550-41327-3

Date Collected: 03/10/15 09:45
Matrix: Water
Date Received: 03/10/15 14:28

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/15/15 05:12	1
Benzene	ND	E8	0.50	0.12	ug/L			03/15/15 05:12	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 05:12	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/15/15 05:12	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/15/15 05:12	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/15/15 05:12	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/15/15 05:12	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/15/15 05:12	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 05:12	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/15/15 05:12	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 05:12	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/15/15 05:12	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/15/15 05:12	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 05:12	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/15/15 05:12	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/15/15 05:12	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/15/15 05:12	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/15/15 05:12	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/15/15 05:12	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/15/15 05:12	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/15/15 05:12	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/15/15 05:12	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/15/15 05:12	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/15/15 05:12	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 05:12	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 05:12	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 05:12	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/15/15 05:12	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 05:12	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/15/15 05:12	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/15/15 05:12	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/15/15 05:12	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 05:12	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 05:12	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/15/15 05:12	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/15/15 05:12	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/15/15 05:12	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/15/15 05:12	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/15/15 05:12	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/15/15 05:12	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/15/15 05:12	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/15/15 05:12	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-32-031015

Lab Sample ID: 550-41327-3

Date Collected: 03/10/15 09:45
Matrix: Water
Date Received: 03/10/15 14:28

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/15/15 05:12	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/15/15 05:12	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/15/15 05:12	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/15/15 05:12	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/15/15 05:12	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/15/15 05:12	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 05:12	1
Styrene	ND	E8	0.50	0.17	ug/L			03/15/15 05:12	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/15/15 05:12	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/15/15 05:12	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/15/15 05:12	1
Toluene	ND	E8	0.50	0.28	ug/L			03/15/15 05:12	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/15/15 05:12	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/15/15 05:12	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/15/15 05:12	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 05:12	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/15/15 05:12	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 05:12	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/15/15 05:12	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 05:12	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 05:12	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/15/15 05:12	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/15/15 05:12	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/15/15 05:12	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/15/15 05:12	1
Hexane	ND	E8	2.0	1.6	ug/L			03/15/15 05:12	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/15/15 05:12*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/15/15 05:12*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/15/15 05:12*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/15/15 05:12*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/15/15 05:12*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/15/15 05:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*03/15/15 05:12*	*1*
Toluene-d8 (Surr)	*85*		*70 - 130*		*03/15/15 05:12*	*1*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*		*03/15/15 05:12*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**11**		0.10	0.051	mg/L			03/12/15 00:25	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.013**		0.010	0.00050	mg/L		03/11/15 11:10	03/12/15 15:12	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-4-031015

Date Collected: 03/10/15 13:55
Date Received: 03/10/15 14:28

Lab Sample ID: 550-41327-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 19:42	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 19:42	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 19:42	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 19:42	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 19:42	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 19:42	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 19:42	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 19:42	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:42	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 19:42	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 19:42	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 19:42	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 19:42	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 19:42	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 19:42	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 19:42	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 19:42	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 19:42	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 19:42	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 19:42	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 19:42	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 19:42	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 19:42	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 19:42	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 19:42	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 19:42	1
Dichlorodifluoromethane	**0.97**		0.50	0.15	ug/L			03/17/15 19:42	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 19:42	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 19:42	1
1,1-Dichloroethene	**2.7**		0.50	0.23	ug/L			03/17/15 19:42	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 19:42	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 19:42	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 19:42	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 19:42	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 19:42	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 19:42	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 19:42	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 19:42	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 19:42	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 19:42	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 19:42	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 19:42	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 19:42	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 19:42	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 19:42	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 19:42	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 19:42	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 19:42	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:42	1

Client Sample ID: IRA-4-031015

Lab Sample ID: 550-41327-4

Date Collected: 03/10/15 13:55

Matrix: Water

Date Received: 03/10/15 14:28

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 19:42	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 19:42	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 19:42	1
Tetrachloroethene	**1.3**		0.50	0.18	ug/L			03/17/15 19:42	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 19:42	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 19:42	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 19:42	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:42	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 19:42	1
Trichloroethene	**6.7**		0.50	0.24	ug/L			03/17/15 19:42	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:42	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 19:42	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 19:42	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:42	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 19:42	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 19:42	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 19:42	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 19:42	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 19:42	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 19:42	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 19:42*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 19:42*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 19:42*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 19:42*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 19:42*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*03/17/15 19:42*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*03/17/15 19:42*	*1*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*		*03/17/15 19:42*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**1.4**		0.50	0.051	mg/L			03/12/15 12:04	1
Chloride	**220**	**D2**	20	2.9	mg/L			03/20/15 01:18	10
Nitrate as N	**15**		0.10	0.051	mg/L			03/12/15 12:04	1
Sulfate	**350**	**D2**	20	2.1	mg/L			03/20/15 01:18	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.24**		0.050	0.0049	mg/L		03/11/15 11:10	03/12/15 15:15	1
Calcium	**52**		2.0	0.014	mg/L		03/11/15 11:10	03/12/15 15:15	1
Chromium	**0.079**		0.010	0.00050	mg/L		03/11/15 11:10	03/12/15 15:15	1
Magnesium	**1.3**	**E4**	2.0	0.017	mg/L		03/11/15 11:10	03/12/15 15:15	1
Potassium	**2.7**		0.50	0.067	mg/L		03/11/15 11:10	03/12/15 15:15	1
Sodium	**360**		0.50	0.15	mg/L		03/11/15 11:10	03/12/15 15:15	1

Client Sample ID: IRA-4-031015

Lab Sample ID: 550-41327-4

Date Collected: 03/10/15 13:55
Matrix: Water
Date Received: 03/10/15 14:28

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**180**		6.0	6.0	mg/L			03/14/15 06:12	1
Bicarbonate Alkalinity as CaCO3	**180**		6.0	6.0	mg/L			03/14/15 06:12	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 06:12	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 06:12	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 06:12	1

Client Sample ID: IRA-38-031015

Lab Sample ID: 550-41327-5

Date Collected: 03/10/15 11:10
Matrix: Water
Date Received: 03/10/15 14:28

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 21:17	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 21:17	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 21:17	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 21:17	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 21:17	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 21:17	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 21:17	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 21:17	1
n-Butylbenzene	**0.47**	**E4**	0.50	0.21	ug/L			03/17/15 21:17	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 21:17	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 21:17	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 21:17	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 21:17	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 21:17	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 21:17	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 21:17	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 21:17	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 21:17	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 21:17	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 21:17	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 21:17	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 21:17	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 21:17	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 21:17	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 21:17	1
1,4-Dichlorobenzene	**0.23**	**E4**	0.50	0.17	ug/L			03/17/15 21:17	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:17	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 21:17	1
1,2-Dichloroethane	**0.40**	**E4**	0.50	0.31	ug/L			03/17/15 21:17	1
1,1-Dichloroethene	**2.0**		0.50	0.23	ug/L			03/17/15 21:17	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 21:17	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 21:17	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 21:17	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 21:17	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 21:17	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 21:17	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 21:17	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 21:17	1

Client Sample ID: IRA-38-031015

Lab Sample ID: 550-41327-5

Date Collected: 03/10/15 11:10

Matrix: Water

Date Received: 03/10/15 14:28

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 21:17	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 21:17	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 21:17	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 21:17	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 21:17	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 21:17	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 21:17	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 21:17	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 21:17	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/19/15 11:00	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:17	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 21:17	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 21:17	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 21:17	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 21:17	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 21:17	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/19/15 11:00	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/19/15 11:00	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:17	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 21:17	1
Trichloroethene	**1.2**		0.50	0.24	ug/L			03/17/15 21:17	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:17	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 21:17	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 21:17	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:17	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 21:17	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 21:17	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 21:17	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 21:17	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 21:17	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 21:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 21:17*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 21:17*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 21:17*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 21:17*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 21:17*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*03/17/15 21:17*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/19/15 11:00*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*03/17/15 21:17*	*1*
Toluene-d8 (Surr)	*84*		*70 - 130*		*03/19/15 11:00*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*03/17/15 21:17*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*03/19/15 11:00*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**8.6**		0.10	0.051	mg/L			03/12/15 00:43	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-38-031015

Lab Sample ID: 550-41327-5

Date Collected: 03/10/15 11:10
Matrix: Water
Date Received: 03/10/15 14:28

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.024		0.010	0.00050	mg/L		03/11/15 11:10	03/12/15 15:18	1

Client Sample ID: TB

Lab Sample ID: 550-41327-6

Date Collected: 03/10/15 12:23
Matrix: Water
Date Received: 03/10/15 14:28

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 17:34	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 17:34	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 17:34	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 17:34	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 17:34	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 17:34	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 17:34	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 17:34	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 17:34	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 17:34	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 17:34	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 17:34	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 17:34	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 17:34	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 17:34	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 17:34	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 17:34	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 17:34	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 17:34	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 17:34	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 17:34	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 17:34	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 17:34	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 17:34	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 17:34	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 17:34	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 17:34	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 17:34	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 17:34	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 17:34	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 17:34	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 17:34	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 17:34	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 17:34	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 17:34	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 17:34	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 17:34	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 17:34	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 17:34	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 17:34	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 17:34	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 17:34	1

Client Sample ID: TB

Lab Sample ID: 550-41327-6

Date Collected: 03/10/15 12:23

Matrix: Water

Date Received: 03/10/15 14:28

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 17:34	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 17:34	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 17:34	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 17:34	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 17:34	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 17:34	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 17:34	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 17:34	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 17:34	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 17:34	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 17:34	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 17:34	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 17:34	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 17:34	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 17:34	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 17:34	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 17:34	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 17:34	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 17:34	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 17:34	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 17:34	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 17:34	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 17:34	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 17:34	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 17:34	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 17:34	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 17:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 17:34*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 17:34*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 17:34*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 17:34*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 17:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*03/17/15 17:34*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*03/17/15 17:34*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*03/17/15 17:34*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41237-G-3 MS	Matrix Spike	81	87	79
550-41237-G-3 MSD	Matrix Spike Duplicate	85	89	84
550-41327-1	IRA-39-031015	104	96	83
550-41327-2	IRA-33-031015	106	85	84
550-41327-3	IRA-32-031015	102	85	84
550-41327-4	IRA-4-031015	100	92	82
550-41327-4 MS	IRA-4-031015	92	86	84
550-41327-4 MSD	IRA-4-031015	90	89	84
550-41327-5	IRA-38-031015	103	93	93
550-41327-5	IRA-38-031015	95	84	83
550-41327-5 MS	IRA-38-031015	91	95	90
550-41327-5 MSD	IRA-38-031015	90	92	88
550-41327-6	TB	102	93	92
LCS 550-58543/3	Lab Control Sample	82	87	78
LCS 550-58715/4	Lab Control Sample	81	83	84
LCS 550-58909/4	Lab Control Sample	96	98	92
LCSD 550-58543/4	Lab Control Sample Dup	79	87	78
LCSD 550-58715/5	Lab Control Sample Dup	86	84	75
LCSD 550-58909/6	Lab Control Sample Dup	89	96	87
MB 550-58543/5	Method Blank	108	93	87
MB 550-58715/6	Method Blank	97	95	88
MB 550-58909/5	Method Blank	94	88	83

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-58543/5
Matrix: Water
Analysis Batch: 58543

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/14/15 20:26	1
Benzene	ND	E8	0.50	0.12	ug/L			03/14/15 20:26	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/14/15 20:26	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/14/15 20:26	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/14/15 20:26	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/14/15 20:26	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/14/15 20:26	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/14/15 20:26	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 20:26	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/14/15 20:26	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/14/15 20:26	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/14/15 20:26	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/14/15 20:26	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/14/15 20:26	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/14/15 20:26	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/14/15 20:26	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/14/15 20:26	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/14/15 20:26	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/14/15 20:26	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/14/15 20:26	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/14/15 20:26	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/14/15 20:26	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/14/15 20:26	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/14/15 20:26	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/14/15 20:26	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/14/15 20:26	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/14/15 20:26	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/14/15 20:26	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/14/15 20:26	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/14/15 20:26	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/14/15 20:26	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/14/15 20:26	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/14/15 20:26	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/14/15 20:26	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/14/15 20:26	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/14/15 20:26	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/14/15 20:26	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/14/15 20:26	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/14/15 20:26	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/14/15 20:26	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/14/15 20:26	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/14/15 20:26	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/14/15 20:26	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/14/15 20:26	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/14/15 20:26	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/14/15 20:26	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/14/15 20:26	1
Naphthalene	0.999	E4	2.5	0.51	ug/L			03/14/15 20:26	1

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

Lab Sample ID: MB 550-58543/5
Matrix: Water
Analysis Batch: 58543

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 20:26	1
Styrene	ND	E8	0.50	0.17	ug/L			03/14/15 20:26	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/14/15 20:26	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/14/15 20:26	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/14/15 20:26	1
Toluene	ND	E8	0.50	0.28	ug/L			03/14/15 20:26	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/14/15 20:26	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/14/15 20:26	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/14/15 20:26	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/14/15 20:26	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/14/15 20:26	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/14/15 20:26	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/14/15 20:26	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/14/15 20:26	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 20:26	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/14/15 20:26	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/14/15 20:26	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/14/15 20:26	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/14/15 20:26	1
Hexane	ND	E8	2.0	1.6	ug/L			03/14/15 20:26	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/14/15 20:26	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/14/15 20:26*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/14/15 20:26*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/14/15 20:26*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/14/15 20:26*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/14/15 20:26*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*03/14/15 20:26*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*03/14/15 20:26*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/14/15 20:26*	*1*

Lab Sample ID: LCS 550-58543/3
Matrix: Water
Analysis Batch: 58543

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	23.0		ug/L		92	38 - 150
Benzene	25.0	24.3		ug/L		97	70 - 130
Bromobenzene	25.0	26.5		ug/L		106	70 - 130
Chlorobromomethane	25.0	23.1		ug/L		92	70 - 130
Dichlorobromomethane	25.0	23.5		ug/L		94	70 - 130
Bromoform	25.0	23.7		ug/L		95	69 - 129
Bromomethane	25.0	23.8		ug/L		95	57 - 138
2-Butanone (MEK)	25.0	28.2		ug/L		113	53 - 150

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

Lab Sample ID: LCS 550-58543/3
Matrix: Water
Analysis Batch: 58543

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	23.2		ug/L		93	70 - 130
sec-Butylbenzene	25.0	25.2		ug/L		101	70 - 130
Carbon disulfide	25.0	26.6		ug/L		106	64 - 145
Carbon tetrachloride	25.0	25.1		ug/L		100	70 - 143
Chlorobenzene	25.0	24.9		ug/L		100	70 - 130
Chloroethane	25.0	23.7		ug/L		95	66 - 131
Chloroform	25.0	25.3		ug/L		101	70 - 130
Chloromethane	25.0	23.1		ug/L		92	56 - 129
2-Chlorotoluene	25.0	25.0		ug/L		100	70 - 130
4-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130
Chlorodibromomethane	25.0	22.9		ug/L		92	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.7		ug/L		103	63 - 146
Ethylene Dibromide	25.0	24.4		ug/L		97	70 - 130
Dibromomethane	25.0	21.7		ug/L		87	70 - 130
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	70 - 130
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,4-Dichlorobenzene	25.0	25.6		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	22.8		ug/L		91	46 - 144
1,1-Dichloroethane	25.0	25.4		ug/L		101	70 - 130
1,2-Dichloroethane	25.0	23.4		ug/L		94	66 - 139
1,1-Dichloroethene	25.0	26.8		ug/L		107	63 - 131
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	70 - 130
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	69 - 127
1,2-Dichloropropane	25.0	24.1		ug/L		96	70 - 130
1,3-Dichloropropane	25.0	24.2		ug/L		97	70 - 130
2,2-Dichloropropane	25.0	27.8		ug/L		111	69 - 139
1,1-Dichloropropene	25.0	24.5		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	23.0		ug/L		92	70 - 130
trans-1,3-Dichloropropene	25.0	22.3		ug/L		89	70 - 130
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130
Hexachlorobutadiene	25.0	23.5		ug/L		94	76 - 145
2-Hexanone	25.0	23.3		ug/L		93	55 - 150
Iodomethane	25.0	26.6		ug/L		107	70 - 130
Isopropylbenzene	25.0	25.4		ug/L		102	88 - 141
4-Isopropyltoluene	25.0	24.3		ug/L		97	70 - 130
Methylene Chloride	25.0	25.0		ug/L		100	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.0		ug/L		92	64 - 142
Methyl tert-butyl ether	25.0	23.1		ug/L		92	70 - 130
Naphthalene	25.0	22.4		ug/L		90	78 - 143
N-Propylbenzene	25.0	26.2		ug/L		105	70 - 130
Styrene	25.0	22.4		ug/L		90	70 - 130
1,1,1,2-Tetrachloroethane	25.0	23.1		ug/L		92	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	70 - 130
Tetrachloroethene	25.0	24.3		ug/L		97	70 - 130
Toluene	25.0	24.0		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	25.0	20.2		ug/L		81	79 - 139
1,2,4-Trichlorobenzene	25.0	21.7		ug/L		87	80 - 137
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	71 - 131

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

Lab Sample ID: LCS 550-58543/3
Matrix: Water
Analysis Batch: 58543

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	22.9		ug/L		92	70 - 130
Trichloroethene	25.0	25.3		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	25.6		ug/L		102	69 - 150
1,2,3-Trichloropropane	25.0	22.4		ug/L		90	70 - 130
1,2,4-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	25.0	25.5		ug/L		102	70 - 130
Vinyl acetate	25.0	24.3		ug/L		97	67 - 148
Vinyl chloride	25.0	25.0		ug/L		100	65 - 137
Xylenes, Total	50.0	48.1		ug/L		96	70 - 130
Butadiene	25.0	26.7		ug/L		107	12 - 150
Hexane	25.0	25.2		ug/L		101	54 - 132
m-Xylene & p-Xylene	25.0	23.0		ug/L		92	70 - 130
o-Xylene	25.0	25.1		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*82*		*70 - 130*
Toluene-d8 (Surr)	*87*		*70 - 130*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*

Lab Sample ID: LCSD 550-58543/4
Matrix: Water
Analysis Batch: 58543

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	15.8	R6	ug/L		63	38 - 150	37	35
Benzene	25.0	24.0		ug/L		96	70 - 130	1	20
Bromobenzene	25.0	26.7		ug/L		107	70 - 130	1	20
Chlorobromomethane	25.0	21.1		ug/L		84	70 - 130	9	20
Dichlorobromomethane	25.0	23.0		ug/L		92	70 - 130	2	20
Bromoform	25.0	23.4		ug/L		94	69 - 129	1	20
Bromomethane	25.0	25.1		ug/L		100	57 - 138	5	20
2-Butanone (MEK)	25.0	26.3		ug/L		105	53 - 150	7	35
n-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	9	20
sec-Butylbenzene	25.0	27.0		ug/L		108	70 - 130	7	20
Carbon disulfide	25.0	25.9		ug/L		104	64 - 145	3	33
Carbon tetrachloride	25.0	26.8		ug/L		107	70 - 143	6	20
Chlorobenzene	25.0	23.5		ug/L		94	70 - 130	6	20
Chloroethane	25.0	22.6		ug/L		91	66 - 131	4	20
Chloroform	25.0	24.2		ug/L		97	70 - 130	4	20
Chloromethane	25.0	23.1		ug/L		92	56 - 129	0	20
2-Chlorotoluene	25.0	27.0		ug/L		108	70 - 130	8	20
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130	1	20
Chlorodibromomethane	25.0	22.1		ug/L		88	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	63 - 146	1	22
Ethylene Dibromide	25.0	22.7		ug/L		91	70 - 130	7	20
Dibromomethane	25.0	21.3		ug/L		85	70 - 130	2	20
1,2-Dichlorobenzene	25.0	24.6		ug/L		98	70 - 130	1	20
1,3-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130	2	20

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

Lab Sample ID: LCSD 550-58543/4
Matrix: Water
Analysis Batch: 58543

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130	2	20
Dichlorodifluoromethane	25.0	22.6		ug/L		90	46 - 144	1	23
1,1-Dichloroethane	25.0	23.7		ug/L		95	70 - 130	7	20
1,2-Dichloroethane	25.0	22.2		ug/L		89	66 - 139	5	20
1,1-Dichloroethene	25.0	25.6		ug/L		102	63 - 131	4	22
cis-1,2-Dichloroethene	25.0	24.3		ug/L		97	70 - 130	8	20
trans-1,2-Dichloroethene	25.0	26.2		ug/L		105	69 - 127	0	20
1,2-Dichloropropane	25.0	22.7		ug/L		91	70 - 130	6	20
1,3-Dichloropropane	25.0	23.8		ug/L		95	70 - 130	2	20
2,2-Dichloropropane	25.0	26.9		ug/L		108	69 - 139	3	20
1,1-Dichloropropene	25.0	26.1		ug/L		105	70 - 130	7	20
cis-1,3-Dichloropropene	25.0	23.2		ug/L		93	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	22.1		ug/L		88	70 - 130	1	20
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130	0	20
Hexachlorobutadiene	25.0	24.3		ug/L		97	76 - 145	3	20
2-Hexanone	25.0	21.1		ug/L		84	55 - 150	10	35
Iodomethane	25.0	25.0		ug/L		100	70 - 130	6	20
Isopropylbenzene	25.0	28.1		ug/L		113	88 - 141	10	20
4-Isopropyltoluene	25.0	24.2		ug/L		97	70 - 130	1	20
Methylene Chloride	25.0	23.4		ug/L		94	63 - 128	7	21
4-Methyl-2-pentanone (MIBK)	25.0	22.0		ug/L		88	64 - 142	4	25
Methyl tert-butyl ether	25.0	22.5		ug/L		90	70 - 130	3	20
Naphthalene	25.0	23.8		ug/L		95	78 - 143	6	20
N-Propylbenzene	25.0	27.4		ug/L		110	70 - 130	5	20
Styrene	25.0	22.3		ug/L		89	70 - 130	0	20
1,1,1,2-Tetrachloroethane	25.0	23.2		ug/L		93	70 - 130	0	20
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L		102	70 - 130	1	20
Tetrachloroethene	25.0	24.4		ug/L		98	70 - 130	0	20
Toluene	25.0	24.6		ug/L		98	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	19.6	N1	ug/L		78	79 - 139	3	20
1,2,4-Trichlorobenzene	25.0	21.6		ug/L		86	80 - 137	0	20
1,1,1-Trichloroethane	25.0	25.9		ug/L		103	71 - 131	3	20
1,1,2-Trichloroethane	25.0	24.0		ug/L		96	70 - 130	5	20
Trichloroethene	25.0	25.4		ug/L		102	70 - 130	0	20
Trichlorofluoromethane	25.0	24.3		ug/L		97	69 - 150	5	22
1,2,3-Trichloropropane	25.0	23.6		ug/L		94	70 - 130	5	20
1,2,4-Trimethylbenzene	25.0	24.9		ug/L		100	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130	4	20
Vinyl acetate	25.0	22.2		ug/L		89	67 - 148	9	22
Vinyl chloride	25.0	23.8		ug/L		95	65 - 137	5	20
Xylenes, Total	50.0	48.5		ug/L		97	70 - 130	1	20
Butadiene	25.0	26.4		ug/L		106	12 - 150	1	35
Hexane	25.0	22.9		ug/L		91	54 - 132	10	28
m-Xylene & p-Xylene	25.0	23.6		ug/L		95	70 - 130	3	20
o-Xylene	25.0	24.9		ug/L		100	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*79*		*70 - 130*

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

Lab Sample ID: LCSD 550-58543/4
Matrix: Water
Analysis Batch: 58543

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*87*		*70 - 130*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*

Lab Sample ID: 550-41237-G-3 MS
Matrix: Water
Analysis Batch: 58543

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8 R6	25.0	8.09	E4	ug/L		32	29 - 139
Benzene	0.24	E4	25.0	25.1		ug/L		99	68 - 131
Bromobenzene	ND	E8	25.0	28.5		ug/L		114	70 - 130
Chlorobromomethane	ND	E8	25.0	22.7		ug/L		91	64 - 132
Dichlorobromomethane	ND	E8	25.0	26.2		ug/L		105	63 - 138
Bromoform	ND	E8	25.0	25.2		ug/L		101	60 - 128
Bromomethane	ND	E8	25.0	24.9		ug/L		99	47 - 144
2-Butanone (MEK)	ND	E8	25.0	21.8		ug/L		87	31 - 143
n-Butylbenzene	ND	E8	25.0	23.4		ug/L		94	69 - 140
sec-Butylbenzene	ND	E8	25.0	26.7		ug/L		107	72 - 136
Carbon disulfide	ND	E8	25.0	26.0		ug/L		104	45 - 150
Carbon tetrachloride	ND	E8	25.0	27.0		ug/L		108	65 - 147
Chlorobenzene	ND	E8	25.0	24.0		ug/L		96	70 - 130
Chloroethane	ND	E8	25.0	23.2		ug/L		93	57 - 139
Chloroform	0.55		25.0	24.9		ug/L		97	63 - 131
Chloromethane	ND	E8	25.0	22.3		ug/L		89	47 - 134
2-Chlorotoluene	ND	E8	25.0	26.9		ug/L		108	71 - 131
4-Chlorotoluene	ND	E8	25.0	26.8		ug/L		107	70 - 130
Chlorodibromomethane	ND	E8	25.0	22.7		ug/L		91	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.7		ug/L		99	53 - 145
Ethylene Dibromide	ND	E8	25.0	24.2		ug/L		97	70 - 130
Dibromomethane	ND	E8	25.0	22.7		ug/L		91	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	27.1		ug/L		108	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	25.3		ug/L		101	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	24.3		ug/L		97	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	24.5		ug/L		98	40 - 148
1,1-Dichloroethane	ND	E8	25.0	24.7		ug/L		99	62 - 130
1,2-Dichloroethane	ND	E8	25.0	23.4		ug/L		93	54 - 147
1,1-Dichloroethene	1.6		25.0	27.6		ug/L		104	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	24.5		ug/L		98	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.1		ug/L		101	62 - 131
1,2-Dichloropropane	ND	E8	25.0	24.0		ug/L		96	68 - 126
1,3-Dichloropropane	ND	E8	25.0	21.6		ug/L		86	68 - 129
2,2-Dichloropropane	ND	E8	25.0	24.8		ug/L		99	60 - 146
1,1-Dichloropropene	ND	E8	25.0	26.5		ug/L		106	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	23.6		ug/L		94	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	22.8		ug/L		91	58 - 136
Ethylbenzene	ND	E8	25.0	24.7		ug/L		99	74 - 134
Hexachlorobutadiene	ND	E8	25.0	23.6		ug/L		94	69 - 150
2-Hexanone	ND	E8	25.0	19.0		ug/L		76	40 - 142

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

Lab Sample ID: 550-41237-G-3 MS
Matrix: Water
Analysis Batch: 58543

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND	E8	25.0	26.4		ug/L		106	53 - 150
Isopropylbenzene	ND	E8	25.0	27.6		ug/L		111	80 - 146
4-Isopropyltoluene	ND	E8	25.0	25.5		ug/L		102	70 - 133
Methylene Chloride	ND	E8	25.0	24.4		ug/L		98	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	21.8		ug/L		87	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	24.2		ug/L		97	67 - 138
Naphthalene	ND	E8	25.0	20.1		ug/L		81	67 - 146
N-Propylbenzene	ND	E8	25.0	26.9		ug/L		108	74 - 140
Styrene	ND	E8	25.0	22.8		ug/L		91	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	23.6		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.4		ug/L		110	63 - 137
Tetrachloroethene	55		25.0	79.0		ug/L		95	67 - 131
Toluene	1.7		25.0	26.6		ug/L		99	65 - 138
1,2,3-Trichlorobenzene	ND	E8 N1	25.0	20.0		ug/L		80	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	20.3		ug/L		81	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	24.6		ug/L		98	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	24.9		ug/L		100	63 - 132
Trichloroethene	5.6		25.0	32.2		ug/L		106	66 - 132
Trichlorofluoromethane	ND	E8	25.0	26.5		ug/L		106	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	26.8		ug/L		107	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	25.3		ug/L		101	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	26.1		ug/L		104	66 - 137
Vinyl acetate	ND	E8	25.0	20.2		ug/L		81	47 - 150
Vinyl chloride	ND	E8	25.0	24.2		ug/L		97	55 - 146
Xylenes, Total	ND	E8	50.0	46.4		ug/L		93	68 - 131
Butadiene	ND	E8	25.0	26.9		ug/L		108	10 - 150
Hexane	ND	E8	25.0	26.4		ug/L		106	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	23.1		ug/L		92	58 - 138
o-Xylene	ND	E8	25.0	23.3		ug/L		93	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*81*		*70 - 130*
Toluene-d8 (Surr)	*87*		*70 - 130*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*

Lab Sample ID: 550-41237-G-3 MSD
Matrix: Water
Analysis Batch: 58543

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8 R6	25.0	10.5		ug/L		42	29 - 139	26	35
Benzene	0.24	E4	25.0	23.8		ug/L		94	68 - 131	5	32
Bromobenzene	ND	E8	25.0	28.8		ug/L		115	70 - 130	1	28
Chlorobromomethane	ND	E8	25.0	22.6		ug/L		90	64 - 132	0	35
Dichlorobromomethane	ND	E8	25.0	24.2		ug/L		97	63 - 138	8	31
Bromoform	ND	E8	25.0	26.2		ug/L		105	60 - 128	4	31
Bromomethane	ND	E8	25.0	25.4		ug/L		102	47 - 144	2	35
2-Butanone (MEK)	ND	E8	25.0	27.1		ug/L		108	31 - 143	21	35

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

Lab Sample ID: 550-41237-G-3 MSD
Matrix: Water
Analysis Batch: 58543

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene	ND	E8	25.0	24.1		ug/L		96	69 - 140	3	32
sec-Butylbenzene	ND	E8	25.0	26.5		ug/L		106	72 - 136	1	33
Carbon disulfide	ND	E8	25.0	26.5		ug/L		106	45 - 150	2	35
Carbon tetrachloride	ND	E8	25.0	25.7		ug/L		103	65 - 147	5	35
Chlorobenzene	ND	E8	25.0	24.7		ug/L		99	70 - 130	3	30
Chloroethane	ND	E8	25.0	22.9		ug/L		92	57 - 139	1	35
Chloroform	0.55		25.0	25.6		ug/L		100	63 - 131	3	33
Chloromethane	ND	E8	25.0	22.3		ug/L		89	47 - 134	0	35
2-Chlorotoluene	ND	E8	25.0	28.1		ug/L		112	71 - 131	4	29
4-Chlorotoluene	ND	E8	25.0	26.6		ug/L		106	70 - 130	1	28
Chlorodibromomethane	ND	E8	25.0	23.8		ug/L		95	65 - 134	5	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.6		ug/L		98	53 - 145	0	35
Ethylene Dibromide	ND	E8	25.0	24.8		ug/L		99	70 - 130	2	33
Dibromomethane	ND	E8	25.0	22.1		ug/L		89	66 - 136	2	35
1,2-Dichlorobenzene	ND	E8	25.0	25.7		ug/L		103	70 - 130	5	27
1,3-Dichlorobenzene	ND	E8	25.0	25.5		ug/L		102	70 - 130	1	28
1,4-Dichlorobenzene	ND	E8	25.0	25.6		ug/L		103	70 - 130	5	26
Dichlorodifluoromethane	ND	E8	25.0	24.1		ug/L		96	40 - 148	2	35
1,1-Dichloroethane	ND	E8	25.0	25.1		ug/L		100	62 - 130	2	34
1,2-Dichloroethane	ND	E8	25.0	23.7		ug/L		95	54 - 147	2	35
1,1-Dichloroethene	1.6		25.0	27.0		ug/L		102	57 - 137	2	35
cis-1,2-Dichloroethene	ND	E8	25.0	25.2		ug/L		101	65 - 127	3	34
trans-1,2-Dichloroethene	ND	E8	25.0	25.0		ug/L		100	62 - 131	1	35
1,2-Dichloropropane	ND	E8	25.0	24.3		ug/L		97	68 - 126	1	32
1,3-Dichloropropane	ND	E8	25.0	25.1		ug/L		100	68 - 129	15	33
2,2-Dichloropropane	ND	E8	25.0	25.4		ug/L		102	60 - 146	3	35
1,1-Dichloropropene	ND	E8	25.0	25.4		ug/L		102	64 - 134	4	34
cis-1,3-Dichloropropene	ND	E8	25.0	24.4		ug/L		98	63 - 135	4	35
trans-1,3-Dichloropropene	ND	E8	25.0	21.1		ug/L		84	58 - 136	8	35
Ethylbenzene	ND	E8	25.0	24.2		ug/L		97	74 - 134	2	32
Hexachlorobutadiene	ND	E8	25.0	23.1		ug/L		92	69 - 150	2	32
2-Hexanone	ND	E8	25.0	18.8		ug/L		75	40 - 142	1	35
Iodomethane	ND	E8	25.0	27.6		ug/L		110	53 - 150	4	35
Isopropylbenzene	ND	E8	25.0	28.1		ug/L		112	80 - 146	2	32
4-Isopropyltoluene	ND	E8	25.0	26.1		ug/L		104	70 - 133	2	32
Methylene Chloride	ND	E8	25.0	23.1		ug/L		92	55 - 133	6	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	22.7		ug/L		91	52 - 143	4	35
Methyl tert-butyl ether	ND	E8	25.0	24.7		ug/L		99	67 - 138	2	21
Naphthalene	ND	E8	25.0	23.7		ug/L		95	67 - 146	16	29
N-Propylbenzene	ND	E8	25.0	27.4		ug/L		110	74 - 140	2	32
Styrene	ND	E8	25.0	22.3		ug/L		89	43 - 144	2	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	23.4		ug/L		93	70 - 130	1	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	28.4		ug/L		114	63 - 137	3	32
Tetrachloroethene	55		25.0	77.9		ug/L		91	67 - 131	1	31
Toluene	1.7		25.0	25.8		ug/L		96	65 - 138	3	33
1,2,3-Trichlorobenzene	ND	E8 N1	25.0	21.2		ug/L		85	74 - 139	6	26
1,2,4-Trichlorobenzene	ND	E8	25.0	21.6		ug/L		86	74 - 138	6	26
1,1,1-Trichloroethane	ND	E8	25.0	25.8		ug/L		103	64 - 138	5	35

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

Lab Sample ID: 550-41237-G-3 MSD
Matrix: Water
Analysis Batch: 58543

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND	E8	25.0	24.6		ug/L		98	63 - 132	1	35
Trichloroethene	5.6		25.0	30.6		ug/L		100	66 - 132	5	29
Trichlorofluoromethane	ND	E8	25.0	26.0		ug/L		104	62 - 150	2	35
1,2,3-Trichloropropane	ND	E8	25.0	27.9		ug/L		112	68 - 130	4	32
1,2,4-Trimethylbenzene	ND	E8	25.0	25.8		ug/L		103	63 - 135	2	31
1,3,5-Trimethylbenzene	ND	E8	25.0	26.9		ug/L		108	66 - 137	3	30
Vinyl acetate	ND	E8	25.0	21.4		ug/L		86	47 - 150	5	35
Vinyl chloride	ND	E8	25.0	24.3		ug/L		97	55 - 146	1	35
Xylenes, Total	ND	E8	50.0	47.8		ug/L		96	68 - 131	3	31
Butadiene	ND	E8	25.0	26.6		ug/L		106	10 - 150	1	35
Hexane	ND	E8	25.0	30.1		ug/L		120	46 - 139	13	35
m-Xylene & p-Xylene	ND	E8	25.0	23.5		ug/L		94	58 - 138	2	29
o-Xylene	ND	E8	25.0	24.3		ug/L		97	66 - 137	4	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*85*		*70 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 16:30	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 16:30	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 16:30	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 16:30	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 16:30	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 16:30	1
n-Butylbenzene	0.645	B1	0.50	0.21	ug/L			03/17/15 16:30	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 16:30	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 16:30	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 16:30	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 16:30	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 16:30	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 16:30	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
1,2-Dichlorobenzene	0.238	E4	0.50	0.22	ug/L			03/17/15 16:30	1

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

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 16:30	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 16:30	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 16:30	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 16:30	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 16:30	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 16:30	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 16:30	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Methylene Chloride	0.670	E4	1.0	0.67	ug/L			03/17/15 16:30	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 16:30	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
Naphthalene	3.06	B1	2.5	0.51	ug/L			03/17/15 16:30	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 16:30	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 16:30	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 16:30	1
1,2,3-Trichlorobenzene	1.63	B1	1.0	0.45	ug/L			03/17/15 16:30	1
1,2,4-Trichlorobenzene	1.16	B1	1.0	0.32	ug/L			03/17/15 16:30	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 16:30	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 16:30	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 16:30	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 16:30	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 16:30	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 16:30	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 16:30	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 16:30*	*1*

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

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Dicyclopentadiene TIC	ND	E8 T4	ug/L			77-73-6		03/17/15 16:30	1
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/17/15 16:30	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/17/15 16:30	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/17/15 16:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	97		70 - 130		03/17/15 16:30	1
Toluene-d8 (Surr)	95		70 - 130		03/17/15 16:30	1
4-Bromofluorobenzene (Surr)	88		70 - 130		03/17/15 16:30	1

Lab Sample ID: LCS 550-58715/4
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	18.5		ug/L		74	38 - 150
Benzene	25.0	26.6		ug/L		106	70 - 130
Bromobenzene	25.0	26.3		ug/L		105	70 - 130
Chlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Dichlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Bromoform	25.0	24.7		ug/L		99	69 - 129
Bromomethane	25.0	28.6		ug/L		114	57 - 138
2-Butanone (MEK)	25.0	31.5		ug/L		126	53 - 150
n-Butylbenzene	25.0	27.1		ug/L		108	70 - 130
sec-Butylbenzene	25.0	26.8		ug/L		107	70 - 130
Carbon disulfide	25.0	29.3		ug/L		117	64 - 145
Carbon tetrachloride	25.0	28.2		ug/L		113	70 - 143
Chlorobenzene	25.0	28.4		ug/L		114	70 - 130
Chloroethane	25.0	27.8		ug/L		111	66 - 131
Chloroform	25.0	27.7		ug/L		111	70 - 130
Chloromethane	25.0	27.0		ug/L		108	56 - 129
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130
4-Chlorotoluene	25.0	28.5		ug/L		114	70 - 130
Chlorodibromomethane	25.0	28.4		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.1		ug/L		105	63 - 146
Ethylene Dibromide	25.0	28.2		ug/L		113	70 - 130
Dibromomethane	25.0	23.5		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144
1,1-Dichloroethane	25.0	28.3		ug/L		113	70 - 130
1,2-Dichloroethane	25.0	25.7		ug/L		103	66 - 139
1,1-Dichloroethene	25.0	27.8		ug/L		111	63 - 131
cis-1,2-Dichloroethene	25.0	29.4		ug/L		117	70 - 130
trans-1,2-Dichloroethene	25.0	29.1		ug/L		116	69 - 127
1,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 130

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

Lab Sample ID: LCS 550-58715/4
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	25.0	28.2		ug/L		113	70 - 130
2,2-Dichloropropane	25.0	31.1		ug/L		125	69 - 139
1,1-Dichloropropene	25.0	27.0		ug/L		108	70 - 130
cis-1,3-Dichloropropene	25.0	28.9		ug/L		116	70 - 130
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
Ethylbenzene	25.0	28.4		ug/L		114	70 - 130
Hexachlorobutadiene	25.0	22.9		ug/L		92	76 - 145
2-Hexanone	25.0	31.8		ug/L		127	55 - 150
Iodomethane	25.0	28.9		ug/L		115	70 - 130
Isopropylbenzene	25.0	27.3		ug/L		109	88 - 141
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130
Methylene Chloride	25.0	27.9		ug/L		112	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142
Methyl tert-butyl ether	25.0	27.1		ug/L		109	70 - 130
Naphthalene	25.0	26.3		ug/L		105	78 - 143
N-Propylbenzene	25.0	27.5		ug/L		110	70 - 130
Styrene	25.0	26.7		ug/L		107	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.3		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.2		ug/L		113	70 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Toluene	25.0	25.7		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 139
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	80 - 137
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	71 - 131
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130
Trichloroethene	25.0	26.5		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	29.0		ug/L		116	69 - 150
1,2,3-Trichloropropane	25.0	26.2		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	25.0	26.3		ug/L		105	70 - 130
1,3,5-Trimethylbenzene	25.0	27.2		ug/L		109	70 - 130
Vinyl acetate	25.0	26.7		ug/L		107	67 - 148
Vinyl chloride	25.0	27.7		ug/L		111	65 - 137
Xylenes, Total	50.0	56.3		ug/L		113	70 - 130
Butadiene	25.0	29.3		ug/L		117	12 - 150
Hexane	25.0	27.3		ug/L		109	54 - 132
m-Xylene & p-Xylene	25.0	27.9		ug/L		111	70 - 130
o-Xylene	25.0	28.4		ug/L		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*81*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

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

Lab Sample ID: LCSD 550-58715/5
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	20.9		ug/L		84	38 - 150	12	35
Benzene	25.0	26.3		ug/L		105	70 - 130	1	20
Bromobenzene	25.0	26.7		ug/L		107	70 - 130	1	20
Chlorobromomethane	25.0	25.0		ug/L		100	70 - 130	4	20
Dichlorobromomethane	25.0	26.8		ug/L		107	70 - 130	3	20
Bromoform	25.0	24.7		ug/L		99	69 - 129	0	20
Bromomethane	25.0	29.3		ug/L		117	57 - 138	3	20
2-Butanone (MEK)	25.0	31.1		ug/L		124	53 - 150	1	35
n-Butylbenzene	25.0	25.0		ug/L		100	70 - 130	8	20
sec-Butylbenzene	25.0	25.9		ug/L		103	70 - 130	4	20
Carbon disulfide	25.0	30.4		ug/L		122	64 - 145	4	33
Carbon tetrachloride	25.0	27.4		ug/L		109	70 - 143	3	20
Chlorobenzene	25.0	26.4		ug/L		106	70 - 130	7	20
Chloroethane	25.0	27.6		ug/L		110	66 - 131	1	20
Chloroform	25.0	28.4		ug/L		114	70 - 130	3	20
Chloromethane	25.0	27.3		ug/L		109	56 - 129	1	20
2-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	3	20
4-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	7	20
Chlorodibromomethane	25.0	24.5		ug/L		98	70 - 130	15	20
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	63 - 146	3	22
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130	7	20
Dibromomethane	25.0	24.4		ug/L		98	70 - 130	4	20
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	3	20
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	4	20
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	3	20
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144	0	23
1,1-Dichloroethane	25.0	30.1		ug/L		121	70 - 130	6	20
1,2-Dichloroethane	25.0	27.2		ug/L		109	66 - 139	6	20
1,1-Dichloroethene	25.0	28.7		ug/L		115	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	28.7		ug/L		115	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	30.0		ug/L		120	69 - 127	3	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	3	20
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	10	20
2,2-Dichloropropane	25.0	32.4		ug/L		130	69 - 139	4	20
1,1-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130	15	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 130	2	20
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130	14	20
Hexachlorobutadiene	25.0	22.3		ug/L		89	76 - 145	3	20
2-Hexanone	25.0	21.3	R6	ug/L		85	55 - 150	39	35
Iodomethane	25.0	30.3		ug/L		121	70 - 130	5	20
Isopropylbenzene	25.0	25.7		ug/L		103	88 - 141	6	20
4-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 130	3	20
Methylene Chloride	25.0	28.4		ug/L		114	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142	0	25
Methyl tert-butyl ether	25.0	28.9		ug/L		116	70 - 130	6	20
Naphthalene	25.0	26.1		ug/L		104	78 - 143	1	20
N-Propylbenzene	25.0	26.7		ug/L		107	70 - 130	3	20

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

Lab Sample ID: LCSD 550-58715/5
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Styrene	25.0	23.3		ug/L		93	70 - 130	13	20
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	14	20
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	70 - 130	1	20
Tetrachloroethene	25.0	25.8		ug/L		103	70 - 130	7	20
Toluene	25.0	26.3		ug/L		105	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	21.6		ug/L		87	79 - 139	15	20
1,2,4-Trichlorobenzene	25.0	23.1		ug/L		93	80 - 137	11	20
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	71 - 131	7	20
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130	0	20
Trichloroethene	25.0	27.2		ug/L		109	70 - 130	3	20
Trichlorofluoromethane	25.0	28.4		ug/L		114	69 - 150	2	22
1,2,3-Trichloropropane	25.0	23.4		ug/L		94	70 - 130	11	20
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		105	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 130	2	20
Vinyl acetate	25.0	28.7		ug/L		115	67 - 148	7	22
Vinyl chloride	25.0	28.1		ug/L		112	65 - 137	1	20
Xylenes, Total	50.0	49.4		ug/L		99	70 - 130	13	20
Butadiene	25.0	30.8		ug/L		123	12 - 150	5	35
Hexane	25.0	29.0		ug/L		116	54 - 132	6	28
m-Xylene & p-Xylene	25.0	23.8		ug/L		95	70 - 130	16	20
o-Xylene	25.0	25.6		ug/L		102	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: 550-41327-4 MS
Matrix: Water
Analysis Batch: 58715

Client Sample ID: IRA-4-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acetone	ND	E8	25.0	13.9		ug/L		55	29 - 139		
Benzene	ND	E8	25.0	25.9		ug/L		103	68 - 131		
Bromobenzene	ND	E8	25.0	26.1		ug/L		104	70 - 130		
Chlorobromomethane	ND	E8	25.0	26.2		ug/L		105	64 - 132		
Dichlorobromomethane	ND	E8	25.0	27.3		ug/L		109	63 - 138		
Bromoform	ND	E8	25.0	24.5		ug/L		98	60 - 128		
Bromomethane	ND	E8	25.0	29.2		ug/L		117	47 - 144		
2-Butanone (MEK)	ND	E8	25.0	23.9		ug/L		96	31 - 143		
n-Butylbenzene	ND	E8	25.0	22.3		ug/L		89	69 - 140		
sec-Butylbenzene	ND	E8	25.0	25.0		ug/L		100	72 - 136		
Carbon disulfide	ND	E8	25.0	29.2		ug/L		117	45 - 150		
Carbon tetrachloride	ND	E8	25.0	27.4		ug/L		110	65 - 147		
Chlorobenzene	ND	E8	25.0	27.1		ug/L		108	70 - 130		
Chloroethane	ND	E8	25.0	25.7		ug/L		103	57 - 139		
Chloroform	ND	E8	25.0	29.4		ug/L		117	63 - 131		
Chloromethane	ND	E8	25.0	25.8		ug/L		103	47 - 134		

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

Lab Sample ID: 550-41327-4 MS
Matrix: Water
Analysis Batch: 58715

Client Sample ID: IRA-4-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	ND	E8	25.0	25.5		ug/L		102	71 - 131
4-Chlorotoluene	ND	E8	25.0	26.1		ug/L		105	70 - 130
Chlorodibromomethane	ND	E8	25.0	26.2		ug/L		105	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	25.2		ug/L		101	53 - 145
Ethylene Dibromide	ND	E8	25.0	27.7		ug/L		111	70 - 130
Dibromomethane	ND	E8	25.0	24.7		ug/L		99	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	25.8		ug/L		103	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	24.7		ug/L		99	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	24.1		ug/L		96	70 - 130
Dichlorodifluoromethane	0.97		25.0	26.6		ug/L		103	40 - 148
1,1-Dichloroethane	ND	E8	25.0	27.8		ug/L		111	62 - 130
1,2-Dichloroethane	ND	E8	25.0	28.1		ug/L		112	54 - 147
1,1-Dichloroethene	2.7		25.0	32.2		ug/L		118	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	28.3		ug/L		113	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	29.5		ug/L		118	62 - 131
1,2-Dichloropropane	ND	E8	25.0	26.8		ug/L		107	68 - 126
1,3-Dichloropropane	ND	E8	25.0	26.2		ug/L		105	68 - 129
2,2-Dichloropropane	ND	E8	25.0	26.7		ug/L		107	60 - 146
1,1-Dichloropropene	ND	E8	25.0	26.4		ug/L		106	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	26.8		ug/L		107	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	24.1		ug/L		96	58 - 136
Ethylbenzene	ND	E8	25.0	27.1		ug/L		108	74 - 134
Hexachlorobutadiene	ND	E8	25.0	23.2		ug/L		93	69 - 150
2-Hexanone	ND	E8 R6	25.0	19.6		ug/L		78	40 - 142
Iodomethane	ND	E8	25.0	29.8		ug/L		119	53 - 150
Isopropylbenzene	ND	E8	25.0	26.3		ug/L		105	80 - 146
4-Isopropyltoluene	ND	E8	25.0	23.9		ug/L		96	70 - 133
Methylene Chloride	ND	E8	25.0	29.2		ug/L		117	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	24.2		ug/L		97	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	28.5		ug/L		114	67 - 138
Naphthalene	ND	E8	25.0	22.2		ug/L		89	67 - 146
N-Propylbenzene	ND	E8	25.0	25.9		ug/L		103	74 - 140
Styrene	ND	E8	25.0	24.7		ug/L		99	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.4		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.8		ug/L		111	63 - 137
Tetrachloroethene	1.3		25.0	27.8		ug/L		106	67 - 131
Toluene	ND	E8	25.0	25.8		ug/L		103	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	21.0		ug/L		84	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	21.4		ug/L		85	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	28.7		ug/L		115	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	24.4		ug/L		97	63 - 132
Trichloroethene	6.7		25.0	33.3		ug/L		106	66 - 132
Trichlorofluoromethane	ND	E8	25.0	28.7		ug/L		115	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	23.7		ug/L		95	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	25.1		ug/L		101	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	24.4		ug/L		98	66 - 137
Vinyl acetate	ND	E8	25.0	26.6		ug/L		106	47 - 150
Vinyl chloride	ND	E8	25.0	26.7		ug/L		107	55 - 146

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

Lab Sample ID: 550-41327-4 MS
Matrix: Water
Analysis Batch: 58715

Client Sample ID: IRA-4-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	ND	E8	50.0	51.0		ug/L		102	68 - 131
Butadiene	ND	E8	25.0	28.3		ug/L		113	10 - 150
Hexane	ND	E8	25.0	27.6		ug/L		110	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	24.6		ug/L		98	58 - 138
o-Xylene	ND	E8	25.0	26.4		ug/L		106	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*92*		*70 - 130*
Toluene-d8 (Surr)	*86*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: 550-41327-4 MSD
Matrix: Water
Analysis Batch: 58715

Client Sample ID: IRA-4-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	14.4		ug/L		58	29 - 139	4	35
Benzene	ND	E8	25.0	26.8		ug/L		107	68 - 131	3	32
Bromobenzene	ND	E8	25.0	30.0		ug/L		120	70 - 130	14	28
Chlorobromomethane	ND	E8	25.0	26.5		ug/L		106	64 - 132	1	35
Dichlorobromomethane	ND	E8	25.0	27.0		ug/L		108	63 - 138	1	31
Bromoform	ND	E8	25.0	28.9		ug/L		116	60 - 128	16	31
Bromomethane	ND	E8	25.0	29.8		ug/L		119	47 - 144	2	35
2-Butanone (MEK)	ND	E8	25.0	28.9		ug/L		116	31 - 143	19	35
n-Butylbenzene	ND	E8	25.0	25.5		ug/L		102	69 - 140	13	32
sec-Butylbenzene	ND	E8	25.0	26.5		ug/L		106	72 - 136	6	33
Carbon disulfide	ND	E8	25.0	30.0		ug/L		120	45 - 150	3	35
Carbon tetrachloride	ND	E8	25.0	27.7		ug/L		111	65 - 147	1	35
Chlorobenzene	ND	E8	25.0	27.2		ug/L		109	70 - 130	0	30
Chloroethane	ND	E8	25.0	26.6		ug/L		106	57 - 139	3	35
Chloroform	ND	E8	25.0	29.2		ug/L		117	63 - 131	1	33
Chloromethane	ND	E8	25.0	26.9		ug/L		108	47 - 134	4	35
2-Chlorotoluene	ND	E8	25.0	29.0		ug/L		116	71 - 131	13	29
4-Chlorotoluene	ND	E8	25.0	28.3		ug/L		113	70 - 130	8	28
Chlorodibromomethane	ND	E8	25.0	26.2		ug/L		105	65 - 134	0	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	29.6		ug/L		119	53 - 145	16	35
Ethylene Dibromide	ND	E8	25.0	27.3		ug/L		109	70 - 130	1	33
Dibromomethane	ND	E8	25.0	25.6		ug/L		102	66 - 136	4	35
1,2-Dichlorobenzene	ND	E8	25.0	28.5		ug/L		114	70 - 130	10	27
1,3-Dichlorobenzene	ND	E8	25.0	25.8		ug/L		103	70 - 130	5	28
1,4-Dichlorobenzene	ND	E8	25.0	27.0		ug/L		108	70 - 130	11	26
Dichlorodifluoromethane	0.97		25.0	26.5		ug/L		102	40 - 148	0	35
1,1-Dichloroethane	ND	E8	25.0	29.5		ug/L		118	62 - 130	6	34
1,2-Dichloroethane	ND	E8	25.0	29.5		ug/L		118	54 - 147	5	35
1,1-Dichloroethene	2.7		25.0	30.8		ug/L		113	57 - 137	4	35
cis-1,2-Dichloroethene	ND	E8	25.0	29.4		ug/L		118	65 - 127	4	34
trans-1,2-Dichloroethene	ND	E8	25.0	29.4		ug/L		117	62 - 131	0	35
1,2-Dichloropropane	ND	E8	25.0	26.9		ug/L		108	68 - 126	0	32

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

Lab Sample ID: 550-41327-4 MSD
Matrix: Water
Analysis Batch: 58715

Client Sample ID: IRA-4-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichloropropane	ND	E8	25.0	28.0		ug/L		112	68 - 129	7	33
2,2-Dichloropropane	ND	E8	25.0	26.8		ug/L		107	60 - 146	0	35
1,1-Dichloropropene	ND	E8	25.0	28.4		ug/L		114	64 - 134	7	34
cis-1,3-Dichloropropene	ND	E8	25.0	27.2		ug/L		109	63 - 135	1	35
trans-1,3-Dichloropropene	ND	E8	25.0	25.3		ug/L		101	58 - 136	5	35
Ethylbenzene	ND	E8	25.0	26.1		ug/L		104	74 - 134	4	32
Hexachlorobutadiene	ND	E8	25.0	26.1		ug/L		104	69 - 150	12	32
2-Hexanone	ND	E8 R6	25.0	20.0		ug/L		80	40 - 142	2	35
Iodomethane	ND	E8	25.0	30.6		ug/L		123	53 - 150	3	35
Isopropylbenzene	ND	E8	25.0	30.0		ug/L		120	80 - 146	13	32
4-Isopropyltoluene	ND	E8	25.0	25.4		ug/L		102	70 - 133	6	32
Methylene Chloride	ND	E8	25.0	30.4		ug/L		121	55 - 133	4	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	26.2		ug/L		105	52 - 143	8	35
Methyl tert-butyl ether	ND	E8	25.0	29.6		ug/L		118	67 - 138	4	21
Naphthalene	ND	E8	25.0	28.9		ug/L		116	67 - 146	26	29
N-Propylbenzene	ND	E8	25.0	28.3		ug/L		113	74 - 140	9	32
Styrene	ND	E8	25.0	25.6		ug/L		102	43 - 144	4	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	26.9		ug/L		108	70 - 130	6	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	30.6		ug/L		123	63 - 137	10	32
Tetrachloroethene	1.3		25.0	26.7		ug/L		101	67 - 131	4	31
Toluene	ND	E8	25.0	26.4		ug/L		106	65 - 138	2	33
1,2,3-Trichlorobenzene	ND	E8	25.0	25.1		ug/L		101	74 - 139	18	26
1,2,4-Trichlorobenzene	ND	E8	25.0	26.2		ug/L		105	74 - 138	20	26
1,1,1-Trichloroethane	ND	E8	25.0	29.8		ug/L		119	64 - 138	4	35
1,1,2-Trichloroethane	ND	E8	25.0	28.2		ug/L		113	63 - 132	15	35
Trichloroethene	6.7		25.0	33.8		ug/L		108	66 - 132	1	29
Trichlorofluoromethane	ND	E8	25.0	28.6		ug/L		115	62 - 150	0	35
1,2,3-Trichloropropane	ND	E8	25.0	27.9		ug/L		111	68 - 130	16	32
1,2,4-Trimethylbenzene	ND	E8	25.0	27.8		ug/L		111	63 - 135	10	31
1,3,5-Trimethylbenzene	ND	E8	25.0	28.3		ug/L		113	66 - 137	15	30
Vinyl acetate	ND	E8	25.0	26.8		ug/L		107	47 - 150	1	35
Vinyl chloride	ND	E8	25.0	28.2		ug/L		113	55 - 146	6	35
Xylenes, Total	ND	E8	50.0	51.6		ug/L		103	68 - 131	1	31
Butadiene	ND	E8	25.0	28.6		ug/L		115	10 - 150	1	35
Hexane	ND	E8	25.0	27.9		ug/L		112	46 - 139	1	35
m-Xylene & p-Xylene	ND	E8	25.0	25.3		ug/L		101	58 - 138	3	29
o-Xylene	ND	E8	25.0	26.3		ug/L		105	66 - 137	0	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

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

Lab Sample ID: MB 550-58909/5
Matrix: Water
Analysis Batch: 58909

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/19/15 09:39	1
Benzene	ND	E8	0.50	0.12	ug/L			03/19/15 09:39	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/19/15 09:39	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/19/15 09:39	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/19/15 09:39	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/19/15 09:39	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/19/15 09:39	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/19/15 09:39	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/19/15 09:39	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/19/15 09:39	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/19/15 09:39	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/19/15 09:39	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/19/15 09:39	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/19/15 09:39	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/19/15 09:39	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/19/15 09:39	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/19/15 09:39	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/19/15 09:39	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/19/15 09:39	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/19/15 09:39	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/19/15 09:39	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/19/15 09:39	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/19/15 09:39	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/19/15 09:39	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/19/15 09:39	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/19/15 09:39	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/19/15 09:39	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/19/15 09:39	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/19/15 09:39	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/19/15 09:39	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/19/15 09:39	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/19/15 09:39	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/19/15 09:39	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/19/15 09:39	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/19/15 09:39	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/19/15 09:39	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/19/15 09:39	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/19/15 09:39	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/19/15 09:39	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/19/15 09:39	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/19/15 09:39	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/19/15 09:39	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/19/15 09:39	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/19/15 09:39	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/19/15 09:39	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/19/15 09:39	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/19/15 09:39	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/19/15 09:39	1

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

Lab Sample ID: MB 550-58909/5
Matrix: Water
Analysis Batch: 58909

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/19/15 09:39	1
Styrene	ND	E8	0.50	0.17	ug/L			03/19/15 09:39	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/19/15 09:39	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/19/15 09:39	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/19/15 09:39	1
Toluene	ND	E8	0.50	0.28	ug/L			03/19/15 09:39	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/19/15 09:39	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/19/15 09:39	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/19/15 09:39	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/19/15 09:39	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/19/15 09:39	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/19/15 09:39	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/19/15 09:39	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/19/15 09:39	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/19/15 09:39	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/19/15 09:39	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/19/15 09:39	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/19/15 09:39	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/19/15 09:39	1
Hexane	ND	E8	2.0	1.6	ug/L			03/19/15 09:39	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/19/15 09:39*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/19/15 09:39*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/19/15 09:39*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/19/15 09:39*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/19/15 09:39*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/19/15 09:39*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*03/19/15 09:39*	*1*
Toluene-d8 (Surr)	*88*		*70 - 130*		*03/19/15 09:39*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*03/19/15 09:39*	*1*

Lab Sample ID: LCS 550-58909/4
Matrix: Water
Analysis Batch: 58909

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	39.0	L5 V1	ug/L		156	38 - 150
Benzene	25.0	24.4		ug/L		98	70 - 130
Bromobenzene	25.0	26.6		ug/L		107	70 - 130
Chlorobromomethane	25.0	23.4		ug/L		94	70 - 130
Dichlorobromomethane	25.0	24.8		ug/L		99	70 - 130
Bromoform	25.0	25.9		ug/L		104	69 - 129
Bromomethane	25.0	24.8		ug/L		99	57 - 138
2-Butanone (MEK)	25.0	31.1		ug/L		124	53 - 150

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

Lab Sample ID: LCS 550-58909/4
Matrix: Water
Analysis Batch: 58909

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	28.3		ug/L		113	70 - 130
sec-Butylbenzene	25.0	27.7		ug/L		111	70 - 130
Carbon disulfide	25.0	26.0		ug/L		104	64 - 145
Carbon tetrachloride	25.0	26.2		ug/L		105	70 - 143
Chlorobenzene	25.0	24.9		ug/L		100	70 - 130
Chloroethane	25.0	23.9		ug/L		95	66 - 131
Chloroform	25.0	25.2		ug/L		101	70 - 130
Chloromethane	25.0	23.3		ug/L		93	56 - 129
2-Chlorotoluene	25.0	27.3		ug/L		109	70 - 130
4-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130
Chlorodibromomethane	25.0	24.7		ug/L		99	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	23.7		ug/L		95	63 - 146
Ethylene Dibromide	25.0	24.0		ug/L		96	70 - 130
Dibromomethane	25.0	24.9		ug/L		100	70 - 130
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
1,3-Dichlorobenzene	25.0	25.9		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
Dichlorodifluoromethane	25.0	24.6		ug/L		98	46 - 144
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	25.7		ug/L		103	66 - 139
1,1-Dichloroethene	25.0	26.5		ug/L		106	63 - 131
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	70 - 130
trans-1,2-Dichloroethene	25.0	25.6		ug/L		103	69 - 127
1,2-Dichloropropane	25.0	24.8		ug/L		99	70 - 130
1,3-Dichloropropane	25.0	25.6		ug/L		102	70 - 130
2,2-Dichloropropane	25.0	33.6		ug/L		134	69 - 139
1,1-Dichloropropene	25.0	26.5		ug/L		106	70 - 130
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	70 - 130
trans-1,3-Dichloropropene	25.0	24.9		ug/L		100	70 - 130
Ethylbenzene	25.0	25.0		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	23.6		ug/L		94	76 - 145
2-Hexanone	25.0	27.1		ug/L		108	55 - 150
Iodomethane	25.0	24.9		ug/L		100	70 - 130
Isopropylbenzene	25.0	28.5		ug/L		114	88 - 141
4-Isopropyltoluene	25.0	26.6		ug/L		106	70 - 130
Methylene Chloride	25.0	22.1		ug/L		88	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142
Methyl tert-butyl ether	25.0	25.5		ug/L		102	70 - 130
Naphthalene	25.0	23.6		ug/L		94	78 - 143
N-Propylbenzene	25.0	27.5		ug/L		110	70 - 130
Styrene	25.0	24.5		ug/L		98	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130
1,1,2,2-Tetrachloroethane	25.0	27.4		ug/L		110	70 - 130
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130
Toluene	25.0	25.4		ug/L		102	70 - 130
1,2,3-Trichlorobenzene	25.0	23.0		ug/L		92	79 - 139
1,2,4-Trichlorobenzene	25.0	22.2		ug/L		89	80 - 137
1,1,1-Trichloroethane	25.0	26.9		ug/L		107	71 - 131

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

Lab Sample ID: LCS 550-58909/4
Matrix: Water
Analysis Batch: 58909

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	70 - 130
Trichloroethene	25.0	24.4		ug/L		98	70 - 130
Trichlorofluoromethane	25.0	26.9		ug/L		107	69 - 150
1,2,3-Trichloropropane	25.0	26.4		ug/L		106	70 - 130
1,2,4-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	25.0	27.5		ug/L		110	70 - 130
Vinyl acetate	25.0	24.7		ug/L		99	67 - 148
Vinyl chloride	25.0	25.4		ug/L		102	65 - 137
Xylenes, Total	50.0	49.6		ug/L		99	70 - 130
Butadiene	25.0	25.6		ug/L		103	12 - 150
Hexane	25.0	29.4		ug/L		118	54 - 132
m-Xylene & p-Xylene	25.0	24.9		ug/L		100	70 - 130
o-Xylene	25.0	24.7		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 550-58909/6
Matrix: Water
Analysis Batch: 58909

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	32.4	V1	ug/L		130	38 - 150	18	35
Benzene	25.0	23.9		ug/L		95	70 - 130	2	20
Bromobenzene	25.0	23.8		ug/L		95	70 - 130	11	20
Chlorobromomethane	25.0	20.9		ug/L		84	70 - 130	11	20
Dichlorobromomethane	25.0	23.1		ug/L		92	70 - 130	7	20
Bromoform	25.0	20.4	R6	ug/L		82	69 - 129	24	20
Bromomethane	25.0	23.9		ug/L		95	57 - 138	4	20
2-Butanone (MEK)	25.0	27.3		ug/L		109	53 - 150	13	35
n-Butylbenzene	25.0	25.9		ug/L		104	70 - 130	9	20
sec-Butylbenzene	25.0	25.5		ug/L		102	70 - 130	8	20
Carbon disulfide	25.0	24.4		ug/L		97	64 - 145	6	33
Carbon tetrachloride	25.0	24.9		ug/L		100	70 - 143	5	20
Chlorobenzene	25.0	23.7		ug/L		95	70 - 130	5	20
Chloroethane	25.0	23.1		ug/L		92	66 - 131	3	20
Chloroform	25.0	23.3		ug/L		93	70 - 130	8	20
Chloromethane	25.0	22.1		ug/L		88	56 - 129	5	20
2-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130	8	20
4-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130	8	20
Chlorodibromomethane	25.0	22.7		ug/L		91	70 - 130	8	20
1,2-Dibromo-3-Chloropropane	25.0	20.2		ug/L		81	63 - 146	16	22
Ethylene Dibromide	25.0	21.8		ug/L		87	70 - 130	9	20
Dibromomethane	25.0	23.4		ug/L		94	70 - 130	6	20
1,2-Dichlorobenzene	25.0	23.7		ug/L		95	70 - 130	8	20
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	3	20

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

Lab Sample ID: LCSD 550-58909/6
Matrix: Water
Analysis Batch: 58909

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	5	20
Dichlorodifluoromethane	25.0	22.5		ug/L		90	46 - 144	9	23
1,1-Dichloroethane	25.0	23.1		ug/L		93	70 - 130	10	20
1,2-Dichloroethane	25.0	23.8		ug/L		95	66 - 139	8	20
1,1-Dichloroethene	25.0	24.0		ug/L		96	63 - 131	10	22
cis-1,2-Dichloroethene	25.0	22.7		ug/L		91	70 - 130	8	20
trans-1,2-Dichloroethene	25.0	23.8		ug/L		95	69 - 127	7	20
1,2-Dichloropropane	25.0	23.5		ug/L		94	70 - 130	5	20
1,3-Dichloropropane	25.0	23.3		ug/L		93	70 - 130	10	20
2,2-Dichloropropane	25.0	34.2		ug/L		137	69 - 139	2	20
1,1-Dichloropropene	25.0	25.2		ug/L		101	70 - 130	5	20
cis-1,3-Dichloropropene	25.0	25.2		ug/L		101	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	22.9		ug/L		92	70 - 130	8	20
Ethylbenzene	25.0	24.2		ug/L		97	70 - 130	3	20
Hexachlorobutadiene	25.0	23.5		ug/L		94	76 - 145	1	20
2-Hexanone	25.0	23.2		ug/L		93	55 - 150	15	35
Iodomethane	25.0	23.2		ug/L		93	70 - 130	7	20
Isopropylbenzene	25.0	25.3		ug/L		101	88 - 141	12	20
4-Isopropyltoluene	25.0	25.3		ug/L		101	70 - 130	5	20
Methylene Chloride	25.0	21.6		ug/L		87	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	19.9		ug/L		80	64 - 142	18	25
Methyl tert-butyl ether	25.0	23.1		ug/L		92	70 - 130	10	20
Naphthalene	25.0	19.4		ug/L		78	78 - 143	19	20
N-Propylbenzene	25.0	25.7		ug/L		103	70 - 130	7	20
Styrene	25.0	24.3		ug/L		97	70 - 130	1	20
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	70 - 130	4	20
1,1,2,2-Tetrachloroethane	25.0	22.6		ug/L		90	70 - 130	19	20
Tetrachloroethene	25.0	24.9		ug/L		99	70 - 130	2	20
Toluene	25.0	24.6		ug/L		98	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	20.4		ug/L		82	79 - 139	12	20
1,2,4-Trichlorobenzene	25.0	20.6		ug/L		82	80 - 137	8	20
1,1,1-Trichloroethane	25.0	24.7		ug/L		99	71 - 131	8	20
1,1,2-Trichloroethane	25.0	23.5		ug/L		94	70 - 130	7	20
Trichloroethene	25.0	24.1		ug/L		97	70 - 130	1	20
Trichlorofluoromethane	25.0	25.4		ug/L		102	69 - 150	5	22
1,2,3-Trichloropropane	25.0	21.8		ug/L		87	70 - 130	19	20
1,2,4-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130	7	20
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 130	5	20
Vinyl acetate	25.0	22.7		ug/L		91	67 - 148	8	22
Vinyl chloride	25.0	24.4		ug/L		98	65 - 137	4	20
Xylenes, Total	50.0	48.3		ug/L		97	70 - 130	3	20
Butadiene	25.0	25.6		ug/L		102	12 - 150	0	35
Hexane	25.0	26.1		ug/L		104	54 - 132	12	28
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	70 - 130	4	20
o-Xylene	25.0	24.3		ug/L		97	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*89*		*70 - 130*

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

Lab Sample ID: LCSD 550-58909/6
Matrix: Water
Analysis Batch: 58909

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 550-41327-5 MS
Matrix: Water
Analysis Batch: 58909

Client Sample ID: IRA-38-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8 L5 V1	25.0	17.6	V1	ug/L		70	29 - 139
Benzene	ND	E8	25.0	23.1		ug/L		92	68 - 131
Bromobenzene	ND	E8	25.0	24.6		ug/L		98	70 - 130
Chlorobromomethane	ND	E8	25.0	22.7		ug/L		91	64 - 132
Dichlorobromomethane	ND	E8	25.0	24.0		ug/L		96	63 - 138
Bromoform	ND	E8 R6	25.0	26.0		ug/L		104	60 - 128
Bromomethane	ND	E8	25.0	22.9		ug/L		91	47 - 144
2-Butanone (MEK)	ND	E8	25.0	23.4		ug/L		94	31 - 143
n-Butylbenzene	ND	E8	25.0	25.0		ug/L		100	69 - 140
sec-Butylbenzene	ND	E8	25.0	25.7		ug/L		103	72 - 136
Carbon disulfide	ND	E8	25.0	24.1		ug/L		97	45 - 150
Carbon tetrachloride	ND	E8	25.0	24.2		ug/L		97	65 - 147
Chlorobenzene	ND	E8	25.0	23.9		ug/L		96	70 - 130
Chloroethane	ND	E8	25.0	22.8		ug/L		91	57 - 139
Chloroform	ND	E8	25.0	24.2		ug/L		97	63 - 131
Chloromethane	ND	E8	25.0	21.8		ug/L		87	47 - 134
2-Chlorotoluene	ND	E8	25.0	25.2		ug/L		101	71 - 131
4-Chlorotoluene	ND	E8	25.0	25.9		ug/L		103	70 - 130
Chlorodibromomethane	ND	E8	25.0	25.5		ug/L		102	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.8		ug/L		99	53 - 145
Ethylene Dibromide	ND	E8	25.0	25.0		ug/L		100	70 - 130
Dibromomethane	ND	E8	25.0	25.5		ug/L		102	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	24.3		ug/L		97	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	24.4		ug/L		98	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	24.7		ug/L		99	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	22.4		ug/L		89	40 - 148
1,1-Dichloroethane	ND	E8	25.0	24.2		ug/L		97	62 - 130
1,2-Dichloroethane	ND	E8	25.0	24.7		ug/L		99	54 - 147
1,1-Dichloroethene	2.8		25.0	27.0		ug/L		97	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	23.1		ug/L		92	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	24.2		ug/L		97	62 - 131
1,2-Dichloropropane	ND	E8	25.0	23.0		ug/L		92	68 - 126
1,3-Dichloropropane	ND	E8	25.0	25.4		ug/L		102	68 - 129
2,2-Dichloropropane	ND	E8	25.0	31.5		ug/L		126	60 - 146
1,1-Dichloropropene	ND	E8	25.0	25.2		ug/L		101	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	25.3		ug/L		101	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	23.3		ug/L		93	58 - 136
Ethylbenzene	ND	E8	25.0	24.2		ug/L		97	74 - 134
Hexachlorobutadiene	ND	E8	25.0	23.6		ug/L		94	69 - 150
2-Hexanone	ND	E8	25.0	22.8		ug/L		91	40 - 142

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

Lab Sample ID: 550-41327-5 MS
Matrix: Water
Analysis Batch: 58909

Client Sample ID: IRA-38-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND	E8	25.0	23.5		ug/L		94	53 - 150
Isopropylbenzene	ND	E8	25.0	24.9		ug/L		100	80 - 146
4-Isopropyltoluene	ND	E8	25.0	24.9		ug/L		99	70 - 133
Methylene Chloride	ND	E8	25.0	21.9		ug/L		88	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	25.1		ug/L		100	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	26.3		ug/L		105	67 - 138
Naphthalene	ND	E8	25.0	23.0		ug/L		92	67 - 146
N-Propylbenzene	ND	E8	25.0	25.6		ug/L		103	74 - 140
Styrene	ND	E8	25.0	24.5		ug/L		98	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	24.9		ug/L		100	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.7		ug/L		111	63 - 137
Tetrachloroethene	ND	E8	25.0	25.8		ug/L		103	67 - 131
Toluene	ND	E8	25.0	23.9		ug/L		96	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	21.6		ug/L		87	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	20.7		ug/L		83	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	24.9		ug/L		100	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	25.1		ug/L		100	63 - 132
Trichloroethene	1.2		25.0	24.7		ug/L		94	66 - 132
Trichlorofluoromethane	ND	E8	25.0	24.9		ug/L		100	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	24.8		ug/L		99	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	25.2		ug/L		101	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	25.4		ug/L		101	66 - 137
Vinyl acetate	ND	E8	25.0	26.7		ug/L		107	47 - 150
Vinyl chloride	ND	E8	25.0	24.2		ug/L		97	55 - 146
Xylenes, Total	ND	E8	50.0	48.0		ug/L		96	68 - 131
Butadiene	ND	E8	25.0	24.8		ug/L		99	10 - 150
Hexane	ND	E8	25.0	25.0		ug/L		100	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	24.2		ug/L		97	58 - 138
o-Xylene	ND	E8	25.0	23.8		ug/L		95	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*91*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 550-41327-5 MSD
Matrix: Water
Analysis Batch: 58909

Client Sample ID: IRA-38-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8 L5 V1	25.0	17.8	V1	ug/L		71	29 - 139	1	35
Benzene	ND	E8	25.0	23.0		ug/L		92	68 - 131	1	32
Bromobenzene	ND	E8	25.0	23.4		ug/L		94	70 - 130	5	28
Chlorobromomethane	ND	E8	25.0	21.5		ug/L		86	64 - 132	5	35
Dichlorobromomethane	ND	E8	25.0	23.6		ug/L		95	63 - 138	1	31
Bromoform	ND	E8 R6	25.0	22.2		ug/L		89	60 - 128	16	31
Bromomethane	ND	E8	25.0	22.1		ug/L		88	47 - 144	3	35
2-Butanone (MEK)	ND	E8	25.0	18.7		ug/L		75	31 - 143	22	35

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

Lab Sample ID: 550-41327-5 MSD
Matrix: Water
Analysis Batch: 58909

Client Sample ID: IRA-38-031015
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene	ND	E8	25.0	23.3		ug/L		93	69 - 140	7	32
sec-Butylbenzene	ND	E8	25.0	22.9		ug/L		92	72 - 136	11	33
Carbon disulfide	ND	E8	25.0	23.2		ug/L		93	45 - 150	4	35
Carbon tetrachloride	ND	E8	25.0	23.6		ug/L		94	65 - 147	3	35
Chlorobenzene	ND	E8	25.0	22.1		ug/L		89	70 - 130	8	30
Chloroethane	ND	E8	25.0	22.1		ug/L		88	57 - 139	3	35
Chloroform	ND	E8	25.0	22.7		ug/L		91	63 - 131	6	33
Chloromethane	ND	E8	25.0	21.3		ug/L		85	47 - 134	2	35
2-Chlorotoluene	ND	E8	25.0	23.0		ug/L		92	71 - 131	9	29
4-Chlorotoluene	ND	E8	25.0	23.8		ug/L		95	70 - 130	8	28
Chlorodibromomethane	ND	E8	25.0	22.2		ug/L		89	65 - 134	14	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	20.8		ug/L		83	53 - 145	18	35
Ethylene Dibromide	ND	E8	25.0	21.0		ug/L		84	70 - 130	17	33
Dibromomethane	ND	E8	25.0	24.3		ug/L		97	66 - 136	5	35
1,2-Dichlorobenzene	ND	E8	25.0	21.8		ug/L		87	70 - 130	11	27
1,3-Dichlorobenzene	ND	E8	25.0	23.2		ug/L		93	70 - 130	5	28
1,4-Dichlorobenzene	ND	E8	25.0	22.0		ug/L		88	70 - 130	12	26
Dichlorodifluoromethane	ND	E8	25.0	21.0		ug/L		84	40 - 148	6	35
1,1-Dichloroethane	ND	E8	25.0	22.7		ug/L		91	62 - 130	6	34
1,2-Dichloroethane	ND	E8	25.0	22.8		ug/L		91	54 - 147	8	35
1,1-Dichloroethene	2.8		25.0	25.4		ug/L		90	57 - 137	6	35
cis-1,2-Dichloroethene	ND	E8	25.0	21.3		ug/L		85	65 - 127	8	34
trans-1,2-Dichloroethene	ND	E8	25.0	23.3		ug/L		93	62 - 131	4	35
1,2-Dichloropropane	ND	E8	25.0	22.5		ug/L		90	68 - 126	2	32
1,3-Dichloropropane	ND	E8	25.0	22.3		ug/L		89	68 - 129	13	33
2,2-Dichloropropane	ND	E8	25.0	28.9		ug/L		116	60 - 146	8	35
1,1-Dichloropropene	ND	E8	25.0	23.6		ug/L		94	64 - 134	7	34
cis-1,3-Dichloropropene	ND	E8	25.0	23.8		ug/L		95	63 - 135	6	35
trans-1,3-Dichloropropene	ND	E8	25.0	22.2		ug/L		89	58 - 136	5	35
Ethylbenzene	ND	E8	25.0	23.1		ug/L		92	74 - 134	4	32
Hexachlorobutadiene	ND	E8	25.0	22.1		ug/L		89	69 - 150	6	32
2-Hexanone	ND	E8	25.0	18.3		ug/L		73	40 - 142	22	35
Iodomethane	ND	E8	25.0	22.3		ug/L		89	53 - 150	5	35
Isopropylbenzene	ND	E8	25.0	23.9		ug/L		96	80 - 146	4	32
4-Isopropyltoluene	ND	E8	25.0	23.3		ug/L		93	70 - 133	6	32
Methylene Chloride	ND	E8	25.0	20.9		ug/L		83	55 - 133	5	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	22.2		ug/L		89	52 - 143	12	35
Methyl tert-butyl ether	ND	E8	25.0	23.5		ug/L		94	67 - 138	11	21
Naphthalene	ND	E8	25.0	21.6		ug/L		86	67 - 146	6	29
N-Propylbenzene	ND	E8	25.0	24.7		ug/L		99	74 - 140	4	32
Styrene	ND	E8	25.0	23.2		ug/L		93	43 - 144	5	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	22.8		ug/L		91	70 - 130	9	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	24.0		ug/L		96	63 - 137	14	32
Tetrachloroethene	ND	E8	25.0	22.3		ug/L		89	67 - 131	14	31
Toluene	ND	E8	25.0	22.4		ug/L		90	65 - 138	7	33
1,2,3-Trichlorobenzene	ND	E8	25.0	19.1		ug/L		76	74 - 139	12	26
1,2,4-Trichlorobenzene	ND	E8	25.0	19.3		ug/L		77	74 - 138	7	26
1,1,1-Trichloroethane	ND	E8	25.0	23.3		ug/L		93	64 - 138	7	35

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

Lab Sample ID: 550-41327-5 MSD — **Client Sample ID: IRA-38-031015**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND	E8	25.0	23.1		ug/L		92	63 - 132	8	35
Trichloroethene	1.2		25.0	24.1		ug/L		91	66 - 132	3	29
Trichlorofluoromethane	ND	E8	25.0	23.4		ug/L		94	62 - 150	6	35
1,2,3-Trichloropropane	ND	E8	25.0	22.7		ug/L		91	68 - 130	9	32
1,2,4-Trimethylbenzene	ND	E8	25.0	22.7		ug/L		91	63 - 135	10	31
1,3,5-Trimethylbenzene	ND	E8	25.0	23.8		ug/L		95	66 - 137	6	30
Vinyl acetate	ND	E8	25.0	25.4		ug/L		102	47 - 150	5	35
Vinyl chloride	ND	E8	25.0	22.8		ug/L		91	55 - 146	6	35
Xylenes, Total	ND	E8	50.0	44.4		ug/L		89	68 - 131	8	31
Butadiene	ND	E8	25.0	23.5		ug/L		94	10 - 150	6	35
Hexane	ND	E8	25.0	25.1		ug/L		100	46 - 139	0	35
m-Xylene & p-Xylene	ND	E8	25.0	21.8		ug/L		87	58 - 138	10	29
o-Xylene	ND	E8	25.0	22.6		ug/L		90	66 - 137	5	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58392/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58392

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/11/15 15:12	1

Lab Sample ID: LCS 550-58392/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.01		mg/L		100	90 - 110

Lab Sample ID: LCSD 550-58392/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.01		mg/L		100	90 - 110	0	20

Lab Sample ID: 550-41379-B-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58392

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.1		4.00	4.69		mg/L		90	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-41379-B-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58392

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.1		4.00	4.90		mg/L		95	80 - 120	5	20

Lab Sample ID: MB 550-58402/66 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/12/15 10:51	1
Chloride	ND	E8	2.0	0.29	mg/L			03/12/15 10:51	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/12/15 10:51	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/12/15 10:51	1

Lab Sample ID: LCS 550-58402/67 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	3.96		mg/L		99	90 - 110
Chloride	20.0	19.7		mg/L		98	90 - 110
Nitrate as N	4.00	4.03		mg/L		101	90 - 110
Sulfate	20.0	20.4		mg/L		102	90 - 110

Lab Sample ID: LCSD 550-58402/68 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	3.88		mg/L		97	90 - 110	2	20
Chloride	20.0	19.8		mg/L		99	90 - 110	1	20
Nitrate as N	4.00	4.02		mg/L		100	90 - 110	0	20
Sulfate	20.0	20.5		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-41260-D-1 MS ^10 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND	E8	40.0	41.2		mg/L		103	80 - 120
Chloride	370	M1	200	612	M1	mg/L		123	80 - 120
Nitrate as N	6.9	D1	40.0	50.0		mg/L		108	80 - 120
Sulfate	330	M1	200	595	M1	mg/L		132	80 - 120

Lab Sample ID: 550-41260-D-1 MSD ^10 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND	E8	40.0	41.0		mg/L		103	80 - 120	0	20
Chloride	370	M1	200	608	M1	mg/L		121	80 - 120	1	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-41260-D-1 MSD ^10 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	6.9	D1	40.0	49.9		mg/L		107	80 - 120	0	20
Sulfate	330	M1	200	592	M1	mg/L		131	80 - 120	0	20

Lab Sample ID: MB 550-59023/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/19/15 20:05	1
Chloride	ND	E8	2.0	0.29	mg/L			03/19/15 20:05	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/19/15 20:05	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/19/15 20:05	1

Lab Sample ID: LCS 550-59204/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	3.93		mg/L		98	90 - 110
Chloride	20.0	19.8		mg/L		99	90 - 110
Nitrate as N	4.00	4.06		mg/L		101	90 - 110
Sulfate	20.0	20.7		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-59204/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	3.95		mg/L		99	90 - 110	0	20
Chloride	20.0	19.8		mg/L		99	90 - 110	0	20
Nitrate as N	4.00	4.05		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.7		mg/L		103	90 - 110	0	20

Lab Sample ID: 550-41207-A-3 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	ND	E8	4.00	3.98		mg/L		99	80 - 120
Chloride	8.0		20.0	27.8		mg/L		99	80 - 120
Nitrate as N	ND	E8	4.00	4.04		mg/L		101	80 - 120
Sulfate	30		20.0	50.4		mg/L		100	80 - 120

Lab Sample ID: 550-41207-A-3 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	ND	E8	4.00	4.05		mg/L		101	80 - 120	2	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-41207-A-3 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.0		20.0	28.1		mg/L		100	80 - 120	1	20
Nitrate as N	ND	E8	4.00	4.10		mg/L		103	80 - 120	2	20
Sulfate	30		20.0	50.7		mg/L		102	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58283/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58461 — **Prep Batch: 58283**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/11/15 11:10	03/12/15 14:21	1
Calcium	ND	E8	2.0	0.014	mg/L		03/11/15 11:10	03/12/15 14:21	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/11/15 11:10	03/12/15 14:21	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/11/15 11:10	03/12/15 14:21	1
Potassium	ND	E8	0.50	0.067	mg/L		03/11/15 11:10	03/12/15 14:21	1
Sodium	0.290	E4	0.50	0.15	mg/L		03/11/15 11:10	03/12/15 14:21	1

Lab Sample ID: LCS 550-58283/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58461 — **Prep Batch: 58283**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	85 - 115
Calcium	21.0	21.2		mg/L		101	85 - 115
Chromium	1.00	1.01		mg/L		101	85 - 115
Magnesium	21.0	21.0		mg/L		100	85 - 115
Potassium	20.0	19.5		mg/L		98	85 - 115
Sodium	20.0	19.9		mg/L		100	85 - 115

Lab Sample ID: LCSD 550-58283/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58461 — **Prep Batch: 58283**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.980		mg/L		98	85 - 115	2	20
Calcium	21.0	21.3		mg/L		101	85 - 115	0	20
Chromium	1.00	0.991		mg/L		99	85 - 115	2	20
Magnesium	21.0	21.0		mg/L		100	85 - 115	0	20
Potassium	20.0	19.5		mg/L		97	85 - 115	0	20
Sodium	20.0	19.8		mg/L		99	85 - 115	1	20

Lab Sample ID: 550-41352-N-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58461 — **Prep Batch: 58283**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.31		1.00	1.32		mg/L		102	70 - 130
Calcium	670	M3	21.0	704	M3	mg/L		179	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-41352-N-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58461 — **Prep Batch: 58283**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium	0.0065	E4	1.00	0.961		mg/L		95	70 - 130		
Magnesium	190	M3	21.0	219	M3	mg/L		114	70 - 130		
Potassium	6.5		20.0	27.0		mg/L		103	70 - 130		
Sodium	180	M3	20.0	195	M3	mg/L		95	70 - 130		

Lab Sample ID: 550-41352-N-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58461 — **Prep Batch: 58283**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.31		1.00	1.31		mg/L		100	70 - 130	1	20
Calcium	670	M3	21.0	665	M3	mg/L		-4	70 - 130	6	20
Chromium	0.0065	E4	1.00	0.951		mg/L		94	70 - 130	1	20
Magnesium	190	M3	21.0	209	M3	mg/L		68	70 - 130	5	20
Potassium	6.5		20.0	27.0		mg/L		103	70 - 130	0	20
Sodium	180	M3	20.0	187	M3	mg/L		53	70 - 130	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-58624/63 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/14/15 04:10	1

Lab Sample ID: LCS 550-58624/62 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	249		mg/L		100	90 - 110

Lab Sample ID: LCSD 550-58624/76 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58624

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	247		mg/L		99	90 - 110	1	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-41238-A-1 DU
Matrix: Water
Analysis Batch: 58624

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	330			318		mg/L				3	20
Bicarbonate Alkalinity as CaCO3	290			274		mg/L				5	20
Carbonate Alkalinity as CaCO3	37			43.7		mg/L				17	20
Alkalinity, Phenolphthalein	18			21.9		mg/L				17	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

GC/MS VOA

Analysis Batch: 58542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-2	IRA-33-031015	Total/NA	Water	8260B	
550-41327-3	IRA-32-031015	Total/NA	Water	8260B	

Analysis Batch: 58543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41237-G-3 MS	Matrix Spike	Total/NA	Water	8260B	
550-41237-G-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
550-41327-1	IRA-39-031015	Total/NA	Water	8260B	
LCS 550-58543/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58543/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58543/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 58715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-4	IRA-4-031015	Total/NA	Water	8260B	
550-41327-4 MS	IRA-4-031015	Total/NA	Water	8260B	
550-41327-4 MSD	IRA-4-031015	Total/NA	Water	8260B	
550-41327-5	IRA-38-031015	Total/NA	Water	8260B	
550-41327-6	TB	Total/NA	Water	8260B	
LCS 550-58715/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58715/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58715/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 58909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-5	IRA-38-031015	Total/NA	Water	8260B	
550-41327-5 MS	IRA-38-031015	Total/NA	Water	8260B	
550-41327-5 MSD	IRA-38-031015	Total/NA	Water	8260B	
LCS 550-58909/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58909/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58909/5	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-2	IRA-33-031015	Total/NA	Water	300.0	
550-41327-3	IRA-32-031015	Total/NA	Water	300.0	
550-41327-5	IRA-38-031015	Total/NA	Water	300.0	
550-41379-B-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-41379-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 550-58392/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58392/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58392/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 58402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41260-D-1 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-41260-D-1 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-41327-1	IRA-39-031015	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 58402 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-4	IRA-4-031015	Total/NA	Water	300.0	
LCS 550-58402/67	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58402/68	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58402/66	Method Blank	Total/NA	Water	300.0	

Filtration Batch: 59023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-59023/1-A	Method Blank	Total/NA	Water	Filtration	

Analysis Batch: 59204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41207-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
550-41207-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-41327-1	IRA-39-031015	Total/NA	Water	300.0	
550-41327-4	IRA-4-031015	Total/NA	Water	300.0	
LCS 550-59204/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-59204/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-59023/1-A	Method Blank	Total/NA	Water	300.0	59023

Metals

Prep Batch: 58283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-1	IRA-39-031015	Total/NA	Water	200.7	
550-41327-2	IRA-33-031015	Total/NA	Water	200.7	
550-41327-3	IRA-32-031015	Total/NA	Water	200.7	
550-41327-4	IRA-4-031015	Total/NA	Water	200.7	
550-41327-5	IRA-38-031015	Total/NA	Water	200.7	
550-41352-N-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-41352-N-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
LCS 550-58283/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58283/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58283/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-1	IRA-39-031015	Total/NA	Water	200.7 Rev 4.4	58283
550-41327-2	IRA-33-031015	Total/NA	Water	200.7 Rev 4.4	58283
550-41327-3	IRA-32-031015	Total/NA	Water	200.7 Rev 4.4	58283
550-41327-4	IRA-4-031015	Total/NA	Water	200.7 Rev 4.4	58283
550-41327-5	IRA-38-031015	Total/NA	Water	200.7 Rev 4.4	58283
550-41352-N-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	58283
550-41352-N-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	58283
LCS 550-58283/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58283
LCSD 550-58283/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58283
MB 550-58283/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58283

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

General Chemistry

Analysis Batch: 58624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41238-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	
550-41327-1	IRA-39-031015	Total/NA	Water	SM 2320B	
550-41327-4	IRA-4-031015	Total/NA	Water	SM 2320B	
LCS 550-58624/62	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-58624/76	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-58624/63	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-39-031015 — Lab Sample ID: 550-41327-1

Date Collected: 03/10/15 12:22 — **Matrix: Water**
Date Received: 03/10/15 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58543	03/15/15 05:04	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 11:46	YAF	TAL PHX
Total/NA	Analysis	300.0		10	59204	03/20/15 00:23	KLH	TAL PHX
Total/NA	Prep	200.7			58283	03/11/15 11:10	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58461	03/12/15 15:05	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58624	03/14/15 05:59	CDC	TAL PHX

Client Sample ID: IRA-33-031015 — Lab Sample ID: 550-41327-2

Date Collected: 03/10/15 08:25 — **Matrix: Water**
Date Received: 03/10/15 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58542	03/15/15 04:41	UT	TAL PHX
Total/NA	Analysis	300.0		1	58392	03/12/15 00:06	YAF	TAL PHX
Total/NA	Prep	200.7			58283	03/11/15 11:10	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58461	03/12/15 15:09	AJC	TAL PHX

Client Sample ID: IRA-32-031015 — Lab Sample ID: 550-41327-3

Date Collected: 03/10/15 09:45 — **Matrix: Water**
Date Received: 03/10/15 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58542	03/15/15 05:12	UT	TAL PHX
Total/NA	Analysis	300.0		1	58392	03/12/15 00:25	YAF	TAL PHX
Total/NA	Prep	200.7			58283	03/11/15 11:10	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58461	03/12/15 15:12	AJC	TAL PHX

Client Sample ID: IRA-4-031015 — Lab Sample ID: 550-41327-4

Date Collected: 03/10/15 13:55 — **Matrix: Water**
Date Received: 03/10/15 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 19:42	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 12:04	YAF	TAL PHX
Total/NA	Analysis	300.0		10	59204	03/20/15 01:18	KLH	TAL PHX
Total/NA	Prep	200.7			58283	03/11/15 11:10	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58461	03/12/15 15:15	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58624	03/14/15 06:12	CDC	TAL PHX

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Client Sample ID: IRA-38-031015

Lab Sample ID: 550-41327-5

Date Collected: 03/10/15 11:10
Matrix: Water
Date Received: 03/10/15 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58909	03/19/15 11:00	UT	TAL PHX
Total/NA	Analysis	8260B		1	58715	03/17/15 21:17	UT	TAL PHX
Total/NA	Analysis	300.0		1	58392	03/12/15 00:43	YAF	TAL PHX
Total/NA	Prep	200.7			58283	03/11/15 11:10	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58461	03/12/15 15:18	AJC	TAL PHX

Client Sample ID: TB

Lab Sample ID: 550-41327-6

Date Collected: 03/10/15 12:23
Matrix: Water
Date Received: 03/10/15 14:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 17:34	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF 1420142030.5.3

TestAmerica Job ID: 550-41327-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

550-41327

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

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3/28/2015

Client Name/Address: AMEC 4600 E Washington Phoenix AZ 85034

Project/PO Number: Miracle Mile WQARF 14201420 30.5.3

Project Manager: Aliang Gu

Phone Number: 480.285.4310

Sampler: Combs/Sargent

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	2320B+ 300 Alkalinity + Anions (Cl, SO4, NO3, Bromide, Alkalinity)	200.7 metals (K, Na, Ca, Mg, Boron, Total Chromium)	8260 LL	300.0 Nitrate	200.7 Total Chromium					Special Instructions
IRA-39-031015	Aq	500ml 250ml 40ml	5	3/10/15	1222	HCl, HNO3	X	X	X							
IRA-33-031015	Aq	250ml 40ml	5	3/10/15	825	HNO3, HCl			X	X	X					
IRA-32-031015	Aq	250ml 40ml	5	3/10/15	945	HNO3, HCl			X	X	X					
IRA-4-031015	Aq	500ml 250ml 40ml	5	3/10/15	1355	HNO3, HCl	X	X	X							ADEQ-97685
IRA-38-031015	Aq	250ml 40ml	5	3/10/15	1110	HNO3, HCl			X	X	X					
TB	Aq	40ml	1	3/10/15	1223	HCl			X							

550-41327 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	3/10/15 1428	[signature]	3-10-15 1428
[signature]	3-10-15 1530	[signature]	
		[signature]	3-11-15 0945

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2.6 (0.4°C)

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41327-1

Login Number: 41327

List Source: TestAmerica Phoenix

List Number: 1

Creator: Gaska, Kristinena

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41397-1
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/28/2015 6:55:03 PM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
V1	CCV recovery was above method acceptance limits. The analyte was not detected in the sample.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
B1	Target analyte detected in method blank at or above the method reporting limit.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
R12	RPD/RSD exceeded the method acceptance limit. Result less than 5 times the PQL..
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-41397-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41397-1

Comments
No additional comments.

Receipt
The samples were received on 3/11/2015 2:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.7º C and 3.1º C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for 4-Bromofluorobenzene and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS will be flagged with an N1 and reported, see batch 58715.

Method(s) 8260B: The method blank for batch 58715 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, and Naphthalene above the reporting limit (RL). All of these compounds were non-detect in the samples and will be reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41397-1	IRA-25-031115	Water	03/11/15 08:43	03/11/15 14:15
550-41397-2	IRA-8-031115	Water	03/11/15 09:45	03/11/15 14:15
550-41397-3	IRA-6-031115	Water	03/11/15 10:55	03/11/15 14:15
550-41397-4	IRA-12-210-031115	Water	03/11/15 12:05	03/11/15 14:15
550-41397-5	IRA-12-210--031115 DUP	Water	03/11/15 12:05	03/11/15 14:15
550-41397-6	IRA-13-210-031115	Water	03/11/15 13:35	03/11/15 14:15
550-41397-7	IRA-13-210-031115 DUP	Water	03/11/15 13:35	03/11/15 14:15
550-41397-8	TB	Water	03/11/15 13:36	03/11/15 14:15

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-25-031115 — Lab Sample ID: 550-41397-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.3		0.50	0.23	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.70		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	4.9		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	8.1		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.057		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-8-031115 — Lab Sample ID: 550-41397-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.24	E4	0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	2.0		0.50	0.23	ug/L	1		8260B	Total/NA
Trichloroethene	4.3		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	5.7		0.10	0.051	mg/L	1		300.0	Total/NA
Chloride	110	D2	20	2.9	mg/L	10		300.0	Total/NA
Bromide	0.43	E4	0.50	0.051	mg/L	1		300.0	Total/NA
Sulfate	270	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.17		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	72		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.12		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	4.2		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.8		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	170		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	120		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	120		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-6-031115 — Lab Sample ID: 550-41397-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.7		0.50	0.23	ug/L	1		8260B	Total/NA
Trichloroethene	1.3		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	7.1		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.0076	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-12-210-031115 — Lab Sample ID: 550-41397-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.14	E4	0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.6		0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.25	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.0		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	1.6		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	11		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.030		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-12-210--031115 DUP — Lab Sample ID: 550-41397-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.6		0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.27	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.2		0.50	0.18	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Phoenix

Client Sample ID: IRA-12-210--031115 DUP (Continued) — Lab Sample ID: 550-41397-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.6		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	12		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.034		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-13-210-031115 — Lab Sample ID: 550-41397-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.1		0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.24	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.56		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	1.7		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	12		0.10	0.051	mg/L	1		300.0	Total/NA
Chloride	170	D2	20	2.9	mg/L	10		300.0	Total/NA
Bromide	0.75		0.50	0.051	mg/L	1		300.0	Total/NA
Sulfate	270	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.051		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	180		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.020		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	16		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.4		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	79		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-13-210-031115 DUP — Lab Sample ID: 550-41397-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.1		0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.25	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.62		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	1.7		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	12		0.10	0.051	mg/L	1		300.0	Total/NA
Chloride	170	D2	20	2.9	mg/L	10		300.0	Total/NA
Bromide	0.77		0.50	0.051	mg/L	1		300.0	Total/NA
Sulfate	270	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.051		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	190		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.020		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	16		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.5		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	80		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41397-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-25-031115
Date Collected: 03/11/15 08:43
Date Received: 03/11/15 14:15

Lab Sample ID: 550-41397-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 23:56	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 23:56	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 23:56	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 23:56	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 23:56	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 23:56	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 23:56	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 23:56	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 23:56	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 23:56	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 23:56	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 23:56	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 23:56	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 23:56	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 23:56	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 23:56	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 23:56	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 23:56	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 23:56	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 23:56	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 23:56	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 23:56	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 23:56	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 23:56	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 23:56	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 23:56	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 23:56	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 23:56	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 23:56	1
1,1-Dichloroethene	**2.3**		0.50	0.23	ug/L			03/17/15 23:56	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 23:56	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 23:56	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 23:56	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 23:56	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 23:56	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 23:56	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 23:56	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 23:56	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 23:56	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 23:56	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 23:56	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 23:56	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 23:56	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 23:56	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 23:56	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 23:56	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 23:56	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 23:56	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 23:56	1

Client Sample ID: IRA-25-031115

Lab Sample ID: 550-41397-1

Date Collected: 03/11/15 08:43
Matrix: Water
Date Received: 03/11/15 14:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 23:56	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 23:56	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 23:56	1
Tetrachloroethene	**0.70**		0.50	0.18	ug/L			03/17/15 23:56	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 23:56	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 23:56	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 23:56	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 23:56	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 23:56	1
Trichloroethene	**4.9**		0.50	0.24	ug/L			03/17/15 23:56	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 23:56	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 23:56	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 23:56	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 23:56	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 23:56	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 23:56	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 23:56	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 23:56	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 23:56	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 23:56	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 23:56*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 23:56*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 23:56*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 23:56*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 23:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*03/17/15 23:56*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*03/17/15 23:56*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*03/17/15 23:56*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**8.1**		0.10	0.051	mg/L			03/12/15 17:03	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.057**		0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:34	1

Client Sample ID: IRA-8-031115

Lab Sample ID: 550-41397-2

Date Collected: 03/11/15 09:45
Matrix: Water
Date Received: 03/11/15 14:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 00:27	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 00:27	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 00:27	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 00:27	1

Client Sample ID: IRA-8-031115
Date Collected: 03/11/15 09:45
Date Received: 03/11/15 14:15

Lab Sample ID: 550-41397-2
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 00:27	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 00:27	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 00:27	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 00:27	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 00:27	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 00:27	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 00:27	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 00:27	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 00:27	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 00:27	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 00:27	1
Chloroform	**0.24**	**E4**	0.50	0.13	ug/L			03/18/15 00:27	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 00:27	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 00:27	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 00:27	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 00:27	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 00:27	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 00:27	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 00:27	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 00:27	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 00:27	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 00:27	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 00:27	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 00:27	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 00:27	1
1,1-Dichloroethene	**2.0**		0.50	0.23	ug/L			03/18/15 00:27	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 00:27	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/18/15 00:27	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 00:27	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 00:27	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 00:27	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 00:27	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 00:27	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 00:27	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 00:27	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 00:27	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/18/15 00:27	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 00:27	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 00:27	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 00:27	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 00:27	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 00:27	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 00:27	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/18/15 00:27	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 00:27	1
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 00:27	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 00:27	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 00:27	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/18/15 00:27	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-8-031115

Date Collected: 03/11/15 09:45
Date Received: 03/11/15 14:15

Lab Sample ID: 550-41397-2

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 00:27	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 00:27	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 00:27	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 00:27	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 00:27	1
Trichloroethene	**4.3**		0.50	0.24	ug/L			03/18/15 00:27	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 00:27	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 00:27	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 00:27	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 00:27	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 00:27	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 00:27	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 00:27	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 00:27	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 00:27	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 00:27	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 00:27*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 00:27*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 00:27*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 00:27*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 00:27*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*03/18/15 00:27*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/18/15 00:27*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*03/18/15 00:27*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**5.7**		0.10	0.051	mg/L			03/12/15 17:22	1
Chloride	**110**	**D2**	20	2.9	mg/L			03/20/15 05:54	10
Bromide	**0.43**	**E4**	0.50	0.051	mg/L			03/12/15 17:22	1
Sulfate	**270**	**D2**	20	2.1	mg/L			03/20/15 05:54	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.17**		0.050	0.0049	mg/L		03/12/15 11:47	03/18/15 12:37	1
Calcium	**72**		2.0	0.014	mg/L		03/12/15 11:47	03/18/15 12:37	1
Chromium	**0.12**		0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:37	1
Magnesium	**4.2**		2.0	0.017	mg/L		03/12/15 11:47	03/18/15 12:37	1
Potassium	**2.8**		0.50	0.067	mg/L		03/12/15 11:47	03/18/15 12:37	1
Sodium	**170**		0.50	0.15	mg/L		03/12/15 11:47	03/18/15 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**120**		6.0	6.0	mg/L			03/18/15 22:17	1
Bicarbonate Alkalinity as CaCO3	**120**		6.0	6.0	mg/L			03/18/15 22:17	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 22:17	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/18/15 22:17	1

Client Sample ID: IRA-8-031115

Lab Sample ID: 550-41397-2

Date Collected: 03/11/15 09:45

Matrix: Water

Date Received: 03/11/15 14:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 22:17	1

Client Sample ID: IRA-6-031115

Lab Sample ID: 550-41397-3

Date Collected: 03/11/15 10:55

Matrix: Water

Date Received: 03/11/15 14:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 00:59	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 00:59	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 00:59	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 00:59	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 00:59	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 00:59	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 00:59	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 00:59	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 00:59	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 00:59	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 00:59	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 00:59	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 00:59	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 00:59	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 00:59	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 00:59	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 00:59	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 00:59	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 00:59	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 00:59	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 00:59	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 00:59	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 00:59	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 00:59	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 00:59	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 00:59	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 00:59	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 00:59	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 00:59	1
1,1-Dichloroethene	**1.7**		0.50	0.23	ug/L			03/18/15 00:59	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 00:59	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/18/15 00:59	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 00:59	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 00:59	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 00:59	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 00:59	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 00:59	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 00:59	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 00:59	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 00:59	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/18/15 00:59	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 00:59	1

Client Sample ID: IRA-6-031115

Lab Sample ID: 550-41397-3

Date Collected: 03/11/15 10:55

Matrix: Water

Date Received: 03/11/15 14:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 00:59	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 00:59	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 00:59	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 00:59	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 00:59	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/18/15 00:59	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 00:59	1
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 00:59	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 00:59	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 00:59	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/18/15 00:59	1
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 00:59	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 00:59	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 00:59	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 00:59	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 00:59	1
Trichloroethene	**1.3**		0.50	0.24	ug/L			03/18/15 00:59	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 00:59	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 00:59	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 00:59	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 00:59	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 00:59	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 00:59	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 00:59	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 00:59	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 00:59	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 00:59	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 00:59*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 00:59*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 00:59*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 00:59*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 00:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*03/18/15 00:59*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*03/18/15 00:59*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/18/15 00:59*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**7.1**		0.10	0.051	mg/L			03/12/15 17:59	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.0076**	**E4**	0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:40	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-12-210-031115

Lab Sample ID: 550-41397-4

Date Collected: 03/11/15 12:05
Matrix: Water
Date Received: 03/11/15 14:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 01:31	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 01:31	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 01:31	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 01:31	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 01:31	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 01:31	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 01:31	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 01:31	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 01:31	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 01:31	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 01:31	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 01:31	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 01:31	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 01:31	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 01:31	1
Chloroform	**0.14**	**E4**	0.50	0.13	ug/L			03/18/15 01:31	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 01:31	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 01:31	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 01:31	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 01:31	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 01:31	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 01:31	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 01:31	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 01:31	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 01:31	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 01:31	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 01:31	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 01:31	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 01:31	1
1,1-Dichloroethene	**1.6**		0.50	0.23	ug/L			03/18/15 01:31	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 01:31	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/18/15 01:31	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 01:31	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 01:31	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 01:31	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 01:31	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 01:31	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 01:31	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 01:31	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 01:31	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/18/15 01:31	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 01:31	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 01:31	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 01:31	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 01:31	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 01:31	1
Methyl tert-butyl ether	**0.25**	**E4**	0.50	0.22	ug/L			03/18/15 01:31	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/18/15 01:31	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 01:31	1

Client Sample ID: IRA-12-210-031115

Lab Sample ID: 550-41397-4

Date Collected: 03/11/15 12:05
Matrix: Water
Date Received: 03/11/15 14:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 01:31	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 01:31	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 01:31	1
Tetrachloroethene	**1.0**		0.50	0.18	ug/L			03/18/15 01:31	1
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 01:31	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 01:31	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 01:31	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 01:31	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 01:31	1
Trichloroethene	**1.6**		0.50	0.24	ug/L			03/18/15 01:31	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 01:31	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 01:31	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 01:31	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 01:31	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 01:31	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 01:31	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 01:31	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 01:31	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 01:31	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 01:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 01:31*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 01:31*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 01:31*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 01:31*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 01:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*03/18/15 01:31*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/18/15 01:31*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*03/18/15 01:31*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**11**		0.10	0.051	mg/L			03/12/15 18:17	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.030**		0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:43	1

Client Sample ID: IRA-12-210--031115 DUP

Lab Sample ID: 550-41397-5

Date Collected: 03/11/15 12:05
Matrix: Water
Date Received: 03/11/15 14:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 02:03	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 02:03	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 02:03	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 02:03	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-12-210--031115 DUP
Date Collected: 03/11/15 12:05
Date Received: 03/11/15 14:15

Lab Sample ID: 550-41397-5
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 02:03	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 02:03	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 02:03	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 02:03	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 02:03	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 02:03	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 02:03	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 02:03	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 02:03	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 02:03	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 02:03	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 02:03	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 02:03	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 02:03	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 02:03	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 02:03	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 02:03	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 02:03	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 02:03	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 02:03	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 02:03	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 02:03	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 02:03	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 02:03	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 02:03	1
1,1-Dichloroethene	**1.6**		0.50	0.23	ug/L			03/18/15 02:03	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 02:03	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/18/15 02:03	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 02:03	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 02:03	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 02:03	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 02:03	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 02:03	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 02:03	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 02:03	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 02:03	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/18/15 02:03	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 02:03	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 02:03	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 02:03	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 02:03	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 02:03	1
Methyl tert-butyl ether	**0.27**	**E4**	0.50	0.22	ug/L			03/18/15 02:03	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/18/15 02:03	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 02:03	1
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 02:03	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 02:03	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 02:03	1
Tetrachloroethene	**1.2**		0.50	0.18	ug/L			03/18/15 02:03	1

Client Sample ID: IRA-12-210--031115 DUP

Lab Sample ID: 550-41397-5

Date Collected: 03/11/15 12:05
Matrix: Water
Date Received: 03/11/15 14:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 02:03	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 02:03	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 02:03	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 02:03	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 02:03	1
Trichloroethene	**1.6**		0.50	0.24	ug/L			03/18/15 02:03	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 02:03	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 02:03	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 02:03	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 02:03	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 02:03	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 02:03	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 02:03	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 02:03	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 02:03	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 02:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 02:03*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 02:03*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 02:03*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 02:03*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 02:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*03/18/15 02:03*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/18/15 02:03*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/18/15 02:03*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**12**		0.10	0.051	mg/L			03/12/15 18:35	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.034**		0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:47	1

Client Sample ID: IRA-13-210-031115

Lab Sample ID: 550-41397-6

Date Collected: 03/11/15 13:35
Matrix: Water
Date Received: 03/11/15 14:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 20:56	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 20:56	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 20:56	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 20:56	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 20:56	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 20:56	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 20:56	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 20:56	1

Client Sample ID: IRA-13-210-031115
Date Collected: 03/11/15 13:35
Date Received: 03/11/15 14:15

Lab Sample ID: 550-41397-6
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 20:56	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 20:56	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 20:56	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 20:56	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 20:56	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 20:56	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 20:56	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 20:56	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 20:56	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 20:56	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 20:56	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 20:56	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 20:56	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 20:56	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 20:56	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 20:56	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 20:56	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 20:56	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 20:56	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 20:56	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 20:56	1
1,1-Dichloroethene	**2.1**		0.50	0.23	ug/L			03/17/15 20:56	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 20:56	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 20:56	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 20:56	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 20:56	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 20:56	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 20:56	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 20:56	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 20:56	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 20:56	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 20:56	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 20:56	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 20:56	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 20:56	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 20:56	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 20:56	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 20:56	1
Methyl tert-butyl ether	**0.24**	**E4**	0.50	0.22	ug/L			03/17/15 20:56	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 20:56	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 20:56	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 20:56	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 20:56	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 20:56	1
Tetrachloroethene	**0.56**		0.50	0.18	ug/L			03/17/15 20:56	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 20:56	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 20:56	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 20:56	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 20:56	1

Client Sample ID: IRA-13-210-031115

Lab Sample ID: 550-41397-6

Date Collected: 03/11/15 13:35

Matrix: Water

Date Received: 03/11/15 14:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 20:56	1
Trichloroethene	**1.7**		0.50	0.24	ug/L			03/17/15 20:56	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 20:56	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 20:56	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 20:56	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 20:56	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 20:56	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 20:56	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 20:56	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 20:56	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 20:56	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 20:56*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 20:56*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 20:56*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 20:56*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 20:56*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/17/15 20:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*03/17/15 20:56*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/17/15 20:56*	*1*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*		*03/17/15 20:56*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**12**		0.10	0.051	mg/L			03/12/15 18:54	1
Chloride	**170**	**D2**	20	2.9	mg/L			03/20/15 06:12	10
Bromide	**0.75**		0.50	0.051	mg/L			03/12/15 18:54	1
Sulfate	**270**	**D2**	20	2.1	mg/L			03/20/15 06:12	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.051**		0.050	0.0049	mg/L		03/12/15 11:47	03/18/15 12:50	1
Calcium	**180**		2.0	0.014	mg/L		03/12/15 11:47	03/18/15 12:50	1
Chromium	**0.020**		0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:50	1
Magnesium	**16**		2.0	0.017	mg/L		03/12/15 11:47	03/18/15 12:50	1
Potassium	**3.4**		0.50	0.067	mg/L		03/12/15 11:47	03/18/15 12:50	1
Sodium	**79**		0.50	0.15	mg/L		03/12/15 11:47	03/18/15 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/18/15 22:29	1
Bicarbonate Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/18/15 22:29	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 22:29	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/18/15 22:29	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 22:29	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-13-210-031115 DUP

Lab Sample ID: 550-41397-7

Date Collected: 03/11/15 13:35
Matrix: Water
Date Received: 03/11/15 14:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 22:28	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 22:28	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 22:28	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 22:28	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 22:28	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 22:28	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 22:28	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 22:28	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:28	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 22:28	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 22:28	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 22:28	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 22:28	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 22:28	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 22:28	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 22:28	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 22:28	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 22:28	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 22:28	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 22:28	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 22:28	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 22:28	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 22:28	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 22:28	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 22:28	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 22:28	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:28	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 22:28	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 22:28	1
1,1-Dichloroethene	**2.1**		0.50	0.23	ug/L			03/17/15 22:28	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 22:28	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 22:28	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 22:28	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 22:28	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 22:28	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 22:28	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 22:28	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 22:28	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 22:28	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 22:28	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 22:28	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 22:28	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 22:28	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 22:28	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 22:28	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 22:28	1
Methyl tert-butyl ether	**0.25**	**E4**	0.50	0.22	ug/L			03/17/15 22:28	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 22:28	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:28	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-13-210-031115 DUP

Lab Sample ID: 550-41397-7

Date Collected: 03/11/15 13:35
Matrix: Water
Date Received: 03/11/15 14:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 22:28	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 22:28	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 22:28	1
Tetrachloroethene	**0.62**		0.50	0.18	ug/L			03/17/15 22:28	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 22:28	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 22:28	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 22:28	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:28	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 22:28	1
Trichloroethene	**1.7**		0.50	0.24	ug/L			03/17/15 22:28	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:28	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 22:28	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 22:28	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:28	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 22:28	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 22:28	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 22:28	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 22:28	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 22:28	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 22:28*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 22:28*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 22:28*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 22:28*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 22:28*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/17/15 22:28*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*03/17/15 22:28*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*03/17/15 22:28*	*1*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*		*03/17/15 22:28*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**12**		0.10	0.051	mg/L			03/12/15 19:12	1
Chloride	**170**	**D2**	20	2.9	mg/L			03/20/15 06:31	10
Bromide	**0.77**		0.50	0.051	mg/L			03/12/15 19:12	1
Sulfate	**270**	**D2**	20	2.1	mg/L			03/20/15 06:31	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.051**		0.050	0.0049	mg/L		03/12/15 11:47	03/18/15 12:53	1
Calcium	**190**		2.0	0.014	mg/L		03/12/15 11:47	03/18/15 12:53	1
Chromium	**0.020**		0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:53	1
Magnesium	**16**		2.0	0.017	mg/L		03/12/15 11:47	03/18/15 12:53	1
Potassium	**3.5**		0.50	0.067	mg/L		03/12/15 11:47	03/18/15 12:53	1
Sodium	**80**		0.50	0.15	mg/L		03/12/15 11:47	03/18/15 12:53	1

Client Sample ID: IRA-13-210-031115 DUP

Lab Sample ID: 550-41397-7

Date Collected: 03/11/15 13:35
Matrix: Water
Date Received: 03/11/15 14:15

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/18/15 22:41	1
Bicarbonate Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/18/15 22:41	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 22:41	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/18/15 22:41	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 22:41	1

Client Sample ID: TB

Lab Sample ID: 550-41397-8

Date Collected: 03/11/15 13:36
Matrix: Water
Date Received: 03/11/15 14:15

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 19:54	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 19:54	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 19:54	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 19:54	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 19:54	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 19:54	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 19:54	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 19:54	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:54	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 19:54	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 19:54	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 19:54	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 19:54	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 19:54	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 19:54	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 19:54	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 19:54	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 19:54	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 19:54	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 19:54	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 19:54	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 19:54	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 19:54	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 19:54	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 19:54	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 19:54	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:54	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 19:54	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 19:54	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 19:54	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 19:54	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 19:54	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 19:54	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 19:54	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 19:54	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 19:54	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 19:54	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 19:54	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: TB

Lab Sample ID: 550-41397-8

Date Collected: 03/11/15 13:36
Matrix: Water
Date Received: 03/11/15 14:15

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 19:54	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 19:54	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 19:54	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 19:54	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 19:54	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 19:54	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 19:54	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 19:54	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 19:54	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 19:54	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:54	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 19:54	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 19:54	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 19:54	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 19:54	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 19:54	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 19:54	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 19:54	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:54	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 19:54	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 19:54	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:54	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 19:54	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 19:54	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:54	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 19:54	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 19:54	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 19:54	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 19:54	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 19:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 19:54*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 19:54*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 19:54*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 19:54*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 19:54*	*1*
2-ethoxy-2-methyl butane TIC	*ND*	*E8 T4*	*ug/L*			*919-94-8*		*03/17/15 19:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*03/17/15 19:54*	*1*
Toluene-d8 (Surr)	*88*		*70 - 130*		*03/17/15 19:54*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*03/17/15 19:54*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41327-E-4 MS	Matrix Spike	92	86	84
550-41327-E-4 MSD	Matrix Spike Duplicate	90	89	84
550-41397-1	IRA-25-031115	98	95	89
550-41397-2	IRA-8-031115	97	89	86
550-41397-3	IRA-6-031115	96	95	87
550-41397-4	IRA-12-210-031115	99	96	92
550-41397-5	IRA-12-210--031115 DUP	102	96	87
550-41397-6	IRA-13-210-031115	97	89	80
550-41397-6 MS	IRA-13-210-031115	103	105	104
550-41397-6 MSD	IRA-13-210-031115	107	104	97
550-41397-7	IRA-13-210-031115 DUP	100	90	79
550-41397-8	TB	96	88	83
LCS 550-58715/4	Lab Control Sample	81	83	84
LCS 550-58750/3	Lab Control Sample	99	102	100
LCSD 550-58715/5	Lab Control Sample Dup	86	84	75
LCSD 550-58750/4	Lab Control Sample Dup	101	107	94
MB 550-58715/6	Method Blank	97	95	88
MB 550-58750/5	Method Blank	98	85	82

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 16:30	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 16:30	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 16:30	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 16:30	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 16:30	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 16:30	1
n-Butylbenzene	0.645	B1	0.50	0.21	ug/L			03/17/15 16:30	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 16:30	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 16:30	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 16:30	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 16:30	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 16:30	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 16:30	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
1,2-Dichlorobenzene	0.238	E4	0.50	0.22	ug/L			03/17/15 16:30	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 16:30	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 16:30	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 16:30	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 16:30	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 16:30	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 16:30	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 16:30	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Methylene Chloride	0.670	E4	1.0	0.67	ug/L			03/17/15 16:30	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 16:30	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
Naphthalene	3.06	B1	2.5	0.51	ug/L			03/17/15 16:30	1

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

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 16:30	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 16:30	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 16:30	1
1,2,3-Trichlorobenzene	1.63	B1	1.0	0.45	ug/L			03/17/15 16:30	1
1,2,4-Trichlorobenzene	1.16	B1	1.0	0.32	ug/L			03/17/15 16:30	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 16:30	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 16:30	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 16:30	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 16:30	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 16:30	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 16:30	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 16:30	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 16:30*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 16:30*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 16:30*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 16:30*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 16:30*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*03/17/15 16:30*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*03/17/15 16:30*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*03/17/15 16:30*	*1*

Lab Sample ID: LCS 550-58715/4
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	18.5		ug/L		74	38 - 150
Benzene	25.0	26.6		ug/L		106	70 - 130
Bromobenzene	25.0	26.3		ug/L		105	70 - 130
Chlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Dichlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Bromoform	25.0	24.7		ug/L		99	69 - 129
Bromomethane	25.0	28.6		ug/L		114	57 - 138
2-Butanone (MEK)	25.0	31.5		ug/L		126	53 - 150

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

Lab Sample ID: LCS 550-58715/4
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	27.1		ug/L		108	70 - 130
sec-Butylbenzene	25.0	26.8		ug/L		107	70 - 130
Carbon disulfide	25.0	29.3		ug/L		117	64 - 145
Carbon tetrachloride	25.0	28.2		ug/L		113	70 - 143
Chlorobenzene	25.0	28.4		ug/L		114	70 - 130
Chloroethane	25.0	27.8		ug/L		111	66 - 131
Chloroform	25.0	27.7		ug/L		111	70 - 130
Chloromethane	25.0	27.0		ug/L		108	56 - 129
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130
4-Chlorotoluene	25.0	28.5		ug/L		114	70 - 130
Chlorodibromomethane	25.0	28.4		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.1		ug/L		105	63 - 146
Ethylene Dibromide	25.0	28.2		ug/L		113	70 - 130
Dibromomethane	25.0	23.5		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144
1,1-Dichloroethane	25.0	28.3		ug/L		113	70 - 130
1,2-Dichloroethane	25.0	25.7		ug/L		103	66 - 139
1,1-Dichloroethene	25.0	27.8		ug/L		111	63 - 131
cis-1,2-Dichloroethene	25.0	29.4		ug/L		117	70 - 130
trans-1,2-Dichloroethene	25.0	29.1		ug/L		116	69 - 127
1,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 130
1,3-Dichloropropane	25.0	28.2		ug/L		113	70 - 130
2,2-Dichloropropane	25.0	31.1		ug/L		125	69 - 139
1,1-Dichloropropene	25.0	27.0		ug/L		108	70 - 130
cis-1,3-Dichloropropene	25.0	28.9		ug/L		116	70 - 130
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
Ethylbenzene	25.0	28.4		ug/L		114	70 - 130
Hexachlorobutadiene	25.0	22.9		ug/L		92	76 - 145
2-Hexanone	25.0	31.8		ug/L		127	55 - 150
Iodomethane	25.0	28.9		ug/L		115	70 - 130
Isopropylbenzene	25.0	27.3		ug/L		109	88 - 141
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130
Methylene Chloride	25.0	27.9		ug/L		112	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142
Methyl tert-butyl ether	25.0	27.1		ug/L		109	70 - 130
Naphthalene	25.0	26.3		ug/L		105	78 - 143
N-Propylbenzene	25.0	27.5		ug/L		110	70 - 130
Styrene	25.0	26.7		ug/L		107	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.3		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.2		ug/L		113	70 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Toluene	25.0	25.7		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 139
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	80 - 137
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	71 - 131

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

Lab Sample ID: LCS 550-58715/4
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130
Trichloroethene	25.0	26.5		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	29.0		ug/L		116	69 - 150
1,2,3-Trichloropropane	25.0	26.2		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	25.0	26.3		ug/L		105	70 - 130
1,3,5-Trimethylbenzene	25.0	27.2		ug/L		109	70 - 130
Vinyl acetate	25.0	26.7		ug/L		107	67 - 148
Vinyl chloride	25.0	27.7		ug/L		111	65 - 137
Xylenes, Total	50.0	56.3		ug/L		113	70 - 130
Butadiene	25.0	29.3		ug/L		117	12 - 150
Hexane	25.0	27.3		ug/L		109	54 - 132
m-Xylene & p-Xylene	25.0	27.9		ug/L		111	70 - 130
o-Xylene	25.0	28.4		ug/L		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*81*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: LCSD 550-58715/5
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	20.9		ug/L		84	38 - 150	12	35
Benzene	25.0	26.3		ug/L		105	70 - 130	1	20
Bromobenzene	25.0	26.7		ug/L		107	70 - 130	1	20
Chlorobromomethane	25.0	25.0		ug/L		100	70 - 130	4	20
Dichlorobromomethane	25.0	26.8		ug/L		107	70 - 130	3	20
Bromoform	25.0	24.7		ug/L		99	69 - 129	0	20
Bromomethane	25.0	29.3		ug/L		117	57 - 138	3	20
2-Butanone (MEK)	25.0	31.1		ug/L		124	53 - 150	1	35
n-Butylbenzene	25.0	25.0		ug/L		100	70 - 130	8	20
sec-Butylbenzene	25.0	25.9		ug/L		103	70 - 130	4	20
Carbon disulfide	25.0	30.4		ug/L		122	64 - 145	4	33
Carbon tetrachloride	25.0	27.4		ug/L		109	70 - 143	3	20
Chlorobenzene	25.0	26.4		ug/L		106	70 - 130	7	20
Chloroethane	25.0	27.6		ug/L		110	66 - 131	1	20
Chloroform	25.0	28.4		ug/L		114	70 - 130	3	20
Chloromethane	25.0	27.3		ug/L		109	56 - 129	1	20
2-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	3	20
4-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	7	20
Chlorodibromomethane	25.0	24.5		ug/L		98	70 - 130	15	20
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	63 - 146	3	22
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130	7	20
Dibromomethane	25.0	24.4		ug/L		98	70 - 130	4	20
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	3	20
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	4	20

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

Lab Sample ID: LCSD 550-58715/5
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	3	20
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144	0	23
1,1-Dichloroethane	25.0	30.1		ug/L		121	70 - 130	6	20
1,2-Dichloroethane	25.0	27.2		ug/L		109	66 - 139	6	20
1,1-Dichloroethene	25.0	28.7		ug/L		115	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	28.7		ug/L		115	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	30.0		ug/L		120	69 - 127	3	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	3	20
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	10	20
2,2-Dichloropropane	25.0	32.4		ug/L		130	69 - 139	4	20
1,1-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130	15	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 130	2	20
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130	14	20
Hexachlorobutadiene	25.0	22.3		ug/L		89	76 - 145	3	20
2-Hexanone	25.0	21.3	R6	ug/L		85	55 - 150	39	35
Iodomethane	25.0	30.3		ug/L		121	70 - 130	5	20
Isopropylbenzene	25.0	25.7		ug/L		103	88 - 141	6	20
4-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 130	3	20
Methylene Chloride	25.0	28.4		ug/L		114	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142	0	25
Methyl tert-butyl ether	25.0	28.9		ug/L		116	70 - 130	6	20
Naphthalene	25.0	26.1		ug/L		104	78 - 143	1	20
N-Propylbenzene	25.0	26.7		ug/L		107	70 - 130	3	20
Styrene	25.0	23.3		ug/L		93	70 - 130	13	20
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	14	20
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	70 - 130	1	20
Tetrachloroethene	25.0	25.8		ug/L		103	70 - 130	7	20
Toluene	25.0	26.3		ug/L		105	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	21.6		ug/L		87	79 - 139	15	20
1,2,4-Trichlorobenzene	25.0	23.1		ug/L		93	80 - 137	11	20
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	71 - 131	7	20
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130	0	20
Trichloroethene	25.0	27.2		ug/L		109	70 - 130	3	20
Trichlorofluoromethane	25.0	28.4		ug/L		114	69 - 150	2	22
1,2,3-Trichloropropane	25.0	23.4		ug/L		94	70 - 130	11	20
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		105	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 130	2	20
Vinyl acetate	25.0	28.7		ug/L		115	67 - 148	7	22
Vinyl chloride	25.0	28.1		ug/L		112	65 - 137	1	20
Xylenes, Total	50.0	49.4		ug/L		99	70 - 130	13	20
Butadiene	25.0	30.8		ug/L		123	12 - 150	5	35
Hexane	25.0	29.0		ug/L		116	54 - 132	6	28
m-Xylene & p-Xylene	25.0	23.8		ug/L		95	70 - 130	16	20
o-Xylene	25.0	25.6		ug/L		102	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*86*		*70 - 130*

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

Lab Sample ID: LCSD 550-58715/5
Matrix: Water
Analysis Batch: 58715

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*

Lab Sample ID: 550-41327-E-4 MS
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	13.9		ug/L		55	29 - 139
Benzene	ND	E8	25.0	25.9		ug/L		103	68 - 131
Bromobenzene	ND	E8	25.0	26.1		ug/L		104	70 - 130
Chlorobromomethane	ND	E8	25.0	26.2		ug/L		105	64 - 132
Dichlorobromomethane	ND	E8	25.0	27.3		ug/L		109	63 - 138
Bromoform	ND	E8	25.0	24.5		ug/L		98	60 - 128
Bromomethane	ND	E8	25.0	29.2		ug/L		117	47 - 144
2-Butanone (MEK)	ND	E8	25.0	23.9		ug/L		96	31 - 143
n-Butylbenzene	ND	E8	25.0	22.3		ug/L		89	69 - 140
sec-Butylbenzene	ND	E8	25.0	25.0		ug/L		100	72 - 136
Carbon disulfide	ND	E8	25.0	29.2		ug/L		117	45 - 150
Carbon tetrachloride	ND	E8	25.0	27.4		ug/L		110	65 - 147
Chlorobenzene	ND	E8	25.0	27.1		ug/L		108	70 - 130
Chloroethane	ND	E8	25.0	25.7		ug/L		103	57 - 139
Chloroform	ND	E8	25.0	29.4		ug/L		117	63 - 131
Chloromethane	ND	E8	25.0	25.8		ug/L		103	47 - 134
2-Chlorotoluene	ND	E8	25.0	25.5		ug/L		102	71 - 131
4-Chlorotoluene	ND	E8	25.0	26.1		ug/L		105	70 - 130
Chlorodibromomethane	ND	E8	25.0	26.2		ug/L		105	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	25.2		ug/L		101	53 - 145
Ethylene Dibromide	ND	E8	25.0	27.7		ug/L		111	70 - 130
Dibromomethane	ND	E8	25.0	24.7		ug/L		99	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	25.8		ug/L		103	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	24.7		ug/L		99	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	24.1		ug/L		96	70 - 130
Dichlorodifluoromethane	0.97		25.0	26.6		ug/L		103	40 - 148
1,1-Dichloroethane	ND	E8	25.0	27.8		ug/L		111	62 - 130
1,2-Dichloroethane	ND	E8	25.0	28.1		ug/L		112	54 - 147
1,1-Dichloroethene	2.7		25.0	32.2		ug/L		118	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	28.3		ug/L		113	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	29.5		ug/L		118	62 - 131
1,2-Dichloropropane	ND	E8	25.0	26.8		ug/L		107	68 - 126
1,3-Dichloropropane	ND	E8	25.0	26.2		ug/L		105	68 - 129
2,2-Dichloropropane	ND	E8	25.0	26.7		ug/L		107	60 - 146
1,1-Dichloropropene	ND	E8	25.0	26.4		ug/L		106	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	26.8		ug/L		107	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	24.1		ug/L		96	58 - 136
Ethylbenzene	ND	E8	25.0	27.1		ug/L		108	74 - 134
Hexachlorobutadiene	ND	E8	25.0	23.2		ug/L		93	69 - 150
2-Hexanone	ND	E8 R6	25.0	19.6		ug/L		78	40 - 142

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

Lab Sample ID: 550-41327-E-4 MS
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND	E8	25.0	29.8		ug/L		119	53 - 150
Isopropylbenzene	ND	E8	25.0	26.3		ug/L		105	80 - 146
4-Isopropyltoluene	ND	E8	25.0	23.9		ug/L		96	70 - 133
Methylene Chloride	ND	E8	25.0	29.2		ug/L		117	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	24.2		ug/L		97	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	28.5		ug/L		114	67 - 138
Naphthalene	ND	E8	25.0	22.2		ug/L		89	67 - 146
N-Propylbenzene	ND	E8	25.0	25.9		ug/L		103	74 - 140
Styrene	ND	E8	25.0	24.7		ug/L		99	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.4		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.8		ug/L		111	63 - 137
Tetrachloroethene	1.3		25.0	27.8		ug/L		106	67 - 131
Toluene	ND	E8	25.0	25.8		ug/L		103	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	21.0		ug/L		84	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	21.4		ug/L		85	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	28.7		ug/L		115	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	24.4		ug/L		97	63 - 132
Trichloroethene	6.7		25.0	33.3		ug/L		106	66 - 132
Trichlorofluoromethane	ND	E8	25.0	28.7		ug/L		115	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	23.7		ug/L		95	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	25.1		ug/L		101	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	24.4		ug/L		98	66 - 137
Vinyl acetate	ND	E8	25.0	26.6		ug/L		106	47 - 150
Vinyl chloride	ND	E8	25.0	26.7		ug/L		107	55 - 146
Xylenes, Total	ND	E8	50.0	51.0		ug/L		102	68 - 131
Butadiene	ND	E8	25.0	28.3		ug/L		113	10 - 150
Hexane	ND	E8	25.0	27.6		ug/L		110	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	24.6		ug/L		98	58 - 138
o-Xylene	ND	E8	25.0	26.4		ug/L		106	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*92*		*70 - 130*
Toluene-d8 (Surr)	*86*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: 550-41327-E-4 MSD
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	14.4		ug/L		58	29 - 139	4	35
Benzene	ND	E8	25.0	26.8		ug/L		107	68 - 131	3	32
Bromobenzene	ND	E8	25.0	30.0		ug/L		120	70 - 130	14	28
Chlorobromomethane	ND	E8	25.0	26.5		ug/L		106	64 - 132	1	35
Dichlorobromomethane	ND	E8	25.0	27.0		ug/L		108	63 - 138	1	31
Bromoform	ND	E8	25.0	28.9		ug/L		116	60 - 128	16	31
Bromomethane	ND	E8	25.0	29.8		ug/L		119	47 - 144	2	35
2-Butanone (MEK)	ND	E8	25.0	28.9		ug/L		116	31 - 143	19	35

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

Lab Sample ID: 550-41327-E-4 MSD
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene	ND	E8	25.0	25.5		ug/L		102	69 - 140	13	32
sec-Butylbenzene	ND	E8	25.0	26.5		ug/L		106	72 - 136	6	33
Carbon disulfide	ND	E8	25.0	30.0		ug/L		120	45 - 150	3	35
Carbon tetrachloride	ND	E8	25.0	27.7		ug/L		111	65 - 147	1	35
Chlorobenzene	ND	E8	25.0	27.2		ug/L		109	70 - 130	0	30
Chloroethane	ND	E8	25.0	26.6		ug/L		106	57 - 139	3	35
Chloroform	ND	E8	25.0	29.2		ug/L		117	63 - 131	1	33
Chloromethane	ND	E8	25.0	26.9		ug/L		108	47 - 134	4	35
2-Chlorotoluene	ND	E8	25.0	29.0		ug/L		116	71 - 131	13	29
4-Chlorotoluene	ND	E8	25.0	28.3		ug/L		113	70 - 130	8	28
Chlorodibromomethane	ND	E8	25.0	26.2		ug/L		105	65 - 134	0	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	29.6		ug/L		119	53 - 145	16	35
Ethylene Dibromide	ND	E8	25.0	27.3		ug/L		109	70 - 130	1	33
Dibromomethane	ND	E8	25.0	25.6		ug/L		102	66 - 136	4	35
1,2-Dichlorobenzene	ND	E8	25.0	28.5		ug/L		114	70 - 130	10	27
1,3-Dichlorobenzene	ND	E8	25.0	25.8		ug/L		103	70 - 130	5	28
1,4-Dichlorobenzene	ND	E8	25.0	27.0		ug/L		108	70 - 130	11	26
Dichlorodifluoromethane	0.97		25.0	26.5		ug/L		102	40 - 148	0	35
1,1-Dichloroethane	ND	E8	25.0	29.5		ug/L		118	62 - 130	6	34
1,2-Dichloroethane	ND	E8	25.0	29.5		ug/L		118	54 - 147	5	35
1,1-Dichloroethene	2.7		25.0	30.8		ug/L		113	57 - 137	4	35
cis-1,2-Dichloroethene	ND	E8	25.0	29.4		ug/L		118	65 - 127	4	34
trans-1,2-Dichloroethene	ND	E8	25.0	29.4		ug/L		117	62 - 131	0	35
1,2-Dichloropropane	ND	E8	25.0	26.9		ug/L		108	68 - 126	0	32
1,3-Dichloropropane	ND	E8	25.0	28.0		ug/L		112	68 - 129	7	33
2,2-Dichloropropane	ND	E8	25.0	26.8		ug/L		107	60 - 146	0	35
1,1-Dichloropropene	ND	E8	25.0	28.4		ug/L		114	64 - 134	7	34
cis-1,3-Dichloropropene	ND	E8	25.0	27.2		ug/L		109	63 - 135	1	35
trans-1,3-Dichloropropene	ND	E8	25.0	25.3		ug/L		101	58 - 136	5	35
Ethylbenzene	ND	E8	25.0	26.1		ug/L		104	74 - 134	4	32
Hexachlorobutadiene	ND	E8	25.0	26.1		ug/L		104	69 - 150	12	32
2-Hexanone	ND	E8 R6	25.0	20.0		ug/L		80	40 - 142	2	35
Iodomethane	ND	E8	25.0	30.6		ug/L		123	53 - 150	3	35
Isopropylbenzene	ND	E8	25.0	30.0		ug/L		120	80 - 146	13	32
4-Isopropyltoluene	ND	E8	25.0	25.4		ug/L		102	70 - 133	6	32
Methylene Chloride	ND	E8	25.0	30.4		ug/L		121	55 - 133	4	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	26.2		ug/L		105	52 - 143	8	35
Methyl tert-butyl ether	ND	E8	25.0	29.6		ug/L		118	67 - 138	4	21
Naphthalene	ND	E8	25.0	28.9		ug/L		116	67 - 146	26	29
N-Propylbenzene	ND	E8	25.0	28.3		ug/L		113	74 - 140	9	32
Styrene	ND	E8	25.0	25.6		ug/L		102	43 - 144	4	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	26.9		ug/L		108	70 - 130	6	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	30.6		ug/L		123	63 - 137	10	32
Tetrachloroethene	1.3		25.0	26.7		ug/L		101	67 - 131	4	31
Toluene	ND	E8	25.0	26.4		ug/L		106	65 - 138	2	33
1,2,3-Trichlorobenzene	ND	E8	25.0	25.1		ug/L		101	74 - 139	18	26
1,2,4-Trichlorobenzene	ND	E8	25.0	26.2		ug/L		105	74 - 138	20	26
1,1,1-Trichloroethane	ND	E8	25.0	29.8		ug/L		119	64 - 138	4	35

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

Lab Sample ID: 550-41327-E-4 MSD
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND	E8	25.0	28.2		ug/L		113	63 - 132	15	35
Trichloroethene	6.7		25.0	33.8		ug/L		108	66 - 132	1	29
Trichlorofluoromethane	ND	E8	25.0	28.6		ug/L		115	62 - 150	0	35
1,2,3-Trichloropropane	ND	E8	25.0	27.9		ug/L		111	68 - 130	16	32
1,2,4-Trimethylbenzene	ND	E8	25.0	27.8		ug/L		111	63 - 135	10	31
1,3,5-Trimethylbenzene	ND	E8	25.0	28.3		ug/L		113	66 - 137	15	30
Vinyl acetate	ND	E8	25.0	26.8		ug/L		107	47 - 150	1	35
Vinyl chloride	ND	E8	25.0	28.2		ug/L		113	55 - 146	6	35
Xylenes, Total	ND	E8	50.0	51.6		ug/L		103	68 - 131	1	31
Butadiene	ND	E8	25.0	28.6		ug/L		115	10 - 150	1	35
Hexane	ND	E8	25.0	27.9		ug/L		112	46 - 139	1	35
m-Xylene & p-Xylene	ND	E8	25.0	25.3		ug/L		101	58 - 138	3	29
o-Xylene	ND	E8	25.0	26.3		ug/L		105	66 - 137	0	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: MB 550-58750/5
Matrix: Water
Analysis Batch: 58750

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/17/15 19:24	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 19:24	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 19:24	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 19:24	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 19:24	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 19:24	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 19:24	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/17/15 19:24	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:24	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 19:24	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 19:24	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 19:24	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 19:24	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 19:24	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 19:24	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 19:24	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 19:24	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 19:24	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 19:24	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 19:24	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 19:24	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 19:24	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 19:24	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 19:24	1

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

Lab Sample ID: MB 550-58750/5
Matrix: Water
Analysis Batch: 58750

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 19:24	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 19:24	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:24	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 19:24	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 19:24	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 19:24	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 19:24	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 19:24	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 19:24	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 19:24	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 19:24	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 19:24	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 19:24	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 19:24	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 19:24	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 19:24	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 19:24	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 19:24	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 19:24	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 19:24	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 19:24	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 19:24	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 19:24	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 19:24	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:24	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 19:24	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 19:24	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 19:24	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 19:24	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 19:24	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 19:24	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 19:24	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:24	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 19:24	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 19:24	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 19:24	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 19:24	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 19:24	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 19:24	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 19:24	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 19:24	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 19:24	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 19:24	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 19:24	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 19:24*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 19:24*	*1*

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

Lab Sample ID: MB 550-58750/5
Matrix: Water
Analysis Batch: 58750

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

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/17/15 19:24	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/17/15 19:24	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/17/15 19:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		70 - 130		03/17/15 19:24	1
Toluene-d8 (Surr)	85		70 - 130		03/17/15 19:24	1
4-Bromofluorobenzene (Surr)	82		70 - 130		03/17/15 19:24	1

Lab Sample ID: LCS 550-58750/3
Matrix: Water
Analysis Batch: 58750

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	44.5	L5 V1	ug/L		178	38 - 150
Benzene	25.0	26.2		ug/L		105	70 - 130
Bromobenzene	25.0	26.7		ug/L		107	70 - 130
Chlorobromomethane	25.0	25.3		ug/L		101	70 - 130
Dichlorobromomethane	25.0	27.0		ug/L		108	70 - 130
Bromoform	25.0	25.3		ug/L		101	69 - 129
Bromomethane	25.0	26.3		ug/L		105	57 - 138
2-Butanone (MEK)	25.0	42.2	L5 V1	ug/L		169	53 - 150
n-Butylbenzene	25.0	27.3		ug/L		109	70 - 130
sec-Butylbenzene	25.0	26.1		ug/L		104	70 - 130
Carbon disulfide	25.0	26.6		ug/L		106	64 - 145
Carbon tetrachloride	25.0	26.7		ug/L		107	70 - 143
Chlorobenzene	25.0	27.7		ug/L		111	70 - 130
Chloroethane	25.0	24.6		ug/L		98	66 - 131
Chloroform	25.0	26.7		ug/L		107	70 - 130
Chloromethane	25.0	24.6		ug/L		99	56 - 129
2-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130
4-Chlorotoluene	25.0	26.9		ug/L		107	70 - 130
Chlorodibromomethane	25.0	26.9		ug/L		108	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.9		ug/L		92	63 - 146
Ethylene Dibromide	25.0	26.8		ug/L		107	70 - 130
Dibromomethane	25.0	27.1		ug/L		108	70 - 130
1,2-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,3-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
1,4-Dichlorobenzene	25.0	27.1		ug/L		108	70 - 130
Dichlorodifluoromethane	25.0	25.3		ug/L		101	46 - 144
1,1-Dichloroethane	25.0	26.3		ug/L		105	70 - 130
1,2-Dichloroethane	25.0	27.4		ug/L		110	66 - 139
1,1-Dichloroethene	25.0	27.3		ug/L		109	63 - 131
cis-1,2-Dichloroethene	25.0	24.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	25.0	26.0		ug/L		104	69 - 127
1,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	28.2		ug/L		113	70 - 130

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

Lab Sample ID: LCS 550-58750/3
Matrix: Water
Analysis Batch: 58750

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	33.5		ug/L		134	69 - 139
1,1-Dichloropropene	25.0	27.6		ug/L		110	70 - 130
cis-1,3-Dichloropropene	25.0	29.1		ug/L		116	70 - 130
trans-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 130
Ethylbenzene	25.0	27.9		ug/L		112	70 - 130
Hexachlorobutadiene	25.0	25.0		ug/L		100	76 - 145
2-Hexanone	25.0	32.6		ug/L		130	55 - 150
Iodomethane	25.0	26.3		ug/L		105	70 - 130
Isopropylbenzene	25.0	26.2		ug/L		105	88 - 141
4-Isopropyltoluene	25.0	26.4		ug/L		106	70 - 130
Methylene Chloride	25.0	23.1		ug/L		92	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	25.3		ug/L		101	64 - 142
Methyl tert-butyl ether	25.0	27.4		ug/L		110	70 - 130
Naphthalene	25.0	23.2		ug/L		93	78 - 143
N-Propylbenzene	25.0	27.7		ug/L		111	70 - 130
Styrene	25.0	27.8		ug/L		111	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.7		ug/L		111	70 - 130
1,1,2,2-Tetrachloroethane	25.0	26.1		ug/L		104	70 - 130
Tetrachloroethene	25.0	27.6		ug/L		110	70 - 130
Toluene	25.0	26.5		ug/L		106	70 - 130
1,2,3-Trichlorobenzene	25.0	22.9		ug/L		92	79 - 139
1,2,4-Trichlorobenzene	25.0	22.5		ug/L		90	80 - 137
1,1,1-Trichloroethane	25.0	26.6		ug/L		106	71 - 131
1,1,2-Trichloroethane	25.0	27.2		ug/L		109	70 - 130
Trichloroethene	25.0	26.7		ug/L		107	70 - 130
Trichlorofluoromethane	25.0	26.9		ug/L		107	69 - 150
1,2,3-Trichloropropane	25.0	25.8		ug/L		103	70 - 130
1,2,4-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	25.0	27.2		ug/L		109	70 - 130
Vinyl acetate	25.0	27.8		ug/L		111	67 - 148
Vinyl chloride	25.0	26.5		ug/L		106	65 - 137
Xylenes, Total	50.0	54.7		ug/L		109	70 - 130
Butadiene	25.0	27.6		ug/L		111	12 - 150
Hexane	25.0	29.0		ug/L		116	54 - 132
m-Xylene & p-Xylene	25.0	26.6		ug/L		107	70 - 130
o-Xylene	25.0	28.1		ug/L		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 550-58750/4
Matrix: Water
Analysis Batch: 58750

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	39.4	L5 V1	ug/L		158	38 - 150	12	35

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

Lab Sample ID: LCSD 550-58750/4
Matrix: Water
Analysis Batch: 58750

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	25.6		ug/L		102	70 - 130	3	20
Bromobenzene	25.0	27.5		ug/L		110	70 - 130	3	20
Chlorobromomethane	25.0	24.6		ug/L		98	70 - 130	3	20
Dichlorobromomethane	25.0	25.9		ug/L		104	70 - 130	4	20
Bromoform	25.0	25.0		ug/L		100	69 - 129	1	20
Bromomethane	25.0	26.5		ug/L		106	57 - 138	1	20
2-Butanone (MEK)	25.0	34.4	V1	ug/L		138	53 - 150	20	35
n-Butylbenzene	25.0	27.3		ug/L		109	70 - 130	0	20
sec-Butylbenzene	25.0	27.8		ug/L		111	70 - 130	6	20
Carbon disulfide	25.0	27.0		ug/L		108	64 - 145	1	33
Carbon tetrachloride	25.0	25.8		ug/L		103	70 - 143	4	20
Chlorobenzene	25.0	23.8		ug/L		95	70 - 130	15	20
Chloroethane	25.0	25.0		ug/L		100	66 - 131	2	20
Chloroform	25.0	26.7		ug/L		107	70 - 130	0	20
Chloromethane	25.0	23.9		ug/L		96	56 - 129	3	20
2-Chlorotoluene	25.0	27.6		ug/L		111	70 - 130	4	20
4-Chlorotoluene	25.0	27.3		ug/L		109	70 - 130	2	20
Chlorodibromomethane	25.0	24.7		ug/L		99	70 - 130	9	20
1,2-Dibromo-3-Chloropropane	25.0	22.7		ug/L		91	63 - 146	1	22
Ethylene Dibromide	25.0	23.7		ug/L		95	70 - 130	12	20
Dibromomethane	25.0	25.5		ug/L		102	70 - 130	6	20
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130	1	20
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130	2	20
1,4-Dichlorobenzene	25.0	27.6		ug/L		110	70 - 130	2	20
Dichlorodifluoromethane	25.0	26.2		ug/L		105	46 - 144	4	23
1,1-Dichloroethane	25.0	25.9		ug/L		104	70 - 130	1	20
1,2-Dichloroethane	25.0	26.2		ug/L		105	66 - 139	4	20
1,1-Dichloroethene	25.0	28.1		ug/L		112	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	27.1		ug/L		108	69 - 127	4	20
1,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 130	0	20
1,3-Dichloropropane	25.0	24.2		ug/L		97	70 - 130	15	20
2,2-Dichloropropane	25.0	36.2	L5	ug/L		145	69 - 139	8	20
1,1-Dichloropropene	25.0	25.7		ug/L		103	70 - 130	7	20
cis-1,3-Dichloropropene	25.0	26.3		ug/L		105	70 - 130	10	20
trans-1,3-Dichloropropene	25.0	25.7		ug/L		103	70 - 130	3	20
Ethylbenzene	25.0	25.2		ug/L		101	70 - 130	10	20
Hexachlorobutadiene	25.0	25.3		ug/L		101	76 - 145	1	20
2-Hexanone	25.0	27.5		ug/L		110	55 - 150	17	35
Iodomethane	25.0	27.0		ug/L		108	70 - 130	3	20
Isopropylbenzene	25.0	26.8		ug/L		107	88 - 141	3	20
4-Isopropyltoluene	25.0	26.5		ug/L		106	70 - 130	0	20
Methylene Chloride	25.0	23.3		ug/L		93	63 - 128	1	21
4-Methyl-2-pentanone (MIBK)	25.0	23.3		ug/L		93	64 - 142	8	25
Methyl tert-butyl ether	25.0	27.1		ug/L		108	70 - 130	1	20
Naphthalene	25.0	23.0		ug/L		92	78 - 143	1	20
N-Propylbenzene	25.0	27.8		ug/L		111	70 - 130	0	20
Styrene	25.0	24.0		ug/L		96	70 - 130	15	20

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

Lab Sample ID: LCSD 550-58750/4
Matrix: Water
Analysis Batch: 58750

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	24.5		ug/L		98	70 - 130	12	20
1,1,2,2-Tetrachloroethane	25.0	26.8		ug/L		107	70 - 130	3	20
Tetrachloroethene	25.0	25.4		ug/L		101	70 - 130	8	20
Toluene	25.0	25.5		ug/L		102	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	23.0		ug/L		92	79 - 139	0	20
1,2,4-Trichlorobenzene	25.0	21.8		ug/L		87	80 - 137	3	20
1,1,1-Trichloroethane	25.0	27.1		ug/L		108	71 - 131	2	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	70 - 130	5	20
Trichloroethene	25.0	26.5		ug/L		106	70 - 130	1	20
Trichlorofluoromethane	25.0	26.5		ug/L		106	69 - 150	1	22
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	27.6		ug/L		111	70 - 130	2	20
Vinyl acetate	25.0	25.7		ug/L		103	67 - 148	8	22
Vinyl chloride	25.0	26.5		ug/L		106	65 - 137	0	20
Xylenes, Total	50.0	50.1		ug/L		100	70 - 130	9	20
Butadiene	25.0	27.0		ug/L		108	12 - 150	2	35
Hexane	25.0	28.0		ug/L		112	54 - 132	3	28
m-Xylene & p-Xylene	25.0	25.2		ug/L		101	70 - 130	6	20
o-Xylene	25.0	24.9		ug/L		99	70 - 130	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 550-41397-6 MS
Matrix: Water
Analysis Batch: 58750

Client Sample ID: IRA-13-210-031115
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	18.2	V1	ug/L		73	29 - 139
Benzene	ND	E8	25.0	26.1		ug/L		104	68 - 131
Bromobenzene	ND	E8	25.0	28.0		ug/L		112	70 - 130
Chlorobromomethane	ND	E8	25.0	24.8		ug/L		99	64 - 132
Dichlorobromomethane	ND	E8	25.0	26.7		ug/L		107	63 - 138
Bromoform	ND	E8	25.0	26.7		ug/L		107	60 - 128
Bromomethane	ND	E8	25.0	25.8		ug/L		103	47 - 144
2-Butanone (MEK)	ND	E8	25.0	23.0	V1	ug/L		92	31 - 143
n-Butylbenzene	ND	E8	25.0	27.2		ug/L		109	69 - 140
sec-Butylbenzene	ND	E8	25.0	28.1		ug/L		113	72 - 136
Carbon disulfide	ND	E8	25.0	27.5		ug/L		110	45 - 150
Carbon tetrachloride	ND	E8	25.0	26.5		ug/L		106	65 - 147
Chlorobenzene	ND	E8	25.0	26.5		ug/L		106	70 - 130
Chloroethane	ND	E8	25.0	25.4		ug/L		101	57 - 139
Chloroform	ND	E8	25.0	27.3		ug/L		109	63 - 131
Chloromethane	ND	E8	25.0	25.3		ug/L		101	47 - 134
2-Chlorotoluene	ND	E8	25.0	27.8		ug/L		111	71 - 131

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

Lab Sample ID: 550-41397-6 MS
Matrix: Water
Analysis Batch: 58750

Client Sample ID: IRA-13-210-031115
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	ND	E8	25.0	28.0		ug/L		112	70 - 130
Chlorodibromomethane	ND	E8	25.0	27.4		ug/L		110	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	23.9		ug/L		96	53 - 145
Ethylene Dibromide	ND	E8	25.0	25.9		ug/L		103	70 - 130
Dibromomethane	ND	E8	25.0	27.3		ug/L		109	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	27.2		ug/L		109	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	27.2		ug/L		109	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	27.6		ug/L		110	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	26.1		ug/L		104	40 - 148
1,1-Dichloroethane	ND	E8	25.0	27.2		ug/L		109	62 - 130
1,2-Dichloroethane	ND	E8	25.0	27.4		ug/L		109	54 - 147
1,1-Dichloroethene	2.1		25.0	29.5		ug/L		110	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	26.8		ug/L		107	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.3		ug/L		101	62 - 131
1,2-Dichloropropane	ND	E8	25.0	25.6		ug/L		102	68 - 126
1,3-Dichloropropane	ND	E8	25.0	26.8		ug/L		107	68 - 129
2,2-Dichloropropane	ND	E8	25.0	30.8		ug/L		123	60 - 146
1,1-Dichloropropene	ND	E8	25.0	26.8		ug/L		107	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	27.7		ug/L		111	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	25.3		ug/L		101	58 - 136
Ethylbenzene	ND	E8	25.0	27.6		ug/L		110	74 - 134
Hexachlorobutadiene	ND	E8	25.0	25.8		ug/L		103	69 - 150
2-Hexanone	ND	E8	25.0	19.1		ug/L		77	40 - 142
Iodomethane	ND	E8	25.0	26.7		ug/L		107	53 - 150
Isopropylbenzene	ND	E8	25.0	28.1		ug/L		113	80 - 146
4-Isopropyltoluene	ND	E8	25.0	27.8		ug/L		111	70 - 133
Methylene Chloride	ND	E8	25.0	25.1		ug/L		100	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	22.8		ug/L		91	52 - 143
Methyl tert-butyl ether	0.24	E4	25.0	27.2		ug/L		108	67 - 138
Naphthalene	ND	E8	25.0	22.6		ug/L		90	67 - 146
N-Propylbenzene	ND	E8	25.0	29.2		ug/L		117	74 - 140
Styrene	ND	E8	25.0	26.8		ug/L		107	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	27.6		ug/L		110	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	28.6		ug/L		114	63 - 137
Tetrachloroethene	0.56		25.0	27.7		ug/L		109	67 - 131
Toluene	ND	E8	25.0	25.9		ug/L		104	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	21.9		ug/L		88	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	22.6		ug/L		90	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	27.0		ug/L		108	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	27.1		ug/L		108	63 - 132
Trichloroethene	1.7		25.0	27.4		ug/L		103	66 - 132
Trichlorofluoromethane	ND	E8	25.0	27.5		ug/L		110	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	25.7		ug/L		103	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	26.7		ug/L		107	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	28.3		ug/L		113	66 - 137
Vinyl acetate	ND	E8	25.0	27.7		ug/L		111	47 - 150
Vinyl chloride	ND	E8	25.0	27.1		ug/L		108	55 - 146
Xylenes, Total	ND	E8	50.0	54.2		ug/L		108	68 - 131

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

Lab Sample ID: 550-41397-6 MS — **Client Sample ID: IRA-13-210-031115**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58750

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Butadiene	ND	E8	25.0	28.5		ug/L		114	10 - 150
Hexane	ND	E8	25.0	30.4		ug/L		122	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	26.7		ug/L		107	58 - 138
o-Xylene	ND	E8	25.0	27.5		ug/L		110	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 550-41397-6 MSD — **Client Sample ID: IRA-13-210-031115**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58750

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	17.1	V1	ug/L		68	29 - 139	6	35
Benzene	ND	E8	25.0	26.2		ug/L		105	68 - 131	1	32
Bromobenzene	ND	E8	25.0	28.8		ug/L		115	70 - 130	3	28
Chlorobromomethane	ND	E8	25.0	26.5		ug/L		106	64 - 132	7	35
Dichlorobromomethane	ND	E8	25.0	26.4		ug/L		106	63 - 138	1	31
Bromoform	ND	E8	25.0	25.9		ug/L		104	60 - 128	3	31
Bromomethane	ND	E8	25.0	25.6		ug/L		102	47 - 144	1	35
2-Butanone (MEK)	ND	E8	25.0	22.4	V1	ug/L		90	31 - 143	3	35
n-Butylbenzene	ND	E8	25.0	27.6		ug/L		110	69 - 140	1	32
sec-Butylbenzene	ND	E8	25.0	28.3		ug/L		113	72 - 136	0	33
Carbon disulfide	ND	E8	25.0	26.5		ug/L		106	45 - 150	4	35
Carbon tetrachloride	ND	E8	25.0	26.4		ug/L		106	65 - 147	1	35
Chlorobenzene	ND	E8	25.0	26.6		ug/L		106	70 - 130	0	30
Chloroethane	ND	E8	25.0	25.8		ug/L		103	57 - 139	2	35
Chloroform	ND	E8	25.0	27.9		ug/L		112	63 - 131	2	33
Chloromethane	ND	E8	25.0	23.6		ug/L		94	47 - 134	7	35
2-Chlorotoluene	ND	E8	25.0	28.4		ug/L		114	71 - 131	2	29
4-Chlorotoluene	ND	E8	25.0	28.7		ug/L		115	70 - 130	3	28
Chlorodibromomethane	ND	E8	25.0	27.1		ug/L		108	65 - 134	1	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	25.3		ug/L		101	53 - 145	6	35
Ethylene Dibromide	ND	E8	25.0	25.7		ug/L		103	70 - 130	0	33
Dibromomethane	ND	E8	25.0	27.3		ug/L		109	66 - 136	0	35
1,2-Dichlorobenzene	ND	E8	25.0	26.0		ug/L		104	70 - 130	4	27
1,3-Dichlorobenzene	ND	E8	25.0	27.1		ug/L		108	70 - 130	0	28
1,4-Dichlorobenzene	ND	E8	25.0	27.2		ug/L		109	70 - 130	1	26
Dichlorodifluoromethane	ND	E8	25.0	26.9		ug/L		107	40 - 148	3	35
1,1-Dichloroethane	ND	E8	25.0	26.4		ug/L		106	62 - 130	3	34
1,2-Dichloroethane	ND	E8	25.0	26.4		ug/L		106	54 - 147	4	35
1,1-Dichloroethene	2.1		25.0	28.9		ug/L		107	57 - 137	2	35
cis-1,2-Dichloroethene	ND	E8	25.0	26.2		ug/L		105	65 - 127	2	34
trans-1,2-Dichloroethene	ND	E8	25.0	27.3		ug/L		109	62 - 131	8	35
1,2-Dichloropropane	ND	E8	25.0	26.4		ug/L		105	68 - 126	3	32
1,3-Dichloropropane	ND	E8	25.0	26.3		ug/L		105	68 - 129	2	33

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

Lab Sample ID: 550-41397-6 MSD
Matrix: Water
Analysis Batch: 58750

Client Sample ID: IRA-13-210-031115
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,2-Dichloropropane	ND	E8	25.0	32.3		ug/L		129	60 - 146	5	35
1,1-Dichloropropene	ND	E8	25.0	27.4		ug/L		110	64 - 134	2	34
cis-1,3-Dichloropropene	ND	E8	25.0	28.6		ug/L		114	63 - 135	3	35
trans-1,3-Dichloropropene	ND	E8	25.0	26.0		ug/L		104	58 - 136	3	35
Ethylbenzene	ND	E8	25.0	27.1		ug/L		108	74 - 134	2	32
Hexachlorobutadiene	ND	E8	25.0	26.7		ug/L		107	69 - 150	3	32
2-Hexanone	ND	E8	25.0	20.8		ug/L		83	40 - 142	8	35
Iodomethane	ND	E8	25.0	26.8		ug/L		107	53 - 150	1	35
Isopropylbenzene	ND	E8	25.0	28.6		ug/L		114	80 - 146	2	32
4-Isopropyltoluene	ND	E8	25.0	27.0		ug/L		108	70 - 133	3	32
Methylene Chloride	ND	E8	25.0	25.8		ug/L		103	55 - 133	3	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	24.1		ug/L		96	52 - 143	5	35
Methyl tert-butyl ether	0.24	E4	25.0	28.1		ug/L		112	67 - 138	3	21
Naphthalene	ND	E8	25.0	24.3		ug/L		97	67 - 146	7	29
N-Propylbenzene	ND	E8	25.0	29.0		ug/L		116	74 - 140	1	32
Styrene	ND	E8	25.0	26.0		ug/L		104	43 - 144	3	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.5		ug/L		102	70 - 130	8	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	28.6		ug/L		114	63 - 137	0	32
Tetrachloroethene	0.56		25.0	27.8		ug/L		109	67 - 131	0	31
Toluene	ND	E8	25.0	26.3		ug/L		105	65 - 138	1	33
1,2,3-Trichlorobenzene	ND	E8	25.0	22.9		ug/L		91	74 - 139	4	26
1,2,4-Trichlorobenzene	ND	E8	25.0	21.9		ug/L		88	74 - 138	3	26
1,1,1-Trichloroethane	ND	E8	25.0	27.5		ug/L		110	64 - 138	2	35
1,1,2-Trichloroethane	ND	E8	25.0	27.0		ug/L		108	63 - 132	0	35
Trichloroethene	1.7		25.0	28.6		ug/L		108	66 - 132	4	29
Trichlorofluoromethane	ND	E8	25.0	27.6		ug/L		110	62 - 150	1	35
1,2,3-Trichloropropane	ND	E8	25.0	28.2		ug/L		113	68 - 130	9	32
1,2,4-Trimethylbenzene	ND	E8	25.0	27.6		ug/L		110	63 - 135	3	31
1,3,5-Trimethylbenzene	ND	E8	25.0	28.8		ug/L		115	66 - 137	2	30
Vinyl acetate	ND	E8	25.0	28.0		ug/L		112	47 - 150	1	35
Vinyl chloride	ND	E8	25.0	26.5		ug/L		106	55 - 146	2	35
Xylenes, Total	ND	E8	50.0	53.8		ug/L		108	68 - 131	1	31
Butadiene	ND	E8	25.0	26.9		ug/L		107	10 - 150	6	35
Hexane	ND	E8	25.0	29.0		ug/L		116	46 - 139	5	35
m-Xylene & p-Xylene	ND	E8	25.0	26.5		ug/L		106	58 - 138	1	29
o-Xylene	ND	E8	25.0	27.3		ug/L		109	66 - 137	1	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58402/66 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/12/15 10:51	1
Chloride	ND	E8	2.0	0.29	mg/L			03/12/15 10:51	1
Bromide	ND	E8	0.50	0.051	mg/L			03/12/15 10:51	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/12/15 10:51	1

Lab Sample ID: LCS 550-58402/67 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.03		mg/L		101	90 - 110
Chloride	20.0	19.7		mg/L		98	90 - 110
Bromide	4.00	3.96		mg/L		99	90 - 110
Sulfate	20.0	20.4		mg/L		102	90 - 110

Lab Sample ID: LCSD 550-58402/68 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.02		mg/L		100	90 - 110	0	20
Chloride	20.0	19.8		mg/L		99	90 - 110	1	20
Bromide	4.00	3.88		mg/L		97	90 - 110	2	20
Sulfate	20.0	20.5		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-41260-D-1 MS ^10 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	6.9		40.0	50.0		mg/L		108	80 - 120
Chloride	370	M1	200	612	M1	mg/L		123	80 - 120
Bromide	ND	E8	40.0	41.2		mg/L		103	80 - 120
Sulfate	330	M1	200	595	M1	mg/L		132	80 - 120

Lab Sample ID: 550-41260-D-1 MSD ^10 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58402

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	6.9		40.0	49.9		mg/L		107	80 - 120	0	20
Chloride	370	M1	200	608	M1	mg/L		121	80 - 120	1	20
Bromide	ND	E8	40.0	41.0		mg/L		103	80 - 120	0	20
Sulfate	330	M1	200	592	M1	mg/L		131	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 550-59023/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	D2 E8	0.10	0.051	mg/L			03/19/15 20:05	1
Chloride	ND	D2 E8	2.0	0.29	mg/L			03/19/15 20:05	1
Bromide	ND	D2 E8	0.50	0.051	mg/L			03/19/15 20:05	1
Sulfate	ND	D2 E8	2.0	0.21	mg/L			03/19/15 20:05	1

Lab Sample ID: LCS 550-59204/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.06		mg/L		101	90 - 110
Chloride	20.0	19.8		mg/L		99	90 - 110
Bromide	4.00	3.93		mg/L		98	90 - 110
Sulfate	20.0	20.7		mg/L		104	90 - 110

Lab Sample ID: LCSD 550-59204/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.05		mg/L		101	90 - 110	0	20
Chloride	20.0	19.8		mg/L		99	90 - 110	0	20
Bromide	4.00	3.95		mg/L		99	90 - 110	0	20
Sulfate	20.0	20.7		mg/L		103	90 - 110	0	20

Lab Sample ID: 550-41207-A-3 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND	E8	4.00	4.04		mg/L		101	80 - 120
Chloride	8.0		20.0	27.8		mg/L		99	80 - 120
Bromide	ND	E8	4.00	3.98		mg/L		99	80 - 120
Sulfate	30		20.0	50.4		mg/L		100	80 - 120

Lab Sample ID: 550-41207-A-3 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59204

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND	E8	4.00	4.10		mg/L		103	80 - 120	2	20
Chloride	8.0		20.0	28.1		mg/L		100	80 - 120	1	20
Bromide	ND	E8	4.00	4.05		mg/L		101	80 - 120	2	20
Sulfate	30		20.0	50.7		mg/L		102	80 - 120	1	20

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58387/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58849 — **Prep Batch: 58387**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/12/15 11:47	03/18/15 12:14	1
Calcium	ND	E8	2.0	0.014	mg/L		03/12/15 11:47	03/18/15 12:14	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/12/15 11:47	03/18/15 12:14	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/12/15 11:47	03/18/15 12:14	1
Potassium	ND	E8	0.50	0.067	mg/L		03/12/15 11:47	03/18/15 12:14	1
Sodium	ND	E8	0.50	0.15	mg/L		03/12/15 11:47	03/18/15 12:14	1

Lab Sample ID: LCS 550-58387/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58849 — **Prep Batch: 58387**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.02		mg/L		102	85 - 115
Calcium	21.0	21.0		mg/L		100	85 - 115
Chromium	1.00	1.03		mg/L		103	85 - 115
Magnesium	21.0	20.7		mg/L		99	85 - 115
Potassium	20.0	19.4		mg/L		97	85 - 115
Sodium	20.0	19.2		mg/L		96	85 - 115

Lab Sample ID: LCSD 550-58387/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58849 — **Prep Batch: 58387**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.01		mg/L		101	85 - 115	1	20
Calcium	21.0	20.9		mg/L		100	85 - 115	0	20
Chromium	1.00	1.01		mg/L		101	85 - 115	2	20
Magnesium	21.0	20.7		mg/L		98	85 - 115	0	20
Potassium	20.0	19.3		mg/L		96	85 - 115	0	20
Sodium	20.0	19.3		mg/L		96	85 - 115	0	20

Lab Sample ID: 550-41408-Q-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58849 — **Prep Batch: 58387**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.12		1.00	1.14		mg/L		102	70 - 130
Calcium	72		21.0	91.3		mg/L		91	70 - 130
Chromium	0.043		1.00	0.997		mg/L		95	70 - 130
Magnesium	34		21.0	54.0		mg/L		95	70 - 130
Potassium	5.4		20.0	25.2		mg/L		99	70 - 130
Sodium	190	M3	20.0	203	M3	mg/L		72	70 - 130

Lab Sample ID: 550-41408-Q-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58849 — **Prep Batch: 58387**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.12		1.00	1.16		mg/L		104	70 - 130	2	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-41408-Q-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58849 — **Prep Batch: 58387**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	72		21.0	92.0		mg/L		94	70 - 130	1	20
Chromium	0.043		1.00	1.03		mg/L		99	70 - 130	3	20
Magnesium	34		21.0	54.4		mg/L		97	70 - 130	1	20
Potassium	5.4		20.0	25.2		mg/L		99	70 - 130	0	20
Sodium	190	M3	20.0	201	M3	mg/L		66	70 - 130	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-58948/35 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58948

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 20:58	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 20:58	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 20:58	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/18/15 20:58	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/18/15 20:58	1

Lab Sample ID: LCS 550-58948/34 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58948

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	240		mg/L		96	90 - 110

Lab Sample ID: LCSD 550-58948/48 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58948

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	246		mg/L		98	90 - 110	2	20

Lab Sample ID: 550-41313-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58948

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	220		220		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	200		201		mg/L		0.6	20
Carbonate Alkalinity as CaCO3	16		19.5	R12	mg/L		22	20
Alkalinity, Phenolphthalein	7.8		9.73	R12	mg/L		22	20
Hydroxide Alkalinity as CaCO3	ND	E8	ND	E8	mg/L		NC	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

GC/MS VOA

Analysis Batch: 58715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41327-E-4 MS	Matrix Spike	Total/NA	Water	8260B	
550-41327-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
550-41397-1	IRA-25-031115	Total/NA	Water	8260B	
550-41397-2	IRA-8-031115	Total/NA	Water	8260B	
550-41397-3	IRA-6-031115	Total/NA	Water	8260B	
550-41397-4	IRA-12-210-031115	Total/NA	Water	8260B	
550-41397-5	IRA-12-210--031115 DUP	Total/NA	Water	8260B	
LCS 550-58715/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58715/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58715/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 58750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41397-6	IRA-13-210-031115	Total/NA	Water	8260B	
550-41397-6 MS	IRA-13-210-031115	Total/NA	Water	8260B	
550-41397-6 MSD	IRA-13-210-031115	Total/NA	Water	8260B	
550-41397-7	IRA-13-210-031115 DUP	Total/NA	Water	8260B	
550-41397-8	TB	Total/NA	Water	8260B	
LCS 550-58750/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58750/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58750/5	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41260-D-1 MS ^10	Matrix Spike	Total/NA	Water	300.0	
550-41260-D-1 MSD ^10	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-41397-1	IRA-25-031115	Total/NA	Water	300.0	
550-41397-2	IRA-8-031115	Total/NA	Water	300.0	
550-41397-3	IRA-6-031115	Total/NA	Water	300.0	
550-41397-4	IRA-12-210-031115	Total/NA	Water	300.0	
550-41397-5	IRA-12-210--031115 DUP	Total/NA	Water	300.0	
550-41397-6	IRA-13-210-031115	Total/NA	Water	300.0	
550-41397-7	IRA-13-210-031115 DUP	Total/NA	Water	300.0	
LCS 550-58402/67	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58402/68	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58402/66	Method Blank	Total/NA	Water	300.0	

Filtration Batch: 59023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 550-59023/1-A	Method Blank	Total/NA	Water	Filtration	

Analysis Batch: 59204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41207-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
550-41207-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-41397-2	IRA-8-031115	Total/NA	Water	300.0	
550-41397-6	IRA-13-210-031115	Total/NA	Water	300.0	
550-41397-7	IRA-13-210-031115 DUP	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 59204 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 550-59204/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-59204/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-59023/1-A	Method Blank	Total/NA	Water	300.0	59023

Metals

Prep Batch: 58387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41397-1	IRA-25-031115	Total/NA	Water	200.7	
550-41397-2	IRA-8-031115	Total/NA	Water	200.7	
550-41397-3	IRA-6-031115	Total/NA	Water	200.7	
550-41397-4	IRA-12-210-031115	Total/NA	Water	200.7	
550-41397-5	IRA-12-210--031115 DUP	Total/NA	Water	200.7	
550-41397-6	IRA-13-210-031115	Total/NA	Water	200.7	
550-41397-7	IRA-13-210-031115 DUP	Total/NA	Water	200.7	
550-41408-Q-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-41408-Q-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
LCS 550-58387/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58387/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58387/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41397-1	IRA-25-031115	Total/NA	Water	200.7 Rev 4.4	58387
550-41397-2	IRA-8-031115	Total/NA	Water	200.7 Rev 4.4	58387
550-41397-3	IRA-6-031115	Total/NA	Water	200.7 Rev 4.4	58387
550-41397-4	IRA-12-210-031115	Total/NA	Water	200.7 Rev 4.4	58387
550-41397-5	IRA-12-210--031115 DUP	Total/NA	Water	200.7 Rev 4.4	58387
550-41397-6	IRA-13-210-031115	Total/NA	Water	200.7 Rev 4.4	58387
550-41397-7	IRA-13-210-031115 DUP	Total/NA	Water	200.7 Rev 4.4	58387
550-41408-Q-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	58387
550-41408-Q-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	58387
LCS 550-58387/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58387
LCSD 550-58387/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58387
MB 550-58387/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58387

General Chemistry

Analysis Batch: 58948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41313-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	
550-41397-2	IRA-8-031115	Total/NA	Water	SM 2320B	
550-41397-6	IRA-13-210-031115	Total/NA	Water	SM 2320B	
550-41397-7	IRA-13-210-031115 DUP	Total/NA	Water	SM 2320B	
LCS 550-58948/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-58948/48	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-58948/35	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-25-031115 — Lab Sample ID: 550-41397-1

Date Collected: 03/11/15 08:43 — **Matrix: Water**
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 23:56	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 17:03	YAF	TAL PHX
Total/NA	Prep	200.7			58387	03/12/15 11:47	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58849	03/18/15 12:34	AJC	TAL PHX

Client Sample ID: IRA-8-031115 — Lab Sample ID: 550-41397-2

Date Collected: 03/11/15 09:45 — **Matrix: Water**
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/18/15 00:27	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 17:22	YAF	TAL PHX
Total/NA	Analysis	300.0		10	59204	03/20/15 05:54	KLH	TAL PHX
Total/NA	Prep	200.7			58387	03/12/15 11:47	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58849	03/18/15 12:37	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58948	03/18/15 22:17	CDC	TAL PHX

Client Sample ID: IRA-6-031115 — Lab Sample ID: 550-41397-3

Date Collected: 03/11/15 10:55 — **Matrix: Water**
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/18/15 00:59	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 17:59	YAF	TAL PHX
Total/NA	Prep	200.7			58387	03/12/15 11:47	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58849	03/18/15 12:40	AJC	TAL PHX

Client Sample ID: IRA-12-210-031115 — Lab Sample ID: 550-41397-4

Date Collected: 03/11/15 12:05 — **Matrix: Water**
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/18/15 01:31	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 18:17	YAF	TAL PHX
Total/NA	Prep	200.7			58387	03/12/15 11:47	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58849	03/18/15 12:43	AJC	TAL PHX

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Client Sample ID: IRA-12-210--031115 DUP

Lab Sample ID: 550-41397-5
Date Collected: 03/11/15 12:05
Matrix: Water
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/18/15 02:03	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 18:35	YAF	TAL PHX
Total/NA	Prep	200.7			58387	03/12/15 11:47	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58849	03/18/15 12:47	AJC	TAL PHX

Client Sample ID: IRA-13-210-031115

Lab Sample ID: 550-41397-6
Date Collected: 03/11/15 13:35
Matrix: Water
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58750	03/17/15 20:56	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 18:54	YAF	TAL PHX
Total/NA	Analysis	300.0		10	59204	03/20/15 06:12	KLH	TAL PHX
Total/NA	Prep	200.7			58387	03/12/15 11:47	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58849	03/18/15 12:50	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58948	03/18/15 22:29	CDC	TAL PHX

Client Sample ID: IRA-13-210-031115 DUP

Lab Sample ID: 550-41397-7
Date Collected: 03/11/15 13:35
Matrix: Water
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58750	03/17/15 22:28	UT	TAL PHX
Total/NA	Analysis	300.0		1	58402	03/12/15 19:12	YAF	TAL PHX
Total/NA	Analysis	300.0		10	59204	03/20/15 06:31	KLH	TAL PHX
Total/NA	Prep	200.7			58387	03/12/15 11:47	SGO	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58849	03/18/15 12:53	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58948	03/18/15 22:41	CDC	TAL PHX

Client Sample ID: TB

Lab Sample ID: 550-41397-8
Date Collected: 03/11/15 13:36
Matrix: Water
Date Received: 03/11/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58750	03/17/15 19:54	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41397-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

550-41397

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 1

3/28/2015

Client Name/Address: AMEC, 4600 e washington, Phoenix AZ 85034

Project/PO Number: Miracle Mile WQARF, 14204 2030.5.3

Project Manager: Aliang Gu

Phone Number: 602-733-6000

Sampler: Sargent/Combs

Fax Number:

Analysis Required

550-41397 Chain of Custody

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260 LL	300.0 Nitrate	200.7 Total Chromium	2320B+300.0 alkalinity+ anions (Cl, SO4, NO3, Bromide, Alkalinity)	200.7 Metals (K, Na, Ca, Mg, boron, total Chromium)					Special Instructions
IRA-25-031115	Aq	~~40ml~~ 250ml	5	3/11/15	843	HCl HNO3	X	X	X							ADEQ # 61402
IRA-8-031115		40ml 250ml 500ml	5	3/11/15	945	HCl HNO3	X			X	X					ADEQ # 57687
IRA-6-031115		40ml 250ml	5	3/11/15	1055	HCl HNO3	X	X	X							ADEQ # 57686
IRA-12-210-031115		40ml 250ml	5	3/11/15	1205	HCl HNO3	X	X	X							ADEQ # 61484
IRA-12-210-031115-DUP		40ml 250ml	5	3/11/15	1205	HCl HNO3	X	X	X							ADEQ # 61484
IRA-13-210-031115		40ml 250ml 500ml	5	3/11/15	1335	HCl HNO3	X			X	X					ADEQ # 61507
IRA-13-210-031115-DUP		40ml 250ml 500ml	5	3/11/15	1335	HCl HNO3	X			X	X					ADEQ # 61507
TB	Aq	40ml	81	3/11/15	1336	HCl	X									

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	3/11/15 1415	[signature]	3-11-15 1415
[signature]	3-11-15 1530		
Fed Ex		Received in Lab By: [signature]	3/12/15 9:45

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

1-7

3 (c) (p) (x)

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41397-1

Login Number: 41397

List Source: TestAmerica Phoenix

List Number: 1

Creator: Gaska, Kristinena

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41498-1
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/24/2015 4:27:45 PM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
B1	Target analyte detected in method blank at or above the method reporting limit.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
D2	Sample required dilution due to high concentration of analyte.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Job ID: 550-41498-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41498-1

Comments
No additional comments.

Receipt
The samples were received on 3/12/2015 2:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.6º C and 2.1º C.

GC/MS VOA
Method(s) 8260B: The method blank for batch 58765 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, Toluene, and Naphthalene above the reporting limit (RL).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41498-1	IRA-1-031215	Water	03/12/15 09:02	03/12/15 14:20
550-41498-2	IRA-7-031215	Water	03/12/15 10:20	03/12/15 14:20
550-41498-3	IRA-10-230-031215	Water	03/12/15 12:05	03/12/15 14:20
550-41498-4	IRA-5-031215	Water	03/12/15 13:53	03/12/15 14:20
550-41498-5	TB	Water	03/12/15 13:54	03/12/15 14:20

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Client Sample ID: IRA-1-031215 — Lab Sample ID: 550-41498-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	44		0.50	0.15	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.5		0.50	0.21	ug/L	1		8260B	Total/NA
Naphthalene	1.3	E4	2.5	0.51	ug/L	1		8260B	Total/NA
N-Propylbenzene	0.53		0.50	0.21	ug/L	1		8260B	Total/NA
Tetrachloroethene	34		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	1.3		0.50	0.24	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	6.8		0.50	0.15	ug/L	1		8260B	Total/NA
Nitrate as N	6.3		0.10	0.051	mg/L	1		300.0	Total/NA
Chloride	63		2.0	0.29	mg/L	1		300.0	Total/NA
Bromide	0.24	E4	0.50	0.051	mg/L	1		300.0	Total/NA
Sulfate	190	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.20		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	24		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	0.66	E4	2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.0		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	200		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.020		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	200		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	200		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-7-031215 — Lab Sample ID: 550-41498-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.82		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	0.64		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	8.8		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.040		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-10-230-031215 — Lab Sample ID: 550-41498-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3		0.50	0.23	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.56		0.50	0.18	ug/L	1		8260B	Total/NA
Nitrate as N	7.1		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.019		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-5-031215 — Lab Sample ID: 550-41498-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
n-Butylbenzene	0.42	E4	0.50	0.21	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.8		0.50	0.23	ug/L	1		8260B	Total/NA
Naphthalene	1.6	E4	2.5	0.51	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.61		0.50	0.18	ug/L	1		8260B	Total/NA
1,2,3-Trichlorobenzene	0.97	E4	1.0	0.45	ug/L	1		8260B	Total/NA
Trichloroethene	6.4		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	7.2		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.097		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41498-5

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB (Continued)

Lab Sample ID: 550-41498-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.78	E4	2.5	0.51	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Client Sample ID: IRA-1-031215

Date Collected: 03/12/15 09:02
Date Received: 03/12/15 14:20

Lab Sample ID: 550-41498-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 14:33	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 14:33	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 14:33	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 14:33	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 14:33	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 14:33	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 14:33	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 14:33	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 14:33	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 14:33	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 14:33	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 14:33	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 14:33	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 14:33	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 14:33	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 14:33	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 14:33	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 14:33	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 14:33	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 14:33	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 14:33	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 14:33	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 14:33	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 14:33	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 14:33	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 14:33	1
Dichlorodifluoromethane	**44**		0.50	0.15	ug/L			03/18/15 14:33	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 14:33	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 14:33	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/18/15 14:33	1
cis-1,2-Dichloroethene	**1.5**		0.50	0.21	ug/L			03/18/15 14:33	1
trans-1,2-Dichloroethene	ND	E8 L5	0.50	0.29	ug/L			03/18/15 14:33	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 14:33	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 14:33	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 14:33	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 14:33	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 14:33	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 14:33	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 14:33	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 14:33	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/18/15 14:33	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 14:33	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 14:33	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 14:33	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 14:33	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 14:33	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 14:33	1
Naphthalene	**1.3**	**E4**	2.5	0.51	ug/L			03/18/15 14:33	1
N-Propylbenzene	**0.53**		0.50	0.21	ug/L			03/18/15 14:33	1

Client Sample ID: IRA-1-031215

Lab Sample ID: 550-41498-1

Date Collected: 03/12/15 09:02

Matrix: Water

Date Received: 03/12/15 14:20

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 14:33	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 14:33	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 14:33	1
Tetrachloroethene	**34**		0.50	0.18	ug/L			03/18/15 14:33	1
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 14:33	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 14:33	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 14:33	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 14:33	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 14:33	1
Trichloroethene	**1.3**		0.50	0.24	ug/L			03/18/15 14:33	1
Trichlorofluoromethane	**6.8**		0.50	0.15	ug/L			03/18/15 14:33	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 14:33	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 14:33	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 14:33	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 14:33	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 14:33	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 14:33	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 14:33	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 14:33	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 14:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 14:33*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 14:33*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 14:33*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 14:33*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 14:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*03/18/15 14:33*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/18/15 14:33*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*03/18/15 14:33*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**6.3**		0.10	0.051	mg/L			03/13/15 18:13	1
Chloride	**63**		2.0	0.29	mg/L			03/13/15 18:13	1
Bromide	**0.24**	**E4**	0.50	0.051	mg/L			03/13/15 18:13	1
Sulfate	**190**	**D2**	20	2.1	mg/L			03/21/15 07:37	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.20**		0.050	0.0049	mg/L		03/13/15 14:42	03/18/15 21:01	1
Calcium	**24**		2.0	0.014	mg/L		03/13/15 14:42	03/18/15 21:01	1
Magnesium	**0.66**	**E4**	2.0	0.017	mg/L		03/13/15 14:42	03/18/15 21:01	1
Potassium	**2.0**		0.50	0.067	mg/L		03/13/15 14:42	03/18/15 21:01	1
Sodium	**200**		0.50	0.15	mg/L		03/13/15 14:42	03/18/15 21:01	1
Chromium	**0.020**		0.010	0.00050	mg/L		03/13/15 14:42	03/18/15 21:01	1

Client Sample ID: IRA-1-031215

Lab Sample ID: 550-41498-1

Date Collected: 03/12/15 09:02

Matrix: Water

Date Received: 03/12/15 14:20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**200**		6.0	6.0	mg/L			03/19/15 02:21	1
Bicarbonate Alkalinity as CaCO3	**200**		6.0	6.0	mg/L			03/19/15 02:21	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 02:21	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/19/15 02:21	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 02:21	1

Client Sample ID: IRA-7-031215

Lab Sample ID: 550-41498-2

Date Collected: 03/12/15 10:20

Matrix: Water

Date Received: 03/12/15 14:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 15:05	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 15:05	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 15:05	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 15:05	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 15:05	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 15:05	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 15:05	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 15:05	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 15:05	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 15:05	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 15:05	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 15:05	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 15:05	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 15:05	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 15:05	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 15:05	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 15:05	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 15:05	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 15:05	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 15:05	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 15:05	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 15:05	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 15:05	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 15:05	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 15:05	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 15:05	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 15:05	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 15:05	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 15:05	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/18/15 15:05	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 15:05	1
trans-1,2-Dichloroethene	ND	E8 L5	0.50	0.29	ug/L			03/18/15 15:05	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 15:05	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 15:05	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 15:05	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 15:05	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 15:05	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 15:05	1

Client Sample ID: IRA-7-031215

Lab Sample ID: 550-41498-2

Date Collected: 03/12/15 10:20

Matrix: Water

Date Received: 03/12/15 14:20

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 15:05	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 15:05	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/18/15 15:05	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 15:05	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 15:05	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 15:05	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 15:05	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 15:05	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 15:05	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/18/15 15:05	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 15:05	1
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 15:05	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 15:05	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 15:05	1
Tetrachloroethene	**0.82**		0.50	0.18	ug/L			03/18/15 15:05	1
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 15:05	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 15:05	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 15:05	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 15:05	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 15:05	1
Trichloroethene	**0.64**		0.50	0.24	ug/L			03/18/15 15:05	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 15:05	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 15:05	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 15:05	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 15:05	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 15:05	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 15:05	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 15:05	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 15:05	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 15:05	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 15:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 15:05*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 15:05*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 15:05*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 15:05*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 15:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*03/18/15 15:05*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/18/15 15:05*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*03/18/15 15:05*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**8.8**		0.10	0.051	mg/L			03/13/15 16:41	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Client Sample ID: IRA-7-031215

Lab Sample ID: 550-41498-2

Date Collected: 03/12/15 10:20
Matrix: Water
Date Received: 03/12/15 14:20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.040**		0.010	0.00050	mg/L		03/13/15 14:42	03/18/15 21:04	1

Client Sample ID: IRA-10-230-031215

Lab Sample ID: 550-41498-3

Date Collected: 03/12/15 12:05
Matrix: Water
Date Received: 03/12/15 14:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 15:37	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 15:37	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 15:37	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 15:37	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 15:37	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 15:37	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 15:37	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 15:37	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 15:37	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 15:37	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 15:37	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 15:37	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 15:37	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 15:37	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 15:37	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 15:37	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 15:37	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 15:37	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 15:37	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 15:37	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 15:37	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 15:37	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 15:37	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 15:37	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 15:37	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 15:37	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 15:37	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 15:37	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 15:37	1
1,1-Dichloroethene	**1.3**		0.50	0.23	ug/L			03/18/15 15:37	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 15:37	1
trans-1,2-Dichloroethene	ND	E8 L5	0.50	0.29	ug/L			03/18/15 15:37	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 15:37	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 15:37	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 15:37	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 15:37	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 15:37	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 15:37	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 15:37	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 15:37	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/18/15 15:37	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 15:37	1

Client Sample ID: IRA-10-230-031215

Lab Sample ID: 550-41498-3

Date Collected: 03/12/15 12:05

Matrix: Water

Date Received: 03/12/15 14:20

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 15:37	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 15:37	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 15:37	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 15:37	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 15:37	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/18/15 15:37	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 15:37	1
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 15:37	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 15:37	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 15:37	1
Tetrachloroethene	**0.56**		0.50	0.18	ug/L			03/18/15 15:37	1
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 15:37	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 15:37	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 15:37	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 15:37	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 15:37	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/18/15 15:37	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 15:37	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 15:37	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 15:37	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 15:37	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 15:37	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 15:37	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 15:37	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 15:37	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 15:37	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 15:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 15:37*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 15:37*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 15:37*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 15:37*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 15:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/18/15 15:37*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*03/18/15 15:37*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*03/18/15 15:37*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**7.1**		0.10	0.051	mg/L			03/13/15 16:59	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.019**		0.010	0.00050	mg/L		03/13/15 14:42	03/18/15 21:07	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Client Sample ID: IRA-5-031215

Date Collected: 03/12/15 13:53
Date Received: 03/12/15 14:20

Lab Sample ID: 550-41498-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 16:41	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 16:41	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 16:41	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 16:41	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 16:41	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 16:41	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 16:41	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 16:41	1
n-Butylbenzene	**0.42**	**E4**	0.50	0.21	ug/L			03/18/15 16:41	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 16:41	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 16:41	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 16:41	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 16:41	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 16:41	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 16:41	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 16:41	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 16:41	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 16:41	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 16:41	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 16:41	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 16:41	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 16:41	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 16:41	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 16:41	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 16:41	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 16:41	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 16:41	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 16:41	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 16:41	1
1,1-Dichloroethene	**1.8**		0.50	0.23	ug/L			03/18/15 16:41	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 16:41	1
trans-1,2-Dichloroethene	ND	E8 L5	0.50	0.29	ug/L			03/18/15 16:41	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 16:41	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 16:41	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 16:41	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 16:41	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 16:41	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 16:41	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 16:41	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 16:41	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/18/15 16:41	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 16:41	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 16:41	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 16:41	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 16:41	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 16:41	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 16:41	1
Naphthalene	**1.6**	**E4**	2.5	0.51	ug/L			03/18/15 16:41	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 16:41	1

Client Sample ID: IRA-5-031215

Lab Sample ID: 550-41498-4

Date Collected: 03/12/15 13:53
Matrix: Water
Date Received: 03/12/15 14:20

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 16:41	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 16:41	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 16:41	1
Tetrachloroethene	**0.61**		0.50	0.18	ug/L			03/18/15 16:41	1
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 16:41	1
1,2,3-Trichlorobenzene	**0.97**	**E4**	1.0	0.45	ug/L			03/18/15 16:41	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 16:41	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 16:41	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 16:41	1
Trichloroethene	**6.4**		0.50	0.24	ug/L			03/18/15 16:41	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 16:41	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 16:41	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 16:41	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 16:41	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 16:41	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 16:41	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 16:41	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 16:41	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 16:41	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 16:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 16:41*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 16:41*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 16:41*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 16:41*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 16:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*03/18/15 16:41*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/18/15 16:41*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*03/18/15 16:41*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**7.2**		0.10	0.051	mg/L			03/13/15 17:18	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.097**		0.010	0.00050	mg/L		03/13/15 14:42	03/18/15 21:11	1

Client Sample ID: TB

Lab Sample ID: 550-41498-5

Date Collected: 03/12/15 13:54
Matrix: Water
Date Received: 03/12/15 14:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 12:26	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 12:26	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 12:26	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 12:26	1

Client Sample ID: TB

Lab Sample ID: 550-41498-5

Date Collected: 03/12/15 13:54

Matrix: Water

Date Received: 03/12/15 14:20

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 12:26	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 12:26	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 12:26	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 12:26	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 12:26	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 12:26	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 12:26	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 12:26	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 12:26	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 12:26	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 12:26	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 12:26	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 12:26	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 12:26	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 12:26	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 12:26	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 12:26	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 12:26	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 12:26	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 12:26	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 12:26	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 12:26	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 12:26	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 12:26	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 12:26	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/18/15 12:26	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 12:26	1
trans-1,2-Dichloroethene	ND	E8 L5	0.50	0.29	ug/L			03/18/15 12:26	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 12:26	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 12:26	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 12:26	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 12:26	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 12:26	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 12:26	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 12:26	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 12:26	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/18/15 12:26	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 12:26	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 12:26	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 12:26	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 12:26	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 12:26	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 12:26	1
Naphthalene	**0.78**	**E4**	2.5	0.51	ug/L			03/18/15 12:26	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 12:26	1
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 12:26	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 12:26	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 12:26	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/18/15 12:26	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Client Sample ID: TB
Date Collected: 03/12/15 13:54
Date Received: 03/12/15 14:20

Lab Sample ID: 550-41498-5
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/18/15 12:26	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/18/15 12:26	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/18/15 12:26	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 12:26	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 12:26	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/18/15 12:26	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 12:26	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 12:26	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 12:26	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 12:26	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 12:26	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 12:26	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 12:26	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 12:26	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 12:26	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 12:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 12:26*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 12:26*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 12:26*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 12:26*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 12:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*03/18/15 12:26*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*03/18/15 12:26*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*03/18/15 12:26*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41325-C-9 MS	Matrix Spike	110	120	110
550-41325-C-9 MSD	Matrix Spike Duplicate	116	119	110
550-41498-1	IRA-1-031215	106	94	92
550-41498-2	IRA-7-031215	105	94	94
550-41498-3	IRA-10-230-031215	95	92	94
550-41498-4	IRA-5-031215	100	96	88
550-41498-5	TB	94	95	89
LCS 550-58765/3	Lab Control Sample	108	110	113
LCSD 550-58765/4	Lab Control Sample Dup	115	114	107
MB 550-58765/5	Method Blank	96	87	82

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-58765/5
Matrix: Water
Analysis Batch: 58765

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/18/15 09:02	1
Benzene	ND	E8	0.50	0.12	ug/L			03/18/15 09:02	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/18/15 09:02	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/18/15 09:02	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/18/15 09:02	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/18/15 09:02	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/18/15 09:02	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/18/15 09:02	1
n-Butylbenzene	0.710	B1	0.50	0.21	ug/L			03/18/15 09:02	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/18/15 09:02	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 09:02	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/18/15 09:02	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/18/15 09:02	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/18/15 09:02	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/18/15 09:02	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/18/15 09:02	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/18/15 09:02	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/18/15 09:02	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/18/15 09:02	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/18/15 09:02	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/18/15 09:02	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/18/15 09:02	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/18/15 09:02	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/18/15 09:02	1
1,3-Dichlorobenzene	0.189	E4	0.50	0.14	ug/L			03/18/15 09:02	1
1,4-Dichlorobenzene	0.248	E4	0.50	0.17	ug/L			03/18/15 09:02	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 09:02	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/18/15 09:02	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 09:02	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/18/15 09:02	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/18/15 09:02	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/18/15 09:02	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 09:02	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/18/15 09:02	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/18/15 09:02	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/18/15 09:02	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/18/15 09:02	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/18/15 09:02	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/18/15 09:02	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/18/15 09:02	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/18/15 09:02	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/18/15 09:02	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/18/15 09:02	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/18/15 09:02	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/18/15 09:02	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/18/15 09:02	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/18/15 09:02	1
Naphthalene	3.96	B1	2.5	0.51	ug/L			03/18/15 09:02	1

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

Lab Sample ID: MB 550-58765/5
Matrix: Water
Analysis Batch: 58765

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 09:02	1
Styrene	ND	E8	0.50	0.17	ug/L			03/18/15 09:02	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/18/15 09:02	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/18/15 09:02	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/18/15 09:02	1
Toluene	0.638	B1	0.50	0.28	ug/L			03/18/15 09:02	1
1,2,3-Trichlorobenzene	2.16	B1	1.0	0.45	ug/L			03/18/15 09:02	1
1,2,4-Trichlorobenzene	1.69	B1	1.0	0.32	ug/L			03/18/15 09:02	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/18/15 09:02	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/18/15 09:02	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/18/15 09:02	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/18/15 09:02	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/18/15 09:02	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/18/15 09:02	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/18/15 09:02	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/18/15 09:02	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/18/15 09:02	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/18/15 09:02	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/18/15 09:02	1
Hexane	ND	E8	2.0	1.6	ug/L			03/18/15 09:02	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/18/15 09:02	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/18/15 09:02*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/18/15 09:02*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/18/15 09:02*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/18/15 09:02*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/18/15 09:02*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*03/18/15 09:02*	*1*
Toluene-d8 (Surr)	*87*		*70 - 130*		*03/18/15 09:02*	*1*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*		*03/18/15 09:02*	*1*

Lab Sample ID: LCS 550-58765/3
Matrix: Water
Analysis Batch: 58765

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	31.2		ug/L		125	38 - 150
Benzene	25.0	26.7		ug/L		107	70 - 130
Bromobenzene	25.0	29.0		ug/L		116	70 - 130
Chlorobromomethane	25.0	25.4		ug/L		102	70 - 130
Dichlorobromomethane	25.0	28.0		ug/L		112	70 - 130
Bromoform	25.0	25.3		ug/L		101	69 - 129
Bromomethane	25.0	29.2		ug/L		117	57 - 138
2-Butanone (MEK)	25.0	30.9		ug/L		124	53 - 150

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

Lab Sample ID: LCS 550-58765/3
Matrix: Water
Analysis Batch: 58765

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	26.0		ug/L		104	70 - 130
sec-Butylbenzene	25.0	27.8		ug/L		111	70 - 130
Carbon disulfide	25.0	28.7		ug/L		115	64 - 145
Carbon tetrachloride	25.0	28.5		ug/L		114	70 - 143
Chlorobenzene	25.0	28.3		ug/L		113	70 - 130
Chloroethane	25.0	25.7		ug/L		103	66 - 131
Chloroform	25.0	28.5		ug/L		114	70 - 130
Chloromethane	25.0	26.7		ug/L		107	56 - 129
2-Chlorotoluene	25.0	28.6		ug/L		114	70 - 130
4-Chlorotoluene	25.0	29.3		ug/L		117	70 - 130
Chlorodibromomethane	25.0	27.1		ug/L		109	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.5		ug/L		106	63 - 146
Ethylene Dibromide	25.0	29.0		ug/L		116	70 - 130
Dibromomethane	25.0	25.7		ug/L		103	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130
1,4-Dichlorobenzene	25.0	27.4		ug/L		110	70 - 130
Dichlorodifluoromethane	25.0	21.8		ug/L		87	46 - 144
1,1-Dichloroethane	25.0	28.9		ug/L		115	70 - 130
1,2-Dichloroethane	25.0	27.3		ug/L		109	66 - 139
1,1-Dichloroethene	25.0	28.4		ug/L		114	63 - 131
cis-1,2-Dichloroethene	25.0	28.4		ug/L		114	70 - 130
trans-1,2-Dichloroethene	25.0	29.0		ug/L		116	69 - 127
1,2-Dichloropropane	25.0	27.4		ug/L		109	70 - 130
1,3-Dichloropropane	25.0	28.9		ug/L		115	70 - 130
2,2-Dichloropropane	25.0	29.9		ug/L		119	69 - 139
1,1-Dichloropropene	25.0	29.2		ug/L		117	70 - 130
cis-1,3-Dichloropropene	25.0	29.3		ug/L		117	70 - 130
trans-1,3-Dichloropropene	25.0	25.7		ug/L		103	70 - 130
Ethylbenzene	25.0	28.4		ug/L		114	70 - 130
Hexachlorobutadiene	25.0	22.5		ug/L		90	76 - 145
2-Hexanone	25.0	28.5		ug/L		114	55 - 150
Iodomethane	25.0	28.6		ug/L		115	70 - 130
Isopropylbenzene	25.0	29.8		ug/L		119	88 - 141
4-Isopropyltoluene	25.0	26.3		ug/L		105	70 - 130
Methylene Chloride	25.0	28.7		ug/L		115	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	26.5		ug/L		106	64 - 142
Methyl tert-butyl ether	25.0	26.5		ug/L		106	70 - 130
Naphthalene	25.0	24.6		ug/L		99	78 - 143
N-Propylbenzene	25.0	29.2		ug/L		117	70 - 130
Styrene	25.0	28.3		ug/L		113	70 - 130
1,1,1,2-Tetrachloroethane	25.0	28.5		ug/L		114	70 - 130
1,1,2,2-Tetrachloroethane	25.0	30.1		ug/L		120	70 - 130
Tetrachloroethene	25.0	29.3		ug/L		117	70 - 130
Toluene	25.0	26.8		ug/L		107	70 - 130
1,2,3-Trichlorobenzene	25.0	23.9		ug/L		96	79 - 139
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		99	80 - 137
1,1,1-Trichloroethane	25.0	29.3		ug/L		117	71 - 131

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

Lab Sample ID: LCS 550-58765/3
Matrix: Water
Analysis Batch: 58765

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	27.1		ug/L		108	70 - 130
Trichloroethene	25.0	29.6		ug/L		119	70 - 130
Trichlorofluoromethane	25.0	27.7		ug/L		111	69 - 150
1,2,3-Trichloropropane	25.0	27.6		ug/L		110	70 - 130
1,2,4-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130
1,3,5-Trimethylbenzene	25.0	28.8		ug/L		115	70 - 130
Vinyl acetate	25.0	26.3		ug/L		105	67 - 148
Vinyl chloride	25.0	28.6		ug/L		115	65 - 137
Xylenes, Total	50.0	55.8		ug/L		112	70 - 130
Butadiene	25.0	29.0		ug/L		116	12 - 150
Hexane	25.0	28.4		ug/L		114	54 - 132
m-Xylene & p-Xylene	25.0	27.1		ug/L		108	70 - 130
o-Xylene	25.0	28.7		ug/L		115	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*110*		*70 - 130*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: LCSD 550-58765/4
Matrix: Water
Analysis Batch: 58765

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	27.9		ug/L		112	38 - 150	11	35
Benzene	25.0	28.8		ug/L		115	70 - 130	8	20
Bromobenzene	25.0	30.3		ug/L		121	70 - 130	4	20
Chlorobromomethane	25.0	28.0		ug/L		112	70 - 130	10	20
Dichlorobromomethane	25.0	28.7		ug/L		115	70 - 130	2	20
Bromoform	25.0	28.3		ug/L		113	69 - 129	11	20
Bromomethane	25.0	32.2		ug/L		129	57 - 138	10	20
2-Butanone (MEK)	25.0	31.8		ug/L		127	53 - 150	3	35
n-Butylbenzene	25.0	28.2		ug/L		113	70 - 130	8	20
sec-Butylbenzene	25.0	30.7		ug/L		123	70 - 130	10	20
Carbon disulfide	25.0	32.2		ug/L		129	64 - 145	11	33
Carbon tetrachloride	25.0	31.8		ug/L		127	70 - 143	11	20
Chlorobenzene	25.0	29.2		ug/L		117	70 - 130	3	20
Chloroethane	25.0	29.1		ug/L		117	66 - 131	13	20
Chloroform	25.0	30.8		ug/L		123	70 - 130	8	20
Chloromethane	25.0	28.0		ug/L		112	56 - 129	5	20
2-Chlorotoluene	25.0	29.8		ug/L		119	70 - 130	4	20
4-Chlorotoluene	25.0	31.9		ug/L		128	70 - 130	8	20
Chlorodibromomethane	25.0	26.9		ug/L		108	70 - 130	1	20
1,2-Dibromo-3-Chloropropane	25.0	26.7		ug/L		107	63 - 146	1	22
Ethylene Dibromide	25.0	28.3		ug/L		113	70 - 130	2	20
Dibromomethane	25.0	26.7		ug/L		107	70 - 130	4	20
1,2-Dichlorobenzene	25.0	29.9		ug/L		120	70 - 130	14	20
1,3-Dichlorobenzene	25.0	29.1		ug/L		116	70 - 130	8	20

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

Lab Sample ID: LCSD 550-58765/4
Matrix: Water
Analysis Batch: 58765

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	29.2		ug/L		117	70 - 130	6	20
Dichlorodifluoromethane	25.0	26.7		ug/L		107	46 - 144	20	23
1,1-Dichloroethane	25.0	31.4		ug/L		125	70 - 130	8	20
1,2-Dichloroethane	25.0	29.7		ug/L		119	66 - 139	9	20
1,1-Dichloroethene	25.0	32.4		ug/L		130	63 - 131	13	22
cis-1,2-Dichloroethene	25.0	29.8		ug/L		119	70 - 130	5	20
trans-1,2-Dichloroethene	25.0	33.4	L5	ug/L		133	69 - 127	14	20
1,2-Dichloropropane	25.0	29.7		ug/L		119	70 - 130	8	20
1,3-Dichloropropane	25.0	27.4		ug/L		110	70 - 130	5	20
2,2-Dichloropropane	25.0	33.1		ug/L		132	69 - 139	10	20
1,1-Dichloropropene	25.0	29.8		ug/L		119	70 - 130	2	20
cis-1,3-Dichloropropene	25.0	28.8		ug/L		115	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	26.3		ug/L		105	70 - 130	2	20
Ethylbenzene	25.0	28.5		ug/L		114	70 - 130	0	20
Hexachlorobutadiene	25.0	27.0		ug/L		108	76 - 145	18	20
2-Hexanone	25.0	28.0		ug/L		112	55 - 150	2	35
Iodomethane	25.0	32.4		ug/L		130	70 - 130	12	20
Isopropylbenzene	25.0	31.5		ug/L		126	88 - 141	5	20
4-Isopropyltoluene	25.0	28.9		ug/L		116	70 - 130	10	20
Methylene Chloride	25.0	31.5		ug/L		126	63 - 128	10	21
4-Methyl-2-pentanone (MIBK)	25.0	26.3		ug/L		105	64 - 142	1	25
Methyl tert-butyl ether	25.0	29.9		ug/L		119	70 - 130	12	20
Naphthalene	25.0	27.7		ug/L		111	78 - 143	12	20
N-Propylbenzene	25.0	30.5		ug/L		122	70 - 130	4	20
Styrene	25.0	27.7		ug/L		111	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	27.5		ug/L		110	70 - 130	4	20
1,1,2,2-Tetrachloroethane	25.0	30.3		ug/L		121	70 - 130	1	20
Tetrachloroethene	25.0	30.7		ug/L		123	70 - 130	5	20
Toluene	25.0	28.1		ug/L		112	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	25.2		ug/L		101	79 - 139	5	20
1,2,4-Trichlorobenzene	25.0	26.3		ug/L		105	80 - 137	6	20
1,1,1-Trichloroethane	25.0	30.6		ug/L		122	71 - 131	4	20
1,1,2-Trichloroethane	25.0	28.3		ug/L		113	70 - 130	5	20
Trichloroethene	25.0	30.0		ug/L		120	70 - 130	1	20
Trichlorofluoromethane	25.0	31.5		ug/L		126	69 - 150	13	22
1,2,3-Trichloropropane	25.0	28.7		ug/L		115	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	29.7		ug/L		119	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	31.9		ug/L		127	70 - 130	10	20
Vinyl acetate	25.0	28.4		ug/L		114	67 - 148	8	22
Vinyl chloride	25.0	29.7		ug/L		119	65 - 137	3	20
Xylenes, Total	50.0	56.9		ug/L		114	70 - 130	2	20
Butadiene	25.0	32.7		ug/L		131	12 - 150	12	35
Hexane	25.0	31.5		ug/L		126	54 - 132	11	28
m-Xylene & p-Xylene	25.0	27.5		ug/L		110	70 - 130	2	20
o-Xylene	25.0	29.4		ug/L		117	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*115*		*70 - 130*

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

Lab Sample ID: LCSD 550-58765/4
Matrix: Water
Analysis Batch: 58765

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*114*		*70 - 130*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 550-41325-C-9 MS
Matrix: Water
Analysis Batch: 58765

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	12.8		ug/L		51	29 - 139
Benzene	ND	E8	25.0	28.4		ug/L		114	68 - 131
Bromobenzene	ND	E8	25.0	31.7		ug/L		127	70 - 130
Chlorobromomethane	ND	E8	25.0	27.1		ug/L		108	64 - 132
Dichlorobromomethane	ND	E8	25.0	27.3		ug/L		109	63 - 138
Bromoform	ND	E8	25.0	27.3		ug/L		109	60 - 128
Bromomethane	ND	E8	25.0	28.4		ug/L		113	47 - 144
2-Butanone (MEK)	ND	E8	25.0	24.8		ug/L		99	31 - 143
n-Butylbenzene	ND	E8	25.0	26.5		ug/L		106	69 - 140
sec-Butylbenzene	ND	E8	25.0	28.5		ug/L		114	72 - 136
Carbon disulfide	ND	E8	25.0	27.7		ug/L		111	45 - 150
Carbon tetrachloride	ND	E8	25.0	30.2		ug/L		121	65 - 147
Chlorobenzene	ND	E8	25.0	26.9		ug/L		108	70 - 130
Chloroethane	ND	E8	25.0	24.6		ug/L		98	57 - 139
Chloroform	0.54		25.0	28.4		ug/L		112	63 - 131
Chloromethane	ND	E8	25.0	25.1		ug/L		100	47 - 134
2-Chlorotoluene	ND	E8	25.0	30.8		ug/L		123	71 - 131
4-Chlorotoluene	ND	E8	25.0	30.7		ug/L		123	70 - 130
Chlorodibromomethane	ND	E8	25.0	26.3		ug/L		105	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	30.5		ug/L		122	53 - 145
Ethylene Dibromide	ND	E8	25.0	26.0		ug/L		104	70 - 130
Dibromomethane	ND	E8	25.0	24.8		ug/L		99	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	27.7		ug/L		111	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	26.4		ug/L		105	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	27.6		ug/L		110	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	24.6		ug/L		99	40 - 148
1,1-Dichloroethane	ND	E8	25.0	27.9		ug/L		112	62 - 130
1,2-Dichloroethane	ND	E8	25.0	26.8		ug/L		107	54 - 147
1,1-Dichloroethene	ND	E8	25.0	28.1		ug/L		112	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	27.4		ug/L		109	65 - 127
trans-1,2-Dichloroethene	ND	E8 L5	25.0	29.2		ug/L		117	62 - 131
1,2-Dichloropropane	ND	E8	25.0	27.1		ug/L		108	68 - 126
1,3-Dichloropropane	ND	E8	25.0	27.0		ug/L		108	68 - 129
2,2-Dichloropropane	ND	E8	25.0	29.4		ug/L		118	60 - 146
1,1-Dichloropropene	ND	E8	25.0	28.6		ug/L		114	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	25.5		ug/L		102	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	24.3		ug/L		97	58 - 136
Ethylbenzene	ND	E8	25.0	26.6		ug/L		106	74 - 134
Hexachlorobutadiene	ND	E8	25.0	26.1		ug/L		104	69 - 150
2-Hexanone	ND	E8	25.0	19.1		ug/L		76	40 - 142

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

Lab Sample ID: 550-41325-C-9 MS
Matrix: Water
Analysis Batch: 58765

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND	E8	25.0	28.2		ug/L		113	53 - 150
Isopropylbenzene	ND	E8	25.0	31.8		ug/L		127	80 - 146
4-Isopropyltoluene	ND	E8	25.0	27.2		ug/L		109	70 - 133
Methylene Chloride	ND	E8	25.0	27.1		ug/L		108	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	25.0		ug/L		100	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	27.5		ug/L		110	67 - 138
Naphthalene	ND	E8	25.0	23.9		ug/L		95	67 - 146
N-Propylbenzene	ND	E8	25.0	30.2		ug/L		121	74 - 140
Styrene	ND	E8	25.0	25.6		ug/L		102	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	26.2		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	30.1		ug/L		120	63 - 137
Tetrachloroethene	5.7		25.0	32.9		ug/L		109	67 - 131
Toluene	0.88		25.0	27.9		ug/L		108	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	25.3		ug/L		101	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	24.9		ug/L		100	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	28.8		ug/L		115	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	27.3		ug/L		109	63 - 132
Trichloroethene	ND	E8	25.0	28.7		ug/L		115	66 - 132
Trichlorofluoromethane	ND	E8	25.0	28.1		ug/L		112	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	28.4		ug/L		114	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	27.6		ug/L		110	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	30.0		ug/L		120	66 - 137
Vinyl acetate	ND	E8	25.0	25.5		ug/L		102	47 - 150
Vinyl chloride	ND	E8	25.0	26.3		ug/L		105	55 - 146
Xylenes, Total	ND	E8	50.0	51.4		ug/L		103	68 - 131
Butadiene	ND	E8	25.0	28.9		ug/L		116	10 - 150
Hexane	ND	E8	25.0	29.1		ug/L		116	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	24.9		ug/L		99	58 - 138
o-Xylene	ND	E8	25.0	26.5		ug/L		106	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*120*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 550-41325-C-9 MSD
Matrix: Water
Analysis Batch: 58765

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	16.6		ug/L		66	29 - 139	26	35
Benzene	ND	E8	25.0	28.7		ug/L		115	68 - 131	1	32
Bromobenzene	ND	E8	25.0	29.0		ug/L		116	70 - 130	9	28
Chlorobromomethane	ND	E8	25.0	26.2		ug/L		105	64 - 132	3	35
Dichlorobromomethane	ND	E8	25.0	28.4		ug/L		114	63 - 138	4	31
Bromoform	ND	E8	25.0	28.1		ug/L		112	60 - 128	3	31
Bromomethane	ND	E8	25.0	28.8		ug/L		115	47 - 144	2	35
2-Butanone (MEK)	ND	E8	25.0	31.5		ug/L		126	31 - 143	24	35

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

Lab Sample ID: 550-41325-C-9 MSD
Matrix: Water
Analysis Batch: 58765

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene	ND	E8	25.0	26.9		ug/L		108	69 - 140	1	32
sec-Butylbenzene	ND	E8	25.0	28.7		ug/L		115	72 - 136	1	33
Carbon disulfide	ND	E8	25.0	30.5		ug/L		122	45 - 150	10	35
Carbon tetrachloride	ND	E8	25.0	30.6		ug/L		122	65 - 147	1	35
Chlorobenzene	ND	E8	25.0	28.6		ug/L		114	70 - 130	6	30
Chloroethane	ND	E8	25.0	26.2		ug/L		105	57 - 139	6	35
Chloroform	0.54		25.0	29.4		ug/L		115	63 - 131	3	33
Chloromethane	ND	E8	25.0	25.6		ug/L		102	47 - 134	2	35
2-Chlorotoluene	ND	E8	25.0	28.3		ug/L		113	71 - 131	8	29
4-Chlorotoluene	ND	E8	25.0	28.8		ug/L		115	70 - 130	6	28
Chlorodibromomethane	ND	E8	25.0	27.8		ug/L		111	65 - 134	5	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	32.7		ug/L		131	53 - 145	7	35
Ethylene Dibromide	ND	E8	25.0	31.1		ug/L		124	70 - 130	18	33
Dibromomethane	ND	E8	25.0	28.7		ug/L		115	66 - 136	14	35
1,2-Dichlorobenzene	ND	E8	25.0	28.0		ug/L		112	70 - 130	1	27
1,3-Dichlorobenzene	ND	E8	25.0	26.7		ug/L		107	70 - 130	1	28
1,4-Dichlorobenzene	ND	E8	25.0	27.4		ug/L		110	70 - 130	1	26
Dichlorodifluoromethane	ND	E8	25.0	26.0		ug/L		104	40 - 148	6	35
1,1-Dichloroethane	ND	E8	25.0	28.9		ug/L		116	62 - 130	3	34
1,2-Dichloroethane	ND	E8	25.0	27.3		ug/L		109	54 - 147	2	35
1,1-Dichloroethene	ND	E8	25.0	30.9		ug/L		123	57 - 137	9	35
cis-1,2-Dichloroethene	ND	E8	25.0	28.8		ug/L		115	65 - 127	5	34
trans-1,2-Dichloroethene	ND	E8 L5	25.0	30.9		ug/L		123	62 - 131	5	35
1,2-Dichloropropane	ND	E8	25.0	29.0		ug/L		116	68 - 126	7	32
1,3-Dichloropropane	ND	E8	25.0	29.0		ug/L		116	68 - 129	7	33
2,2-Dichloropropane	ND	E8	25.0	30.0		ug/L		120	60 - 146	2	35
1,1-Dichloropropene	ND	E8	25.0	30.2		ug/L		121	64 - 134	5	34
cis-1,3-Dichloropropene	ND	E8	25.0	27.9		ug/L		112	63 - 135	9	35
trans-1,3-Dichloropropene	ND	E8	25.0	26.4		ug/L		106	58 - 136	8	35
Ethylbenzene	ND	E8	25.0	27.4		ug/L		109	74 - 134	3	32
Hexachlorobutadiene	ND	E8	25.0	25.8		ug/L		103	69 - 150	1	32
2-Hexanone	ND	E8	25.0	27.1		ug/L		108	40 - 142	35	35
Iodomethane	ND	E8	25.0	29.6		ug/L		118	53 - 150	5	35
Isopropylbenzene	ND	E8	25.0	29.0		ug/L		116	80 - 146	9	32
4-Isopropyltoluene	ND	E8	25.0	26.5		ug/L		106	70 - 133	2	32
Methylene Chloride	ND	E8	25.0	28.5		ug/L		114	55 - 133	5	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	30.1		ug/L		120	52 - 143	19	35
Methyl tert-butyl ether	ND	E8	25.0	29.0		ug/L		116	67 - 138	6	21
Naphthalene	ND	E8	25.0	28.5		ug/L		114	67 - 146	18	29
N-Propylbenzene	ND	E8	25.0	29.3		ug/L		117	74 - 140	3	32
Styrene	ND	E8	25.0	25.9		ug/L		104	43 - 144	1	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	26.8		ug/L		107	70 - 130	2	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	31.5		ug/L		126	63 - 137	5	32
Tetrachloroethene	5.7		25.0	35.2		ug/L		118	67 - 131	7	31
Toluene	0.88		25.0	29.9		ug/L		116	65 - 138	7	33
1,2,3-Trichlorobenzene	ND	E8	25.0	27.0		ug/L		108	74 - 139	6	26
1,2,4-Trichlorobenzene	ND	E8	25.0	25.4		ug/L		102	74 - 138	2	26
1,1,1-Trichloroethane	ND	E8	25.0	30.6		ug/L		122	64 - 138	6	35

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

Lab Sample ID: 550-41325-C-9 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND	E8	25.0	28.7		ug/L		115	63 - 132	5	35
Trichloroethene	ND	E8	25.0	29.4		ug/L		117	66 - 132	2	29
Trichlorofluoromethane	ND	E8	25.0	29.2		ug/L		117	62 - 150	4	35
1,2,3-Trichloropropane	ND	E8	25.0	27.8		ug/L		111	68 - 130	2	32
1,2,4-Trimethylbenzene	ND	E8	25.0	27.9		ug/L		112	63 - 135	1	31
1,3,5-Trimethylbenzene	ND	E8	25.0	28.7		ug/L		115	66 - 137	4	30
Vinyl acetate	ND	E8	25.0	27.9		ug/L		112	47 - 150	9	35
Vinyl chloride	ND	E8	25.0	27.8		ug/L		111	55 - 146	6	35
Xylenes, Total	ND	E8	50.0	54.7		ug/L		109	68 - 131	6	31
Butadiene	ND	E8	25.0	28.4		ug/L		114	10 - 150	2	35
Hexane	ND	E8	25.0	29.4		ug/L		118	46 - 139	1	35
m-Xylene & p-Xylene	ND	E8	25.0	26.3		ug/L		105	58 - 138	5	29
o-Xylene	ND	E8	25.0	28.4		ug/L		113	66 - 137	7	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*116*		*70 - 130*
Toluene-d8 (Surr)	*119*		*70 - 130*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58592/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58592

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/13/15 15:09	1
Chloride	ND	E8	2.0	0.29	mg/L			03/13/15 15:09	1
Bromide	ND	E8	0.50	0.051	mg/L			03/13/15 15:09	1
Sulfate	0.218	E4	2.0	0.21	mg/L			03/13/15 15:09	1

Lab Sample ID: LCS 550-58592/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.02		mg/L		100	90 - 110
Chloride	20.0	19.6		mg/L		98	90 - 110
Bromide	4.00	3.83		mg/L		96	90 - 110
Sulfate	20.0	20.4		mg/L		102	90 - 110

Lab Sample ID: LCSD 550-58592/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58592

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.03		mg/L		101	90 - 110	0	20
Chloride	20.0	19.6		mg/L		98	90 - 110	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-58592/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58592

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			4.00	3.87		mg/L		97	90 - 110	1	20
Sulfate			20.0	20.5		mg/L		102	90 - 110	0	20

Lab Sample ID: 550-41498-4 MS — **Client Sample ID: IRA-5-031215**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58592

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	7.2		4.00	10.6		mg/L		87	80 - 120		
Chloride	120	E2 M3	20.0	127	E2 M3	mg/L		41	80 - 120		
Bromide	0.51		4.00	4.09		mg/L		90	80 - 120		
Sulfate	230	E2 M3	20.0	240	E2 M3	mg/L		25	80 - 120		

Lab Sample ID: 550-41498-4 MSD — **Client Sample ID: IRA-5-031215**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58592

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	7.2		4.00	10.7		mg/L		87	80 - 120	0	20
Chloride	120	E2 M3	20.0	127	E2 M3	mg/L		41	80 - 120	0	20
Bromide	0.51		4.00	4.14		mg/L		91	80 - 120	1	20
Sulfate	230	E2 M3	20.0	240	E2 M3	mg/L		25	80 - 120	0	20

Lab Sample ID: MB 550-59210/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59210

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/20/15 22:25	1
Chloride	ND	E8	2.0	0.29	mg/L			03/20/15 22:25	1
Bromide	ND	E8	0.50	0.051	mg/L			03/20/15 22:25	1
Sulfate	0.210	E4	2.0	0.21	mg/L			03/20/15 22:25	1

Lab Sample ID: LCS 550-59210/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59210

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			4.00	4.08		mg/L		102	90 - 110		
Chloride			20.0	19.9		mg/L		99	90 - 110		
Bromide			4.00	3.99		mg/L		100	90 - 110		
Sulfate			20.0	21.8		mg/L		109	90 - 110		

Lab Sample ID: LCSD 550-59210/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59210

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N			4.00	4.08		mg/L		102	90 - 110	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-59210/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59210

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			20.0	19.8		mg/L		99	90 - 110	0	20
Bromide			4.00	3.96		mg/L		99	90 - 110	1	20
Sulfate			20.0	21.8		mg/L		109	90 - 110	0	20

Lab Sample ID: 550-41383-V-1 MS ^50 — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59210

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	13		200	218		mg/L		102	80 - 120		
Chloride	1300		1000	2260		mg/L		98	80 - 120		
Bromide	4.9	E4	200	205		mg/L		100	80 - 120		
Sulfate	1400		1000	2380		mg/L		100	80 - 120		

Lab Sample ID: 550-41383-V-1 MSD ^50 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59210

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	13		200	217		mg/L		102	80 - 120	0	20
Chloride	1300		1000	2240		mg/L		95	80 - 120	1	20
Bromide	4.9	E4	200	203		mg/L		99	80 - 120	1	20
Sulfate	1400		1000	2360		mg/L		98	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58512/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58932 — **Prep Batch: 58512**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/13/15 14:42	03/18/15 20:04	1
Calcium	ND	E8	2.0	0.014	mg/L		03/13/15 14:42	03/18/15 20:04	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/13/15 14:42	03/18/15 20:04	1
Potassium	ND	E8	0.50	0.067	mg/L		03/13/15 14:42	03/18/15 20:04	1
Sodium	ND	E8	0.50	0.15	mg/L		03/13/15 14:42	03/18/15 20:04	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/13/15 14:42	03/18/15 20:04	1

Lab Sample ID: LCS 550-58512/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58932 — **Prep Batch: 58512**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron			1.00	0.985		mg/L		99	85 - 115		
Calcium			21.0	21.0		mg/L		100	85 - 115		
Magnesium			21.0	20.9		mg/L		99	85 - 115		
Potassium			20.0	19.5		mg/L		98	85 - 115		
Sodium			20.0	19.6		mg/L		98	85 - 115		
Chromium			1.00	1.01		mg/L		101	85 - 115		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-58512/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58932 — **Prep Batch: 58512**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.979		mg/L		98	85 - 115	1	20
Calcium	21.0	20.7		mg/L		99	85 - 115	2	20
Magnesium	21.0	20.4		mg/L		97	85 - 115	2	20
Potassium	20.0	19.1		mg/L		95	85 - 115	2	20
Sodium	20.0	19.1		mg/L		96	85 - 115	2	20
Chromium	1.00	0.998		mg/L		100	85 - 115	1	20

Lab Sample ID: 550-41488-F-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58932 — **Prep Batch: 58512**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.016	E4	1.00	1.00		mg/L		99	70 - 130
Calcium	3.8		21.0	24.8		mg/L		100	70 - 130
Magnesium	1.1	E4	21.0	21.8		mg/L		99	70 - 130
Potassium	0.31	E4	20.0	19.7		mg/L		97	70 - 130
Sodium	3.3		20.0	22.6		mg/L		96	70 - 130
Chromium	ND	E8	1.00	1.01		mg/L		101	70 - 130

Lab Sample ID: 550-41488-F-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58932 — **Prep Batch: 58512**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.016	E4	1.00	1.01		mg/L		99	70 - 130	1	20
Calcium	3.8		21.0	24.9		mg/L		100	70 - 130	0	20
Magnesium	1.1	E4	21.0	22.0		mg/L		99	70 - 130	1	20
Potassium	0.31	E4	20.0	19.7		mg/L		97	70 - 130	0	20
Sodium	3.3		20.0	22.8		mg/L		97	70 - 130	1	20
Chromium	ND	E8	1.00	1.01		mg/L		101	70 - 130	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-58948/63 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58948

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 550-58948/62
Matrix: Water
Analysis Batch: 58948

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			250	241		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-58948/76
Matrix: Water
Analysis Batch: 58948

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	247		mg/L		99	90 - 110	3	20

Lab Sample ID: 550-41313-A-3 DU
Matrix: Water
Analysis Batch: 58948

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	54			56.2		mg/L				4	20
Bicarbonate Alkalinity as CaCO3	54			56.2		mg/L				4	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

GC/MS VOA

Analysis Batch: 58765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41325-C-9 MS	Matrix Spike	Total/NA	Water	8260B	
550-41325-C-9 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
550-41498-1	IRA-1-031215	Total/NA	Water	8260B	
550-41498-2	IRA-7-031215	Total/NA	Water	8260B	
550-41498-3	IRA-10-230-031215	Total/NA	Water	8260B	
550-41498-4	IRA-5-031215	Total/NA	Water	8260B	
550-41498-5	TB	Total/NA	Water	8260B	
LCS 550-58765/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58765/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58765/5	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41498-1	IRA-1-031215	Total/NA	Water	300.0	
550-41498-2	IRA-7-031215	Total/NA	Water	300.0	
550-41498-3	IRA-10-230-031215	Total/NA	Water	300.0	
550-41498-4	IRA-5-031215	Total/NA	Water	300.0	
550-41498-4 MS	IRA-5-031215	Total/NA	Water	300.0	
550-41498-4 MSD	IRA-5-031215	Total/NA	Water	300.0	
LCS 550-58592/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58592/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58592/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 59210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41383-V-1 MS ^50	Matrix Spike	Total/NA	Water	300.0	
550-41383-V-1 MSD ^50	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-41498-1	IRA-1-031215	Total/NA	Water	300.0	
LCS 550-59210/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-59210/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-59210/2	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 58512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41488-F-1-B MS	Matrix Spike	Total/NA	Water	200.7	
550-41488-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-41498-1	IRA-1-031215	Total/NA	Water	200.7	
550-41498-2	IRA-7-031215	Total/NA	Water	200.7	
550-41498-3	IRA-10-230-031215	Total/NA	Water	200.7	
550-41498-4	IRA-5-031215	Total/NA	Water	200.7	
LCS 550-58512/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58512/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58512/1-A	Method Blank	Total/NA	Water	200.7	

Metals (Continued)

Analysis Batch: 58932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41488-F-1-B MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	58512
550-41488-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	58512
550-41498-1	IRA-1-031215	Total/NA	Water	200.7 Rev 4.4	58512
550-41498-2	IRA-7-031215	Total/NA	Water	200.7 Rev 4.4	58512
550-41498-3	IRA-10-230-031215	Total/NA	Water	200.7 Rev 4.4	58512
550-41498-4	IRA-5-031215	Total/NA	Water	200.7 Rev 4.4	58512
LCS 550-58512/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58512
LCSD 550-58512/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58512
MB 550-58512/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58512

General Chemistry

Analysis Batch: 58948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41313-A-3 DU	Duplicate	Total/NA	Water	SM 2320B	
550-41498-1	IRA-1-031215	Total/NA	Water	SM 2320B	
LCS 550-58948/62	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-58948/76	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-58948/63	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Client Sample ID: IRA-1-031215

Lab Sample ID: 550-41498-1
Date Collected: 03/12/15 09:02
Matrix: Water
Date Received: 03/12/15 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58765	03/18/15 14:33	UT	TAL PHX
Total/NA	Analysis	300.0		1	58592	03/13/15 18:13	YAF	TAL PHX
Total/NA	Analysis	300.0		10	59210	03/21/15 07:37	KLH	TAL PHX
Total/NA	Prep	200.7			58512	03/13/15 14:42	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58932	03/18/15 21:01	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58948	03/19/15 02:21	CDC	TAL PHX

Client Sample ID: IRA-7-031215

Lab Sample ID: 550-41498-2
Date Collected: 03/12/15 10:20
Matrix: Water
Date Received: 03/12/15 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58765	03/18/15 15:05	UT	TAL PHX
Total/NA	Analysis	300.0		1	58592	03/13/15 16:41	YAF	TAL PHX
Total/NA	Prep	200.7			58512	03/13/15 14:42	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58932	03/18/15 21:04	AJC	TAL PHX

Client Sample ID: IRA-10-230-031215

Lab Sample ID: 550-41498-3
Date Collected: 03/12/15 12:05
Matrix: Water
Date Received: 03/12/15 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58765	03/18/15 15:37	UT	TAL PHX
Total/NA	Analysis	300.0		1	58592	03/13/15 16:59	YAF	TAL PHX
Total/NA	Prep	200.7			58512	03/13/15 14:42	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58932	03/18/15 21:07	AJC	TAL PHX

Client Sample ID: IRA-5-031215

Lab Sample ID: 550-41498-4
Date Collected: 03/12/15 13:53
Matrix: Water
Date Received: 03/12/15 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58765	03/18/15 16:41	UT	TAL PHX
Total/NA	Analysis	300.0		1	58592	03/13/15 17:18	YAF	TAL PHX
Total/NA	Prep	200.7			58512	03/13/15 14:42	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58932	03/18/15 21:11	AJC	TAL PHX

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Client Sample ID: TB

Lab Sample ID: 550-41498-5

Date Collected: 03/12/15 13:54

Matrix: Water

Date Received: 03/12/15 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58765	03/18/15 12:26	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41498-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

550-41498

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page _____ of _____

3/24/2015

Client Name/Address: AMEC 4600 e washington Phoenix AZ 85034

Project/PO Number: Miracle Mile WQARF 14201420 30.5.3

Project Manager: Aliam Gu

Phone Number: 602-733-6000

Sampler: Sargent/Combs

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260 LL	300.0 Nitrate	200.7 total Chromium	2320B + 300.0 alkalinity (Cl, SO4, NO3, Bromide alkalinity)	200.7 metals (K, Na, Ca, Mg, boron, total Chromium)					Special Instructions
IRA-1-031215	Aq	40ml 250ml 500ml	5	3/12/15	902	HCl HNO3	X			X	X					ADEQ # 57689
IRA-7-031215	↓	40ml 250ml	5	↓	1020	↓	X	X	X							ADEQ # 57688
IRA-10-230-031215	↓	40ml 250ml	5	↓	1205	↓	X	X	X							ADEQ # 58228
IRA-5-031215	↓	40ml 250ml	5	↓	1353	↓	X	X	X							ADEQ # 58234
TB	Aq	40ml	1	3/12/15	1354	HCl	X									

550-41498 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
	3/12/15 1420		3-12-15 1420
Relinquished By:	Date/Time:	Received By:	Date/Time:
	3-12-15 1530		
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
			3-13-15 0945

Turnaround Time: (Check)
same day _____ 72 hours _____
24 hours _____ 5 days _____
48 hours _____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2.1

0.6 °C

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41498-1

Login Number: 41498

List Source: TestAmerica Phoenix

List Number: 1

Creator: Gaska, Kristinena

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	Check done at department level as required.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41605-1
TestAmerica Sample Delivery Group: 1420142030.5.3
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/24/2015 10:30:42 AM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
B1	Target analyte detected in method blank at or above the method reporting limit.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Job ID: 550-41605-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41605-1

Comments
No additional comments.

Receipt
The samples were received on 3/14/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.9º C and 2.1º C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for 4-Bromofluorobenzene and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS will be flagged with an N1 and reported, see batch 58715.

Method(s) 8260B: The method blank for batch 58715 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, and Naphthalene above the reporting limit (RL). All samples with no hits will be reported with a B1 qualifier. Samples with hits were re-analyzed, see batch 58715.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41605-1	IRA-26-031315	Water	03/13/15 10:40	03/13/15 14:30
550-41605-2	IRA-11-210-031315	Water	03/13/15 12:48	03/13/15 14:30
550-41605-3	Baker-031315	Water	03/13/15 14:10	03/13/15 14:30
550-41605-4	TB	Water	03/13/15 14:11	03/13/15 14:30

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: IRA-26-031315 — Lab Sample ID: 550-41605-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.84	E4	2.5	0.51	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.43	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	0.29	E4	0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	6.2		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.090		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-11-210-031315 — Lab Sample ID: 550-41605-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.2		0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.5		0.50	0.23	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.6		0.50	0.21	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.29	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.46	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	53		0.50	0.24	ug/L	1		8260B	Total/NA
Bromide	0.68		0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	150		2.0	0.29	mg/L	1		300.0	Total/NA
Nitrate as N	8.5		0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	290	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.18		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	130		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.055		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	7.9		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.3		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	140		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Baker-031315 — Lab Sample ID: 550-41605-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.2		0.50	0.24	ug/L	1		8260B	Total/NA
Chromium	0.071		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41605-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.88	E4	1.0	0.67	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: IRA-26-031315

Lab Sample ID: 550-41605-1

Date Collected: 03/13/15 10:40
Date Received: 03/13/15 14:30

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 21:48	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 21:48	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 21:48	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 21:48	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 21:48	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 21:48	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 21:48	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 21:48	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 21:48	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 21:48	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 21:48	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 21:48	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 21:48	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 21:48	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 21:48	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 21:48	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 21:48	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 21:48	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 21:48	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 21:48	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 21:48	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 21:48	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 21:48	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 21:48	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 21:48	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 21:48	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 21:48	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 21:48	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 21:48	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 21:48	1
Naphthalene	**0.84**	**E4**	2.5	0.51	ug/L			03/17/15 21:48	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1

Client Sample ID: IRA-26-031315

Lab Sample ID: 550-41605-1

Date Collected: 03/13/15 10:40
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 21:48	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 21:48	1
Tetrachloroethene	**0.43**	**E4**	0.50	0.18	ug/L			03/17/15 21:48	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 21:48	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 21:48	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 21:48	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 21:48	1
Trichloroethene	**0.29**	**E4**	0.50	0.24	ug/L			03/17/15 21:48	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 21:48	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 21:48	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 21:48	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 21:48	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 21:48	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 21:48	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 21:48	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 21:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 21:48*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 21:48*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 21:48*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 21:48*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 21:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/17/15 21:48*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/17/15 21:48*	*1*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*		*03/17/15 21:48*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**6.2**		0.10	0.051	mg/L			03/14/15 12:28	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.090**		0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 12:09	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 22:20	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 22:20	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 22:20	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 22:20	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 22:20	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 22:20	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 22:20	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 22:20	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 22:20	1
Chloroform	**1.2**		0.50	0.13	ug/L			03/17/15 22:20	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 22:20	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 22:20	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 22:20	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 22:20	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 22:20	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 22:20	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 22:20	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 22:20	1
1,1-Dichloroethene	**1.5**		0.50	0.23	ug/L			03/17/15 22:20	1
cis-1,2-Dichloroethene	**1.6**		0.50	0.21	ug/L			03/17/15 22:20	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 22:20	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 22:20	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 22:20	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 22:20	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 22:20	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 22:20	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 22:20	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 22:20	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 22:20	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 22:20	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 22:20	1
Methyl tert-butyl ether	**0.29**	**E4**	0.50	0.22	ug/L			03/17/15 22:20	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 22:20	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 22:20	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 22:20	1
Tetrachloroethene	**0.46**	**E4**	0.50	0.18	ug/L			03/17/15 22:20	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 22:20	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 22:20	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 22:20	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 22:20	1
Trichloroethene	**53**		0.50	0.24	ug/L			03/17/15 22:20	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 22:20	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 22:20	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 22:20	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 22:20	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 22:20	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 22:20	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 22:20	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 22:20	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 22:20*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 22:20*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 22:20*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 22:20*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 22:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*03/17/15 22:20*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*03/17/15 22:20*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/17/15 22:20*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.68**		0.50	0.051	mg/L			03/14/15 13:52	1
Chloride	**150**		2.0	0.29	mg/L			03/14/15 13:52	1
Nitrate as N	**8.5**		0.10	0.051	mg/L			03/14/15 13:52	1
Sulfate	**290**	**D2**	20	2.1	mg/L			03/19/15 18:51	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.18**		0.050	0.0049	mg/L		03/16/15 12:51	03/17/15 12:12	1
Calcium	**130**		2.0	0.014	mg/L		03/16/15 12:51	03/17/15 12:12	1
Chromium	**0.055**		0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 12:12	1
Magnesium	**7.9**		2.0	0.017	mg/L		03/16/15 12:51	03/17/15 12:12	1
Potassium	**3.3**		0.50	0.067	mg/L		03/16/15 12:51	03/17/15 12:12	1
Sodium	**140**		0.50	0.15	mg/L		03/16/15 12:51	03/17/15 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/19/15 03:20	1
Bicarbonate Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/19/15 03:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 03:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/19/15 03:20	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 03:20	1

Client Sample ID: Baker-031315

Lab Sample ID: 550-41605-3

Date Collected: 03/13/15 14:10
Matrix: Water
Date Received: 03/13/15 14:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/15/15 03:05	1
Benzene	ND	E8	0.50	0.12	ug/L			03/15/15 03:05	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/15/15 03:05	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/15/15 03:05	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/15/15 03:05	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/15/15 03:05	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 03:05	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/15/15 03:05	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/15/15 03:05	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/15/15 03:05	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/15/15 03:05	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/15/15 03:05	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/15/15 03:05	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/15/15 03:05	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/15/15 03:05	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/15/15 03:05	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/15/15 03:05	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 03:05	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/15/15 03:05	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/15/15 03:05	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/15/15 03:05	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/15/15 03:05	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/15/15 03:05	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/15/15 03:05	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/15/15 03:05	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/15/15 03:05	1

Client Sample ID: Baker-031315

Lab Sample ID: 550-41605-3

Date Collected: 03/13/15 14:10
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/15/15 03:05	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/15/15 03:05	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/15/15 03:05	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/15/15 03:05	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/15/15 03:05	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
Styrene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/15/15 03:05	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/15/15 03:05	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/15/15 03:05	1
Toluene	ND	E8	0.50	0.28	ug/L			03/15/15 03:05	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/15/15 03:05	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/15/15 03:05	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 03:05	1
Trichloroethene	**1.2**		0.50	0.24	ug/L			03/15/15 03:05	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/15/15 03:05	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 03:05	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/15/15 03:05	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/15/15 03:05	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/15/15 03:05	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/15/15 03:05	1
Hexane	ND	E8	2.0	1.6	ug/L			03/15/15 03:05	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 22:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/15/15 03:05*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/15/15 03:05*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/15/15 03:05*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/15/15 03:05*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/15/15 03:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*03/15/15 03:05*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*03/17/15 22:52*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/15/15 03:05*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/17/15 22:52*	*1*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*		*03/15/15 03:05*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/17/15 22:52*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.071**		0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 12:15	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: TB

Date Collected: 03/13/15 14:11
Date Received: 03/13/15 14:30

Lab Sample ID: 550-41605-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 18:38	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 18:38	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 18:38	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 18:38	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 18:38	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 18:38	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 18:38	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 18:38	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 18:38	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 18:38	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 18:38	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 18:38	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 18:38	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 18:38	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 18:38	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 18:38	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 18:38	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 18:38	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 18:38	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 18:38	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 18:38	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 18:38	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 18:38	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 18:38	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 18:38	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 18:38	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 18:38	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
Methylene Chloride	**0.88**	**E4**	1.0	0.67	ug/L			03/17/15 18:38	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 18:38	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 18:38	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 18:38	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: TB

Lab Sample ID: 550-41605-4

Date Collected: 03/13/15 14:11
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 18:38	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 18:38	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 18:38	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 18:38	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 18:38	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 18:38	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 18:38	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 18:38	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 18:38	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 18:38	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 18:38	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 18:38	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 18:38	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 18:38	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 18:38	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 18:38	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 18:38*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 18:38*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 18:38*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 18:38*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 18:38*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*03/17/15 18:38*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/17/15 18:38*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/17/15 18:38*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41605-1	IRA-26-031315	95	94	84
550-41605-2	IRA-11-210-031315	107	97	91
550-41605-3	Baker-031315	98	89	82
550-41605-3	Baker-031315	93	96	87
550-41605-3 MS	Baker-031315	86	83	76
550-41605-3 MSD	Baker-031315	84	84	79
550-41605-4	TB	99	94	91
LCS 550-58542/3	Lab Control Sample	76	76	77
LCS 550-58715/4	Lab Control Sample	81	83	84
LCSD 550-58542/4	Lab Control Sample Dup	83	86	87
LCSD 550-58715/5	Lab Control Sample Dup	86	84	75
MB 550-58542/5	Method Blank	97	86	86
MB 550-58715/6	Method Blank	97	95	88

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-58542/5
Matrix: Water
Analysis Batch: 58542

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/14/15 19:39	1
Benzene	ND	E8	0.50	0.12	ug/L			03/14/15 19:39	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/14/15 19:39	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/14/15 19:39	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/14/15 19:39	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/14/15 19:39	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/14/15 19:39	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/14/15 19:39	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/14/15 19:39	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/14/15 19:39	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/14/15 19:39	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/14/15 19:39	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/14/15 19:39	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/14/15 19:39	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/14/15 19:39	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/14/15 19:39	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/14/15 19:39	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/14/15 19:39	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/14/15 19:39	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/14/15 19:39	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/14/15 19:39	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/14/15 19:39	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/14/15 19:39	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/14/15 19:39	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/14/15 19:39	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/14/15 19:39	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/14/15 19:39	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/14/15 19:39	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/14/15 19:39	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/14/15 19:39	1
Naphthalene	0.856	E4	2.5	0.51	ug/L			03/14/15 19:39	1

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

Lab Sample ID: MB 550-58542/5
Matrix: Water
Analysis Batch: 58542

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
Styrene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/14/15 19:39	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/14/15 19:39	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/14/15 19:39	1
Toluene	ND	E8	0.50	0.28	ug/L			03/14/15 19:39	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/14/15 19:39	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/14/15 19:39	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/14/15 19:39	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/14/15 19:39	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/14/15 19:39	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/14/15 19:39	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/14/15 19:39	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/14/15 19:39	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/14/15 19:39	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/14/15 19:39	1
Hexane	ND	E8	2.0	1.6	ug/L			03/14/15 19:39	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/14/15 19:39*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/14/15 19:39*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/14/15 19:39*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/14/15 19:39*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/14/15 19:39*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*03/14/15 19:39*	*1*
Toluene-d8 (Surr)	*86*		*70 - 130*		*03/14/15 19:39*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*03/14/15 19:39*	*1*

Lab Sample ID: LCS 550-58542/3
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	29.3		ug/L		117	38 - 150
Benzene	25.0	23.8		ug/L		95	70 - 130
Bromobenzene	25.0	24.9		ug/L		100	70 - 130
Chlorobromomethane	25.0	22.7		ug/L		91	70 - 130
Dichlorobromomethane	25.0	23.6		ug/L		94	70 - 130
Bromoform	25.0	24.2		ug/L		97	69 - 129
Bromomethane	25.0	23.0		ug/L		92	57 - 138
2-Butanone (MEK)	25.0	28.7		ug/L		115	53 - 150
n-Butylbenzene	25.0	24.5		ug/L		98	70 - 130

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

Lab Sample ID: LCS 550-58542/3
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	25.0	25.1		ug/L		100	70 - 130
Carbon disulfide	25.0	24.8		ug/L		99	64 - 145
Carbon tetrachloride	25.0	24.4		ug/L		98	70 - 143
Chlorobenzene	25.0	23.7		ug/L		95	70 - 130
Chloroethane	25.0	22.8		ug/L		91	66 - 131
Chloroform	25.0	24.0		ug/L		96	70 - 130
Chloromethane	25.0	21.6		ug/L		86	56 - 129
2-Chlorotoluene	25.0	24.7		ug/L		99	70 - 130
4-Chlorotoluene	25.0	25.6		ug/L		103	70 - 130
Chlorodibromomethane	25.0	24.9		ug/L		99	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	21.9		ug/L		88	63 - 146
Ethylene Dibromide	25.0	22.7		ug/L		91	70 - 130
Dibromomethane	25.0	23.9		ug/L		96	70 - 130
1,2-Dichlorobenzene	25.0	23.5		ug/L		94	70 - 130
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	20.7		ug/L		83	46 - 144
1,1-Dichloroethane	25.0	23.4		ug/L		94	70 - 130
1,2-Dichloroethane	25.0	23.9		ug/L		96	66 - 139
1,1-Dichloroethene	25.0	23.8		ug/L		95	63 - 131
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	69 - 127
1,2-Dichloropropane	25.0	24.1		ug/L		97	70 - 130
1,3-Dichloropropane	25.0	24.2		ug/L		97	70 - 130
2,2-Dichloropropane	25.0	28.9		ug/L		116	69 - 139
1,1-Dichloropropene	25.0	24.4		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	25.7		ug/L		103	70 - 130
trans-1,3-Dichloropropene	25.0	23.4		ug/L		94	70 - 130
Ethylbenzene	25.0	24.3		ug/L		97	70 - 130
Hexachlorobutadiene	25.0	23.6		ug/L		94	76 - 145
2-Hexanone	25.0	24.3		ug/L		97	55 - 150
Iodomethane	25.0	24.4		ug/L		98	70 - 130
Isopropylbenzene	25.0	25.2		ug/L		101	88 - 141
4-Isopropyltoluene	25.0	24.6		ug/L		98	70 - 130
Methylene Chloride	25.0	21.8		ug/L		87	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	21.7		ug/L		87	64 - 142
Methyl tert-butyl ether	25.0	25.0		ug/L		100	70 - 130
Naphthalene	25.0	20.8		ug/L		83	78 - 143
N-Propylbenzene	25.0	25.3		ug/L		101	70 - 130
Styrene	25.0	23.2		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.0		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	70 - 130
Tetrachloroethene	25.0	25.1		ug/L		100	70 - 130
Toluene	25.0	23.1		ug/L		92	70 - 130
1,2,3-Trichlorobenzene	25.0	21.4		ug/L		85	79 - 139
1,2,4-Trichlorobenzene	25.0	20.0		ug/L		80	80 - 137
1,1,1-Trichloroethane	25.0	24.1		ug/L		97	71 - 131
1,1,2-Trichloroethane	25.0	23.4		ug/L		93	70 - 130

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

Lab Sample ID: LCS 550-58542/3
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	25.0	23.7		ug/L		95	70 - 130
Trichlorofluoromethane	25.0	24.9		ug/L		100	69 - 150
1,2,3-Trichloropropane	25.0	22.2		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	25.0	24.9		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 130
Vinyl acetate	25.0	24.6		ug/L		99	67 - 148
Vinyl chloride	25.0	23.8		ug/L		95	65 - 137
Xylenes, Total	50.0	47.9		ug/L		96	70 - 130
Butadiene	25.0	23.8		ug/L		95	12 - 150
Hexane	25.0	25.6		ug/L		102	54 - 132
m-Xylene & p-Xylene	25.0	23.7		ug/L		95	70 - 130
o-Xylene	25.0	24.2		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*76*		*70 - 130*
Toluene-d8 (Surr)	*76*		*70 - 130*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*

Lab Sample ID: LCSD 550-58542/4
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	28.7		ug/L		115	38 - 150	2	35
Benzene	25.0	24.6		ug/L		98	70 - 130	3	20
Bromobenzene	25.0	24.9		ug/L		100	70 - 130	0	20
Chlorobromomethane	25.0	23.4		ug/L		94	70 - 130	3	20
Dichlorobromomethane	25.0	24.3		ug/L		97	70 - 130	3	20
Bromoform	25.0	25.2		ug/L		101	69 - 129	4	20
Bromomethane	25.0	23.8		ug/L		95	57 - 138	3	20
2-Butanone (MEK)	25.0	27.8		ug/L		111	53 - 150	3	35
n-Butylbenzene	25.0	24.6		ug/L		98	70 - 130	0	20
sec-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	1	20
Carbon disulfide	25.0	25.3		ug/L		101	64 - 145	2	33
Carbon tetrachloride	25.0	25.5		ug/L		102	70 - 143	4	20
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130	6	20
Chloroethane	25.0	23.4		ug/L		94	66 - 131	3	20
Chloroform	25.0	24.5		ug/L		98	70 - 130	2	20
Chloromethane	25.0	23.5		ug/L		94	56 - 129	8	20
2-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130	2	20
4-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130	2	20
Chlorodibromomethane	25.0	26.3		ug/L		105	70 - 130	5	20
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		104	63 - 146	17	22
Ethylene Dibromide	25.0	25.1		ug/L		100	70 - 130	10	20
Dibromomethane	25.0	26.6		ug/L		107	70 - 130	11	20
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130	4	20
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	5	20
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	2	20

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

Lab Sample ID: LCSD 550-58542/4
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	25.0	22.2		ug/L		89	46 - 144	7	23
1,1-Dichloroethane	25.0	23.8		ug/L		95	70 - 130	1	20
1,2-Dichloroethane	25.0	24.5		ug/L		98	66 - 139	2	20
1,1-Dichloroethene	25.0	26.1		ug/L		105	63 - 131	9	22
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	0	20
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	69 - 127	4	20
1,2-Dichloropropane	25.0	23.9		ug/L		96	70 - 130	1	20
1,3-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	8	20
2,2-Dichloropropane	25.0	30.5		ug/L		122	69 - 139	5	20
1,1-Dichloropropene	25.0	25.7		ug/L		103	70 - 130	5	20
cis-1,3-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	6	20
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	8	20
Ethylbenzene	25.0	26.1		ug/L		104	70 - 130	7	20
Hexachlorobutadiene	25.0	23.6		ug/L		95	76 - 145	0	20
2-Hexanone	25.0	22.7		ug/L		91	55 - 150	7	35
Iodomethane	25.0	24.5		ug/L		98	70 - 130	0	20
Isopropylbenzene	25.0	25.5		ug/L		102	88 - 141	1	20
4-Isopropyltoluene	25.0	24.4		ug/L		97	70 - 130	1	20
Methylene Chloride	25.0	22.3		ug/L		89	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	26.1		ug/L		104	64 - 142	18	25
Methyl tert-butyl ether	25.0	27.6		ug/L		110	70 - 130	10	20
Naphthalene	25.0	23.0		ug/L		92	78 - 143	10	20
N-Propylbenzene	25.0	25.1		ug/L		100	70 - 130	1	20
Styrene	25.0	25.5		ug/L		102	70 - 130	9	20
1,1,1,2-Tetrachloroethane	25.0	24.7		ug/L		99	70 - 130	3	20
1,1,2,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130	7	20
Tetrachloroethene	25.0	26.8		ug/L		107	70 - 130	6	20
Toluene	25.0	24.3		ug/L		97	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	22.0		ug/L		88	79 - 139	3	20
1,2,4-Trichlorobenzene	25.0	21.3		ug/L		85	80 - 137	6	20
1,1,1-Trichloroethane	25.0	24.0		ug/L		96	71 - 131	1	20
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	70 - 130	8	20
Trichloroethene	25.0	25.2		ug/L		101	70 - 130	6	20
Trichlorofluoromethane	25.0	24.8		ug/L		99	69 - 150	0	22
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	70 - 130	13	20
1,2,4-Trimethylbenzene	25.0	24.8		ug/L		99	70 - 130	0	20
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	70 - 130	0	20
Vinyl acetate	25.0	27.8		ug/L		111	67 - 148	12	22
Vinyl chloride	25.0	24.4		ug/L		97	65 - 137	2	20
Xylenes, Total	50.0	51.4		ug/L		103	70 - 130	7	20
Butadiene	25.0	23.5		ug/L		94	12 - 150	2	35
Hexane	25.0	28.9		ug/L		116	54 - 132	12	28
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	70 - 130	7	20
o-Xylene	25.0	26.0		ug/L		104	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*83*		*70 - 130*
Toluene-d8 (Surr)	*86*		*70 - 130*

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

Lab Sample ID: LCSD 550-58542/4
Matrix: Water
Analysis Batch: 58542

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 550-41605-3 MS
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	19.5		ug/L		78	29 - 139
Benzene	ND	E8	25.0	25.3		ug/L		101	68 - 131
Bromobenzene	ND	E8	25.0	25.2		ug/L		101	70 - 130
Chlorobromomethane	ND	E8	25.0	24.7		ug/L		99	64 - 132
Dichlorobromomethane	ND	E8	25.0	26.0		ug/L		104	63 - 138
Bromoform	ND	E8	25.0	25.6		ug/L		102	60 - 128
Bromomethane	ND	E8	25.0	24.8		ug/L		99	47 - 144
2-Butanone (MEK)	ND	E8	25.0	22.8		ug/L		91	31 - 143
n-Butylbenzene	ND	E8	25.0	27.2		ug/L		109	69 - 140
sec-Butylbenzene	ND	E8	25.0	26.6		ug/L		106	72 - 136
Carbon disulfide	ND	E8	25.0	26.8		ug/L		107	45 - 150
Carbon tetrachloride	ND	E8	25.0	26.0		ug/L		104	65 - 147
Chlorobenzene	ND	E8	25.0	25.4		ug/L		102	70 - 130
Chloroethane	ND	E8	25.0	24.6		ug/L		98	57 - 139
Chloroform	ND	E8	25.0	26.2		ug/L		105	63 - 131
Chloromethane	ND	E8	25.0	23.8		ug/L		95	47 - 134
2-Chlorotoluene	ND	E8	25.0	26.4		ug/L		106	71 - 131
4-Chlorotoluene	ND	E8	25.0	26.5		ug/L		106	70 - 130
Chlorodibromomethane	ND	E8	25.0	26.4		ug/L		106	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.3		ug/L		97	53 - 145
Ethylene Dibromide	ND	E8	25.0	26.2		ug/L		105	70 - 130
Dibromomethane	ND	E8	25.0	26.7		ug/L		107	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	25.2		ug/L		101	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	26.3		ug/L		105	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	24.6		ug/L		99	40 - 148
1,1-Dichloroethane	ND	E8	25.0	25.8		ug/L		103	62 - 130
1,2-Dichloroethane	ND	E8	25.0	26.5		ug/L		106	54 - 147
1,1-Dichloroethene	ND	E8	25.0	27.3		ug/L		109	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	24.8		ug/L		99	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.1		ug/L		100	62 - 131
1,2-Dichloropropane	ND	E8	25.0	25.4		ug/L		102	68 - 126
1,3-Dichloropropane	ND	E8	25.0	26.4		ug/L		106	68 - 129
2,2-Dichloropropane	ND	E8	25.0	30.3		ug/L		121	60 - 146
1,1-Dichloropropene	ND	E8	25.0	27.1		ug/L		108	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	26.7		ug/L		107	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	23.4		ug/L		94	58 - 136
Ethylbenzene	ND	E8	25.0	26.0		ug/L		104	74 - 134
Hexachlorobutadiene	ND	E8	25.0	25.0		ug/L		100	69 - 150
2-Hexanone	ND	E8	25.0	20.1		ug/L		80	40 - 142
Iodomethane	ND	E8	25.0	26.1		ug/L		104	53 - 150

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

Lab Sample ID: 550-41605-3 MS
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	ND	E8	25.0	26.6		ug/L		106	80 - 146
4-Isopropyltoluene	ND	E8	25.0	26.6		ug/L		106	70 - 133
Methylene Chloride	ND	E8	25.0	24.3		ug/L		97	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	24.5		ug/L		98	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	28.4		ug/L		114	67 - 138
Naphthalene	ND	E8	25.0	24.2		ug/L		97	67 - 146
N-Propylbenzene	ND	E8	25.0	27.1		ug/L		108	74 - 140
Styrene	ND	E8	25.0	24.4		ug/L		98	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.2		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	28.8		ug/L		115	63 - 137
Tetrachloroethene	ND	E8	25.0	26.1		ug/L		104	67 - 131
Toluene	ND	E8	25.0	25.0		ug/L		100	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	21.6		ug/L		86	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	23.0		ug/L		92	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	26.8		ug/L		107	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	27.1		ug/L		108	63 - 132
Trichloroethene	1.2		25.0	25.9		ug/L		99	66 - 132
Trichlorofluoromethane	ND	E8	25.0	26.9		ug/L		108	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	24.6		ug/L		98	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	26.7		ug/L		107	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	27.8		ug/L		111	66 - 137
Vinyl acetate	ND	E8	25.0	25.6		ug/L		103	47 - 150
Vinyl chloride	ND	E8	25.0	24.4		ug/L		98	55 - 146
Xylenes, Total	ND	E8	50.0	51.6		ug/L		103	68 - 131
Butadiene	ND	E8	25.0	26.5		ug/L		106	10 - 150
Hexane	ND	E8	25.0	28.4		ug/L		114	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	25.3		ug/L		101	58 - 138
o-Xylene	ND	E8	25.0	26.3		ug/L		105	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: 550-41605-3 MSD
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	19.3		ug/L		77	29 - 139	1	35
Benzene	ND	E8	25.0	25.0		ug/L		100	68 - 131	1	32
Bromobenzene	ND	E8	25.0	26.8		ug/L		107	70 - 130	6	28
Chlorobromomethane	ND	E8	25.0	25.5		ug/L		102	64 - 132	3	35
Dichlorobromomethane	ND	E8	25.0	26.0		ug/L		104	63 - 138	0	31
Bromoform	ND	E8	25.0	25.5		ug/L		102	60 - 128	0	31
Bromomethane	ND	E8	25.0	24.2		ug/L		97	47 - 144	2	35
2-Butanone (MEK)	ND	E8	25.0	21.3		ug/L		85	31 - 143	7	35
n-Butylbenzene	ND	E8	25.0	24.7		ug/L		99	69 - 140	10	32

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

Lab Sample ID: 550-41605-3 MSD
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butylbenzene	ND	E8	25.0	26.0		ug/L		104	72 - 136	2	33
Carbon disulfide	ND	E8	25.0	25.6		ug/L		102	45 - 150	4	35
Carbon tetrachloride	ND	E8	25.0	26.4		ug/L		106	65 - 147	2	35
Chlorobenzene	ND	E8	25.0	25.3		ug/L		101	70 - 130	1	30
Chloroethane	ND	E8	25.0	24.5		ug/L		98	57 - 139	0	35
Chloroform	ND	E8	25.0	25.4		ug/L		102	63 - 131	3	33
Chloromethane	ND	E8	25.0	23.1		ug/L		92	47 - 134	3	35
2-Chlorotoluene	ND	E8	25.0	25.3		ug/L		101	71 - 131	4	29
4-Chlorotoluene	ND	E8	25.0	26.0		ug/L		104	70 - 130	2	28
Chlorodibromomethane	ND	E8	25.0	26.7		ug/L		107	65 - 134	1	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.3		ug/L		97	53 - 145	0	35
Ethylene Dibromide	ND	E8	25.0	25.5		ug/L		102	70 - 130	3	33
Dibromomethane	ND	E8	25.0	27.1		ug/L		109	66 - 136	2	35
1,2-Dichlorobenzene	ND	E8	25.0	25.8		ug/L		103	70 - 130	2	27
1,3-Dichlorobenzene	ND	E8	25.0	24.9		ug/L		100	70 - 130	3	28
1,4-Dichlorobenzene	ND	E8	25.0	25.6		ug/L		102	70 - 130	3	26
Dichlorodifluoromethane	ND	E8	25.0	22.7		ug/L		91	40 - 148	8	35
1,1-Dichloroethane	ND	E8	25.0	25.3		ug/L		101	62 - 130	2	34
1,2-Dichloroethane	ND	E8	25.0	26.6		ug/L		107	54 - 147	1	35
1,1-Dichloroethene	ND	E8	25.0	25.6		ug/L		102	57 - 137	6	35
cis-1,2-Dichloroethene	ND	E8	25.0	25.1		ug/L		100	65 - 127	1	34
trans-1,2-Dichloroethene	ND	E8	25.0	25.3		ug/L		101	62 - 131	1	35
1,2-Dichloropropane	ND	E8	25.0	25.6		ug/L		102	68 - 126	1	32
1,3-Dichloropropane	ND	E8	25.0	27.1		ug/L		108	68 - 129	2	33
2,2-Dichloropropane	ND	E8	25.0	28.8		ug/L		115	60 - 146	5	35
1,1-Dichloropropene	ND	E8	25.0	25.5		ug/L		102	64 - 134	6	34
cis-1,3-Dichloropropene	ND	E8	25.0	27.6		ug/L		111	63 - 135	3	35
trans-1,3-Dichloropropene	ND	E8	25.0	25.1		ug/L		100	58 - 136	7	35
Ethylbenzene	ND	E8	25.0	26.0		ug/L		104	74 - 134	0	32
Hexachlorobutadiene	ND	E8	25.0	22.8		ug/L		91	69 - 150	10	32
2-Hexanone	ND	E8	25.0	21.3		ug/L		85	40 - 142	6	35
Iodomethane	ND	E8	25.0	26.2		ug/L		105	53 - 150	1	35
Isopropylbenzene	ND	E8	25.0	26.1		ug/L		105	80 - 146	2	32
4-Isopropyltoluene	ND	E8	25.0	24.9		ug/L		100	70 - 133	7	32
Methylene Chloride	ND	E8	25.0	23.8		ug/L		95	55 - 133	2	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	26.3		ug/L		105	52 - 143	7	35
Methyl tert-butyl ether	ND	E8	25.0	29.4		ug/L		118	67 - 138	4	21
Naphthalene	ND	E8	25.0	23.1		ug/L		92	67 - 146	5	29
N-Propylbenzene	ND	E8	25.0	25.5		ug/L		102	74 - 140	6	32
Styrene	ND	E8	25.0	25.4		ug/L		101	43 - 144	4	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.6		ug/L		102	70 - 130	2	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.4		ug/L		110	63 - 137	5	32
Tetrachloroethene	ND	E8	25.0	25.8		ug/L		103	67 - 131	1	31
Toluene	ND	E8	25.0	25.3		ug/L		101	65 - 138	1	33
1,2,3-Trichlorobenzene	ND	E8	25.0	22.6		ug/L		90	74 - 139	4	26
1,2,4-Trichlorobenzene	ND	E8	25.0	21.4		ug/L		86	74 - 138	7	26
1,1,1-Trichloroethane	ND	E8	25.0	25.8		ug/L		103	64 - 138	4	35
1,1,2-Trichloroethane	ND	E8	25.0	26.2		ug/L		105	63 - 132	3	35

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

Lab Sample ID: 550-41605-3 MSD — **Client Sample ID: Baker-031315**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	1.2		25.0	27.6		ug/L		106	66 - 132	6	29
Trichlorofluoromethane	ND	E8	25.0	26.0		ug/L		104	62 - 150	4	35
1,2,3-Trichloropropane	ND	E8	25.0	25.9		ug/L		104	68 - 130	5	32
1,2,4-Trimethylbenzene	ND	E8	25.0	24.6		ug/L		99	63 - 135	8	31
1,3,5-Trimethylbenzene	ND	E8	25.0	25.3		ug/L		101	66 - 137	9	30
Vinyl acetate	ND	E8	25.0	27.7		ug/L		111	47 - 150	8	35
Vinyl chloride	ND	E8	25.0	23.9		ug/L		96	55 - 146	2	35
Xylenes, Total	ND	E8	50.0	50.9		ug/L		102	68 - 131	1	31
Butadiene	ND	E8	25.0	25.3		ug/L		101	10 - 150	5	35
Hexane	ND	E8	25.0	27.6		ug/L		111	46 - 139	3	35
m-Xylene & p-Xylene	ND	E8	25.0	25.5		ug/L		102	58 - 138	1	29
o-Xylene	ND	E8	25.0	25.4		ug/L		102	66 - 137	4	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*84*		*70 - 130*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*

Lab Sample ID: MB 550-58715/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 16:30	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 16:30	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 16:30	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 16:30	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 16:30	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 16:30	1
n-Butylbenzene	0.645	B1	0.50	0.21	ug/L			03/17/15 16:30	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 16:30	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 16:30	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 16:30	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 16:30	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 16:30	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 16:30	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
1,2-Dichlorobenzene	0.238	E4	0.50	0.22	ug/L			03/17/15 16:30	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1

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

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 16:30	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 16:30	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 16:30	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 16:30	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 16:30	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 16:30	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 16:30	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Methylene Chloride	0.670	E4	1.0	0.67	ug/L			03/17/15 16:30	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 16:30	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
Naphthalene	3.06	B1	2.5	0.51	ug/L			03/17/15 16:30	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 16:30	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 16:30	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 16:30	1
1,2,3-Trichlorobenzene	1.63	B1	1.0	0.45	ug/L			03/17/15 16:30	1
1,2,4-Trichlorobenzene	1.16	B1	1.0	0.32	ug/L			03/17/15 16:30	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 16:30	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 16:30	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 16:30	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 16:30	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 16:30	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 16:30	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 16:30	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 16:30*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 16:30*	*1*

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

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/17/15 16:30	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/17/15 16:30	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/17/15 16:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	97		70 - 130		03/17/15 16:30	1
Toluene-d8 (Surr)	95		70 - 130		03/17/15 16:30	1
4-Bromofluorobenzene (Surr)	88		70 - 130		03/17/15 16:30	1

Lab Sample ID: LCS 550-58715/4
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	18.5		ug/L		74	38 - 150
Benzene	25.0	26.6		ug/L		106	70 - 130
Bromobenzene	25.0	26.3		ug/L		105	70 - 130
Chlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Dichlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Bromoform	25.0	24.7		ug/L		99	69 - 129
Bromomethane	25.0	28.6		ug/L		114	57 - 138
2-Butanone (MEK)	25.0	31.5		ug/L		126	53 - 150
n-Butylbenzene	25.0	27.1		ug/L		108	70 - 130
sec-Butylbenzene	25.0	26.8		ug/L		107	70 - 130
Carbon disulfide	25.0	29.3		ug/L		117	64 - 145
Carbon tetrachloride	25.0	28.2		ug/L		113	70 - 143
Chlorobenzene	25.0	28.4		ug/L		114	70 - 130
Chloroethane	25.0	27.8		ug/L		111	66 - 131
Chloroform	25.0	27.7		ug/L		111	70 - 130
Chloromethane	25.0	27.0		ug/L		108	56 - 129
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130
4-Chlorotoluene	25.0	28.5		ug/L		114	70 - 130
Chlorodibromomethane	25.0	28.4		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.1		ug/L		105	63 - 146
Ethylene Dibromide	25.0	28.2		ug/L		113	70 - 130
Dibromomethane	25.0	23.5		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144
1,1-Dichloroethane	25.0	28.3		ug/L		113	70 - 130
1,2-Dichloroethane	25.0	25.7		ug/L		103	66 - 139
1,1-Dichloroethene	25.0	27.8		ug/L		111	63 - 131
cis-1,2-Dichloroethene	25.0	29.4		ug/L		117	70 - 130
trans-1,2-Dichloroethene	25.0	29.1		ug/L		116	69 - 127
1,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 130
1,3-Dichloropropane	25.0	28.2		ug/L		113	70 - 130

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

Lab Sample ID: LCS 550-58715/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	31.1		ug/L		125	69 - 139
1,1-Dichloropropene	25.0	27.0		ug/L		108	70 - 130
cis-1,3-Dichloropropene	25.0	28.9		ug/L		116	70 - 130
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
Ethylbenzene	25.0	28.4		ug/L		114	70 - 130
Hexachlorobutadiene	25.0	22.9		ug/L		92	76 - 145
2-Hexanone	25.0	31.8		ug/L		127	55 - 150
Iodomethane	25.0	28.9		ug/L		115	70 - 130
Isopropylbenzene	25.0	27.3		ug/L		109	88 - 141
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130
Methylene Chloride	25.0	27.9		ug/L		112	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142
Methyl tert-butyl ether	25.0	27.1		ug/L		109	70 - 130
Naphthalene	25.0	26.3		ug/L		105	78 - 143
N-Propylbenzene	25.0	27.5		ug/L		110	70 - 130
Styrene	25.0	26.7		ug/L		107	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.3		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.2		ug/L		113	70 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Toluene	25.0	25.7		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 139
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	80 - 137
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	71 - 131
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130
Trichloroethene	25.0	26.5		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	29.0		ug/L		116	69 - 150
1,2,3-Trichloropropane	25.0	26.2		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	25.0	26.3		ug/L		105	70 - 130
1,3,5-Trimethylbenzene	25.0	27.2		ug/L		109	70 - 130
Vinyl acetate	25.0	26.7		ug/L		107	67 - 148
Vinyl chloride	25.0	27.7		ug/L		111	65 - 137
Xylenes, Total	50.0	56.3		ug/L		113	70 - 130
Butadiene	25.0	29.3		ug/L		117	12 - 150
Hexane	25.0	27.3		ug/L		109	54 - 132
m-Xylene & p-Xylene	25.0	27.9		ug/L		111	70 - 130
o-Xylene	25.0	28.4		ug/L		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*81*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: LCSD 550-58715/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	20.9		ug/L		84	38 - 150	12	35

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

Lab Sample ID: LCSD 550-58715/5
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	26.3		ug/L		105	70 - 130	1	20
Bromobenzene	25.0	26.7		ug/L		107	70 - 130	1	20
Chlorobromomethane	25.0	25.0		ug/L		100	70 - 130	4	20
Dichlorobromomethane	25.0	26.8		ug/L		107	70 - 130	3	20
Bromoform	25.0	24.7		ug/L		99	69 - 129	0	20
Bromomethane	25.0	29.3		ug/L		117	57 - 138	3	20
2-Butanone (MEK)	25.0	31.1		ug/L		124	53 - 150	1	35
n-Butylbenzene	25.0	25.0		ug/L		100	70 - 130	8	20
sec-Butylbenzene	25.0	25.9		ug/L		103	70 - 130	4	20
Carbon disulfide	25.0	30.4		ug/L		122	64 - 145	4	33
Carbon tetrachloride	25.0	27.4		ug/L		109	70 - 143	3	20
Chlorobenzene	25.0	26.4		ug/L		106	70 - 130	7	20
Chloroethane	25.0	27.6		ug/L		110	66 - 131	1	20
Chloroform	25.0	28.4		ug/L		114	70 - 130	3	20
Chloromethane	25.0	27.3		ug/L		109	56 - 129	1	20
2-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	3	20
4-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	7	20
Chlorodibromomethane	25.0	24.5		ug/L		98	70 - 130	15	20
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	63 - 146	3	22
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130	7	20
Dibromomethane	25.0	24.4		ug/L		98	70 - 130	4	20
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	3	20
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	4	20
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	3	20
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144	0	23
1,1-Dichloroethane	25.0	30.1		ug/L		121	70 - 130	6	20
1,2-Dichloroethane	25.0	27.2		ug/L		109	66 - 139	6	20
1,1-Dichloroethene	25.0	28.7		ug/L		115	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	28.7		ug/L		115	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	30.0		ug/L		120	69 - 127	3	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	3	20
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	10	20
2,2-Dichloropropane	25.0	32.4		ug/L		130	69 - 139	4	20
1,1-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130	15	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 130	2	20
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130	14	20
Hexachlorobutadiene	25.0	22.3		ug/L		89	76 - 145	3	20
2-Hexanone	25.0	21.3	R6	ug/L		85	55 - 150	39	35
Iodomethane	25.0	30.3		ug/L		121	70 - 130	5	20
Isopropylbenzene	25.0	25.7		ug/L		103	88 - 141	6	20
4-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 130	3	20
Methylene Chloride	25.0	28.4		ug/L		114	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142	0	25
Methyl tert-butyl ether	25.0	28.9		ug/L		116	70 - 130	6	20
Naphthalene	25.0	26.1		ug/L		104	78 - 143	1	20
N-Propylbenzene	25.0	26.7		ug/L		107	70 - 130	3	20
Styrene	25.0	23.3		ug/L		93	70 - 130	13	20

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

Lab Sample ID: LCSD 550-58715/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	14	20
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	70 - 130	1	20
Tetrachloroethene	25.0	25.8		ug/L		103	70 - 130	7	20
Toluene	25.0	26.3		ug/L		105	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	21.6		ug/L		87	79 - 139	15	20
1,2,4-Trichlorobenzene	25.0	23.1		ug/L		93	80 - 137	11	20
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	71 - 131	7	20
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130	0	20
Trichloroethene	25.0	27.2		ug/L		109	70 - 130	3	20
Trichlorofluoromethane	25.0	28.4		ug/L		114	69 - 150	2	22
1,2,3-Trichloropropane	25.0	23.4		ug/L		94	70 - 130	11	20
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		105	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 130	2	20
Vinyl acetate	25.0	28.7		ug/L		115	67 - 148	7	22
Vinyl chloride	25.0	28.1		ug/L		112	65 - 137	1	20
Xylenes, Total	50.0	49.4		ug/L		99	70 - 130	13	20
Butadiene	25.0	30.8		ug/L		123	12 - 150	5	35
Hexane	25.0	29.0		ug/L		116	54 - 132	6	28
m-Xylene & p-Xylene	25.0	23.8		ug/L		95	70 - 130	16	20
o-Xylene	25.0	25.6		ug/L		102	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58603/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/14/15 09:58	1
Chloride	ND	E8	2.0	0.29	mg/L			03/14/15 09:58	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/14/15 09:58	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/14/15 09:58	1

Lab Sample ID: LCS 550-58603/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	4.00		mg/L		100	90 - 110
Chloride	20.0	19.1		mg/L		95	90 - 110
Nitrate as N	4.00	4.04		mg/L		101	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-58603/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	4.00		mg/L		100	90 - 110	0	20
Chloride	20.0	19.1		mg/L		95	90 - 110	0	20
Nitrate as N	4.00	4.04		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-41605-1 MS — **Client Sample ID: IRA-26-031315**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.41	E4	4.00	3.99		mg/L		90	80 - 120
Chloride	100	M3	20.0	118	M3	mg/L		66	80 - 120
Nitrate as N	6.2		4.00	9.61		mg/L		86	80 - 120
Sulfate	130	M3	20.0	145	M3	mg/L		67	80 - 120

Lab Sample ID: 550-41605-1 MSD — **Client Sample ID: IRA-26-031315**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.41	E4	4.00	4.04		mg/L		91	80 - 120	1	20
Chloride	100	M3	20.0	118	M3	mg/L		67	80 - 120	0	20
Nitrate as N	6.2		4.00	9.64		mg/L		87	80 - 120	0	20
Sulfate	130	M3	20.0	145	M3	mg/L		68	80 - 120	0	20

Lab Sample ID: MB 550-58979/34 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58979

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/19/15 03:31	1
Chloride	ND	E8	2.0	0.29	mg/L			03/19/15 03:31	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/19/15 03:31	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/19/15 03:31	1

Lab Sample ID: LCS 550-58979/35 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	3.95		mg/L		99	90 - 110
Chloride	20.0	19.9		mg/L		99	90 - 110
Nitrate as N	4.00	4.05		mg/L		101	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-58979/36 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	3.94		mg/L		98	90 - 110	0	20
Chloride	20.0	20.0		mg/L		100	90 - 110	0	20
Nitrate as N	4.00	4.03		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.7		mg/L		104	90 - 110	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58606/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58722 — **Prep Batch: 58606**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/16/15 12:51	03/17/15 11:40	1
Calcium	ND	E8	2.0	0.014	mg/L		03/16/15 12:51	03/17/15 11:40	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 11:40	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/16/15 12:51	03/17/15 11:40	1
Potassium	ND	E8	0.50	0.067	mg/L		03/16/15 12:51	03/17/15 11:40	1
Sodium	ND	E8	0.50	0.15	mg/L		03/16/15 12:51	03/17/15 11:40	1

Lab Sample ID: LCS 550-58606/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58722 — **Prep Batch: 58606**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.998		mg/L		100	85 - 115
Calcium	21.0	21.2		mg/L		101	85 - 115
Chromium	1.00	0.991		mg/L		99	85 - 115
Magnesium	21.0	21.1		mg/L		100	85 - 115
Potassium	20.0	19.4		mg/L		97	85 - 115
Sodium	20.0	19.5		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-58606/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58722 — **Prep Batch: 58606**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.993		mg/L		99	85 - 115	1	20
Calcium	21.0	21.3		mg/L		102	85 - 115	0	20
Chromium	1.00	0.987		mg/L		99	85 - 115	0	20
Magnesium	21.0	21.1		mg/L		100	85 - 115	0	20
Potassium	20.0	19.4		mg/L		97	85 - 115	0	20
Sodium	20.0	19.5		mg/L		97	85 - 115	0	20

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-58948/63
Matrix: Water
Analysis Batch: 58948

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1

Lab Sample ID: LCS 550-58948/62
Matrix: Water
Analysis Batch: 58948

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			250	241		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-58948/76
Matrix: Water
Analysis Batch: 58948

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	247		mg/L		99	90 - 110	3	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

GC/MS VOA

Analysis Batch: 58542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-3	Baker-031315	Total/NA	Water	8260B	
550-41605-3 MS	Baker-031315	Total/NA	Water	8260B	
550-41605-3 MSD	Baker-031315	Total/NA	Water	8260B	
LCS 550-58542/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58542/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58542/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 58715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	8260B	
550-41605-2	IRA-11-210-031315	Total/NA	Water	8260B	
550-41605-3	Baker-031315	Total/NA	Water	8260B	
550-41605-4	TB	Total/NA	Water	8260B	
LCS 550-58715/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58715/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58715/6	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	300.0	
550-41605-1 MS	IRA-26-031315	Total/NA	Water	300.0	
550-41605-1 MSD	IRA-26-031315	Total/NA	Water	300.0	
550-41605-2	IRA-11-210-031315	Total/NA	Water	300.0	
LCS 550-58603/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58603/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58603/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 58979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-2	IRA-11-210-031315	Total/NA	Water	300.0	
LCS 550-58979/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58979/36	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58979/34	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 58606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	200.7	
550-41605-2	IRA-11-210-031315	Total/NA	Water	200.7	
550-41605-3	Baker-031315	Total/NA	Water	200.7	
LCS 550-58606/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58606/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58606/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	200.7 Rev 4.4	58606

Metals (Continued)

Analysis Batch: 58722 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-2	IRA-11-210-031315	Total/NA	Water	200.7 Rev 4.4	58606
550-41605-3	Baker-031315	Total/NA	Water	200.7 Rev 4.4	58606
LCS 550-58606/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58606
LCSD 550-58606/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58606
MB 550-58606/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58606

General Chemistry

Analysis Batch: 58948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-2	IRA-11-210-031315	Total/NA	Water	SM 2320B	
LCS 550-58948/62	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-58948/76	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-58948/63	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: IRA-26-031315 — Lab Sample ID: 550-41605-1

Date Collected: 03/13/15 10:40 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 21:48	UT	TAL PHX
Total/NA	Analysis	300.0		1	58603	03/14/15 12:28	KLH	TAL PHX
Total/NA	Prep	200.7			58606	03/16/15 12:51	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58722	03/17/15 12:09	AJC	TAL PHX

Client Sample ID: IRA-11-210-031315 — Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 22:20	UT	TAL PHX
Total/NA	Analysis	300.0		10	58979	03/19/15 18:51	MHH	TAL PHX
Total/NA	Analysis	300.0		1	58603	03/14/15 13:52	KLH	TAL PHX
Total/NA	Prep	200.7			58606	03/16/15 12:51	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58722	03/17/15 12:12	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58948	03/19/15 03:20	CDC	TAL PHX

Client Sample ID: Baker-031315 — Lab Sample ID: 550-41605-3

Date Collected: 03/13/15 14:10 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58542	03/15/15 03:05	UT	TAL PHX
Total/NA	Analysis	8260B		1	58715	03/17/15 22:52	UT	TAL PHX
Total/NA	Prep	200.7			58606	03/16/15 12:51	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58722	03/17/15 12:15	AJC	TAL PHX

Client Sample ID: TB — Lab Sample ID: 550-41605-4

Date Collected: 03/13/15 14:11 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 18:38	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

550-41605

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 1

3/24/2015

Client Name/Address: AMEC 4600 e washington Phoenix AZ 85034

Project/PO Number: 1420142030.5.3 Miracle Mile WQARF

Project Manager: Allang Gu

Phone Number: 602-733-6000

Sampler: Sargent / Combs

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260 LL	300.0 Nitrate	200.7 Total Chromium	2320B + 300.0 alkalinity (Cl, SO4, NO3, Bromide, Alkalinity)	200.7 metals (K, Na, Ca, Mg, Boron, Total Chromium)					Special Instructions
IRA-26-031315	Aq	40ml 250ml	5	3/13/15	1040	HCl HNO3	X	X	X							ADEQ# 61603 -01
IRA-11-210-031315		40ml 250ml 500ml	5		1248	HCl HNO3	X			X	X					ADEQ# 61486 -02
BAKER-031315		40ml 250ml	4		1410	HNO3 HCl	X		X							24 hr Rush -03
TB		40ml	1		1411	HCl	X									-04

550-41605 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
	3/13/14 1430		3-13-15 1430
Relinquished By:	Date/Time:	Received By:	Date/Time:
	3-13-15 1530		
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
			3-14-15 0915

Turnaround Time: (Check)
Same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ____ on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2.1

Fed Ex Sat

0.9°C

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41605-1
SDG Number: 1420142030.5.3

Login Number: 41605
List Number: 1
Creator: Gaska, Kristinena

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41657-1
TestAmerica Sample Delivery Group: 1420142030.5.3
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/24/2015 4:46:41 PM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
V1	CCV recovery was above method acceptance limits. The analyte was not detected in the sample.
N1	See case narrative.
S6	Surrogate recovery was below laboratory acceptance limits and method acceptance limits. Reextraction and/or reanalysis confirms low recovery caused by matrix effect.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Job ID: 550-41657-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41657-1

Comments
No additional comments.

Receipt
The samples were received on 3/16/2015 2:11 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.8º C and 3.2º C.

GC/MS VOA
Method(s) 8260B: The laboratory control spiked duplicate (LCSD) for batch 59196 recovered outside control limits for Hexachlorobutadiene. Hexachlorobutadiene was biased low in the LCSD, but acceptable in all other QC; continuing calibration verification (CCVIS), laboratory control spike duplicate (LCSD), matrix spike (MS) and matrix spike duplicate (MSD). All samples were non-detect; therefore the data has been reported. The LCSD and samples will be flagged with an N1 qualifier.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41657-1	VillaCapri-031615	Water	03/16/15 10:15	03/16/15 14:11
550-41657-2	IRA-9-031615	Water	03/16/15 13:45	03/16/15 14:11
550-41657-3	TB	Water	03/16/15 13:46	03/16/15 14:11

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Client Sample ID: VillaCapri-031615 — Lab Sample ID: 550-41657-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Bromoform	1.6		1.0	0.37	ug/L	1		8260B	Total/NA
Chlorodibromomethane	0.26	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Nitrate as N	6.5		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.00070	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-9-031615 — Lab Sample ID: 550-41657-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.16	E4	0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	2.4		0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.29	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.84		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	3.1		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	7.5		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.071		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41657-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Client Sample ID: VillaCapri-031615
Date Collected: 03/16/15 10:15
Date Received: 03/16/15 14:11

Lab Sample ID: 550-41657-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/23/15 21:27	1
Benzene	ND	E8	0.50	0.12	ug/L			03/23/15 21:27	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/23/15 21:27	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/23/15 21:27	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/23/15 21:27	1
Bromoform	**1.6**		1.0	0.37	ug/L			03/23/15 21:27	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/23/15 21:27	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/23/15 21:27	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 21:27	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/23/15 21:27	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/23/15 21:27	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/23/15 21:27	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/23/15 21:27	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/23/15 21:27	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/23/15 21:27	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/23/15 21:27	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/23/15 21:27	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/23/15 21:27	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/23/15 21:27	1
Chlorodibromomethane	**0.26**	**E4**	0.50	0.22	ug/L			03/23/15 21:27	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/23/15 21:27	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/23/15 21:27	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/23/15 21:27	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/23/15 21:27	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/23/15 21:27	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/23/15 21:27	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/23/15 21:27	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/23/15 21:27	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/23/15 21:27	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/23/15 21:27	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/23/15 21:27	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/23/15 21:27	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/23/15 21:27	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/23/15 21:27	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/23/15 21:27	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/23/15 21:27	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/23/15 21:27	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/23/15 21:27	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/23/15 21:27	1
Hexachlorobutadiene	ND	E8 N1	1.0	0.28	ug/L			03/23/15 21:27	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/23/15 21:27	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/23/15 21:27	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/23/15 21:27	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/23/15 21:27	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/23/15 21:27	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/23/15 21:27	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/23/15 21:27	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/23/15 21:27	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 21:27	1

Client Sample ID: VillaCapri-031615

Lab Sample ID: 550-41657-1

Date Collected: 03/16/15 10:15
Matrix: Water
Date Received: 03/16/15 14:11

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/23/15 21:27	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/23/15 21:27	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/23/15 21:27	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/23/15 21:27	1
Toluene	ND	E8	0.50	0.28	ug/L			03/23/15 21:27	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/23/15 21:27	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/23/15 21:27	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/23/15 21:27	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/23/15 21:27	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/23/15 21:27	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/23/15 21:27	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/23/15 21:27	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/23/15 21:27	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 21:27	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/23/15 21:27	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/23/15 21:27	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/23/15 21:27	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/23/15 21:27	1
Hexane	ND	E8	2.0	1.6	ug/L			03/23/15 21:27	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/23/15 21:27	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/23/15 21:27*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/23/15 21:27*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/23/15 21:27*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/23/15 21:27*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/23/15 21:27*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*03/23/15 21:27*	*1*
Toluene-d8 (Surr)	*7*	*S6*	*70 - 130*		*03/23/15 21:27*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*03/23/15 21:27*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**6.5**		0.10	0.051	mg/L			03/17/15 21:56	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.00070**	**E4**	0.010	0.00050	mg/L		03/17/15 16:08	03/19/15 00:17	1

Client Sample ID: IRA-9-031615

Lab Sample ID: 550-41657-2

Date Collected: 03/16/15 13:45
Matrix: Water
Date Received: 03/16/15 14:11

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/20/15 23:32	1
Benzene	ND	E8	0.50	0.12	ug/L			03/20/15 23:32	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 23:32	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/20/15 23:32	1

Client Sample ID: IRA-9-031615

Lab Sample ID: 550-41657-2

Date Collected: 03/16/15 13:45
Matrix: Water
Date Received: 03/16/15 14:11

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/20/15 23:32	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/20/15 23:32	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/20/15 23:32	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/20/15 23:32	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 23:32	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/20/15 23:32	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 23:32	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/20/15 23:32	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/20/15 23:32	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 23:32	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/20/15 23:32	1
Chloroform	**0.16**	**E4**	0.50	0.13	ug/L			03/20/15 23:32	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/20/15 23:32	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/20/15 23:32	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/20/15 23:32	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/20/15 23:32	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/20/15 23:32	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/20/15 23:32	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/20/15 23:32	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/20/15 23:32	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 23:32	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 23:32	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 23:32	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/20/15 23:32	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 23:32	1
1,1-Dichloroethene	**2.4**		0.50	0.23	ug/L			03/20/15 23:32	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/20/15 23:32	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/20/15 23:32	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 23:32	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 23:32	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/20/15 23:32	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/20/15 23:32	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/20/15 23:32	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/20/15 23:32	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/20/15 23:32	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/20/15 23:32	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/20/15 23:32	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/20/15 23:32	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/20/15 23:32	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/20/15 23:32	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/20/15 23:32	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/20/15 23:32	1
Methyl tert-butyl ether	**0.29**	**E4**	0.50	0.22	ug/L			03/20/15 23:32	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/20/15 23:32	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 23:32	1
Styrene	ND	E8	0.50	0.17	ug/L			03/20/15 23:32	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/20/15 23:32	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/20/15 23:32	1
Tetrachloroethene	**0.84**		0.50	0.18	ug/L			03/20/15 23:32	1

Client Sample ID: IRA-9-031615

Lab Sample ID: 550-41657-2

Date Collected: 03/16/15 13:45
Matrix: Water
Date Received: 03/16/15 14:11

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/20/15 23:32	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/20/15 23:32	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/20/15 23:32	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/20/15 23:32	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 23:32	1
Trichloroethene	**3.1**		0.50	0.24	ug/L			03/20/15 23:32	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 23:32	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/20/15 23:32	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 23:32	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 23:32	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/20/15 23:32	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/20/15 23:32	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/20/15 23:32	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/20/15 23:32	1
Hexane	ND	E8	2.0	1.6	ug/L			03/20/15 23:32	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/20/15 23:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/20/15 23:32*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/20/15 23:32*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/20/15 23:32*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/20/15 23:32*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/20/15 23:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*03/20/15 23:32*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*03/20/15 23:32*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/20/15 23:32*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**7.5**		0.10	0.051	mg/L			03/17/15 22:52	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.071**		0.010	0.00050	mg/L		03/17/15 16:08	03/19/15 00:21	1

Client Sample ID: TB

Lab Sample ID: 550-41657-3

Date Collected: 03/16/15 13:46
Matrix: Water
Date Received: 03/16/15 14:11

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/20/15 19:48	1
Benzene	ND	E8	0.50	0.12	ug/L			03/20/15 19:48	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 19:48	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/20/15 19:48	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/20/15 19:48	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/20/15 19:48	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/20/15 19:48	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/20/15 19:48	1

Client Sample ID: TB

Lab Sample ID: 550-41657-3

Date Collected: 03/16/15 13:46

Matrix: Water

Date Received: 03/16/15 14:11

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:48	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/20/15 19:48	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 19:48	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/20/15 19:48	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/20/15 19:48	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 19:48	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/20/15 19:48	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/20/15 19:48	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/20/15 19:48	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/20/15 19:48	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/20/15 19:48	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/20/15 19:48	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/20/15 19:48	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/20/15 19:48	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/20/15 19:48	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/20/15 19:48	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 19:48	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 19:48	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:48	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/20/15 19:48	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 19:48	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/20/15 19:48	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/20/15 19:48	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/20/15 19:48	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 19:48	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 19:48	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/20/15 19:48	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/20/15 19:48	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/20/15 19:48	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/20/15 19:48	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/20/15 19:48	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/20/15 19:48	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/20/15 19:48	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/20/15 19:48	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/20/15 19:48	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/20/15 19:48	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/20/15 19:48	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/20/15 19:48	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/20/15 19:48	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/20/15 19:48	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:48	1
Styrene	ND	E8	0.50	0.17	ug/L			03/20/15 19:48	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/20/15 19:48	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/20/15 19:48	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/20/15 19:48	1
Toluene	ND	E8	0.50	0.28	ug/L			03/20/15 19:48	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/20/15 19:48	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/20/15 19:48	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:48	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Client Sample ID: TB
Date Collected: 03/16/15 13:46
Date Received: 03/16/15 14:11

Lab Sample ID: 550-41657-3
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 19:48	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/20/15 19:48	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:48	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/20/15 19:48	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 19:48	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:48	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/20/15 19:48	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/20/15 19:48	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/20/15 19:48	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/20/15 19:48	1
Hexane	ND	E8	2.0	1.6	ug/L			03/20/15 19:48	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/20/15 19:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/20/15 19:48*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/20/15 19:48*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/20/15 19:48*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/20/15 19:48*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/20/15 19:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*03/20/15 19:48*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*03/20/15 19:48*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/20/15 19:48*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41486-C-1 MS	Matrix Spike	97	96	91
550-41486-C-1 MSD	Matrix Spike Duplicate	96	96	94
550-41657-1	VillaCapri-031615	103	7 S6	92
550-41657-2	IRA-9-031615	99	90	91
550-41657-3	TB	96	98	91
550-41754-A-4 MS	Matrix Spike	101	100	96
550-41754-A-4 MSD	Matrix Spike Duplicate	109	100	99
LCS 550-59140/3	Lab Control Sample	100	97	96
LCS 550-59196/4	Lab Control Sample	104	107	99
LCSD 550-59140/4	Lab Control Sample Dup	99	91	97
LCSD 550-59196/5	Lab Control Sample Dup	103	99	95
MB 550-59140/6	Method Blank	100	96	93
MB 550-59196/7	Method Blank	103	96	89

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-59140/6
Matrix: Water
Analysis Batch: 59140

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/20/15 19:16	1
Benzene	ND	E8	0.50	0.12	ug/L			03/20/15 19:16	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/20/15 19:16	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/20/15 19:16	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/20/15 19:16	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/20/15 19:16	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 19:16	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/20/15 19:16	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/20/15 19:16	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/20/15 19:16	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/20/15 19:16	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/20/15 19:16	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/20/15 19:16	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/20/15 19:16	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/20/15 19:16	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/20/15 19:16	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/20/15 19:16	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 19:16	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/20/15 19:16	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/20/15 19:16	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/20/15 19:16	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/20/15 19:16	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/20/15 19:16	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/20/15 19:16	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/20/15 19:16	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/20/15 19:16	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/20/15 19:16	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/20/15 19:16	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/20/15 19:16	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/20/15 19:16	1
Naphthalene	0.921	E4	2.5	0.51	ug/L			03/20/15 19:16	1

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

Lab Sample ID: MB 550-59140/6
Matrix: Water
Analysis Batch: 59140

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
Styrene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/20/15 19:16	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/20/15 19:16	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/20/15 19:16	1
Toluene	0.364	E4	0.50	0.28	ug/L			03/20/15 19:16	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/20/15 19:16	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/20/15 19:16	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 19:16	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/20/15 19:16	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/20/15 19:16	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 19:16	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/20/15 19:16	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/20/15 19:16	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/20/15 19:16	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/20/15 19:16	1
Hexane	ND	E8	2.0	1.6	ug/L			03/20/15 19:16	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/20/15 19:16	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/20/15 19:16*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/20/15 19:16*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/20/15 19:16*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/20/15 19:16*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/20/15 19:16*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*03/20/15 19:16*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/20/15 19:16*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*03/20/15 19:16*	*1*

Lab Sample ID: LCS 550-59140/3
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	28.8		ug/L		115	38 - 150
Benzene	25.0	24.0		ug/L		96	70 - 130
Bromobenzene	25.0	26.9		ug/L		107	70 - 130
Chlorobromomethane	25.0	24.8		ug/L		99	70 - 130
Dichlorobromomethane	25.0	24.2		ug/L		97	70 - 130
Bromoform	25.0	23.4		ug/L		94	69 - 129
Bromomethane	25.0	27.1		ug/L		108	57 - 138
2-Butanone (MEK)	25.0	35.8		ug/L		143	53 - 150

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

Lab Sample ID: LCS 550-59140/3
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	23.4		ug/L		93	70 - 130
sec-Butylbenzene	25.0	25.7		ug/L		103	70 - 130
Carbon disulfide	25.0	24.6		ug/L		98	64 - 145
Carbon tetrachloride	25.0	24.6		ug/L		98	70 - 143
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130
Chloroethane	25.0	24.3		ug/L		97	66 - 131
Chloroform	25.0	25.3		ug/L		101	70 - 130
Chloromethane	25.0	22.3		ug/L		89	56 - 129
2-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130
Chlorodibromomethane	25.0	23.3		ug/L		93	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	63 - 146
Ethylene Dibromide	25.0	24.8		ug/L		99	70 - 130
Dibromomethane	25.0	21.9		ug/L		88	70 - 130
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.9		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	20.4		ug/L		82	46 - 144
1,1-Dichloroethane	25.0	24.4		ug/L		97	70 - 130
1,2-Dichloroethane	25.0	24.5		ug/L		98	66 - 139
1,1-Dichloroethene	25.0	25.2		ug/L		101	63 - 131
cis-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	69 - 127
1,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	24.3		ug/L		97	70 - 130
2,2-Dichloropropane	25.0	27.2		ug/L		109	69 - 139
1,1-Dichloropropene	25.0	24.2		ug/L		97	70 - 130
cis-1,3-Dichloropropene	25.0	22.9		ug/L		92	70 - 130
trans-1,3-Dichloropropene	25.0	22.0		ug/L		88	70 - 130
Ethylbenzene	25.0	24.8		ug/L		99	70 - 130
Hexachlorobutadiene	25.0	23.0		ug/L		92	76 - 145
2-Hexanone	25.0	26.8		ug/L		107	55 - 150
Iodomethane	25.0	26.1		ug/L		104	70 - 130
Isopropylbenzene	25.0	27.3		ug/L		109	88 - 141
4-Isopropyltoluene	25.0	23.0		ug/L		92	70 - 130
Methylene Chloride	25.0	24.5		ug/L		98	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	22.8		ug/L		91	64 - 142
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130
Naphthalene	25.0	23.8		ug/L		95	78 - 143
N-Propylbenzene	25.0	27.0		ug/L		108	70 - 130
Styrene	25.0	23.2		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.0		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	70 - 130
Tetrachloroethene	25.0	24.2		ug/L		97	70 - 130
Toluene	25.0	23.4		ug/L		94	70 - 130
1,2,3-Trichlorobenzene	25.0	22.3		ug/L		89	79 - 139
1,2,4-Trichlorobenzene	25.0	22.6		ug/L		90	80 - 137
1,1,1-Trichloroethane	25.0	26.3		ug/L		105	71 - 131

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

Lab Sample ID: LCS 550-59140/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	22.9		ug/L		92	70 - 130
Trichloroethene	25.0	24.7		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	23.6		ug/L		94	69 - 150
1,2,3-Trichloropropane	25.0	24.8		ug/L		99	70 - 130
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 130
Vinyl acetate	25.0	22.4		ug/L		90	67 - 148
Vinyl chloride	25.0	23.3		ug/L		93	65 - 137
Xylenes, Total	50.0	45.8		ug/L		92	70 - 130
Butadiene	25.0	25.1		ug/L		100	12 - 150
Hexane	25.0	26.9		ug/L		108	54 - 132
m-Xylene & p-Xylene	25.0	21.5		ug/L		86	70 - 130
o-Xylene	25.0	24.3		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 550-59140/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59140

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	30.3		ug/L		121	38 - 150	5	35
Benzene	25.0	22.5		ug/L		90	70 - 130	6	20
Bromobenzene	25.0	25.4		ug/L		102	70 - 130	6	20
Chlorobromomethane	25.0	22.9		ug/L		92	70 - 130	8	20
Dichlorobromomethane	25.0	23.4		ug/L		93	70 - 130	4	20
Bromoform	25.0	21.1		ug/L		85	69 - 129	10	20
Bromomethane	25.0	25.9		ug/L		104	57 - 138	4	20
2-Butanone (MEK)	25.0	34.3		ug/L		137	53 - 150	4	35
n-Butylbenzene	25.0	22.3		ug/L		89	70 - 130	5	20
sec-Butylbenzene	25.0	24.3		ug/L		97	70 - 130	5	20
Carbon disulfide	25.0	25.4		ug/L		102	64 - 145	3	33
Carbon tetrachloride	25.0	23.7		ug/L		95	70 - 143	4	20
Chlorobenzene	25.0	24.2		ug/L		97	70 - 130	4	20
Chloroethane	25.0	21.3		ug/L		85	66 - 131	13	20
Chloroform	25.0	25.6		ug/L		102	70 - 130	1	20
Chloromethane	25.0	22.7		ug/L		91	56 - 129	2	20
2-Chlorotoluene	25.0	24.8		ug/L		99	70 - 130	6	20
4-Chlorotoluene	25.0	24.9		ug/L		100	70 - 130	3	20
Chlorodibromomethane	25.0	23.4		ug/L		94	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	22.9		ug/L		92	63 - 146	5	22
Ethylene Dibromide	25.0	23.4		ug/L		94	70 - 130	6	20
Dibromomethane	25.0	20.7		ug/L		83	70 - 130	6	20
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	7	20
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	6	20

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

Lab Sample ID: LCSD 550-59140/4
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130	11	20
Dichlorodifluoromethane	25.0	19.8		ug/L		79	46 - 144	3	23
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130	5	20
1,2-Dichloroethane	25.0	24.2		ug/L		97	66 - 139	2	20
1,1-Dichloroethene	25.0	25.9		ug/L		104	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	26.6		ug/L		107	69 - 127	3	20
1,2-Dichloropropane	25.0	23.2		ug/L		93	70 - 130	8	20
1,3-Dichloropropane	25.0	23.5		ug/L		94	70 - 130	3	20
2,2-Dichloropropane	25.0	28.9		ug/L		116	69 - 139	6	20
1,1-Dichloropropene	25.0	23.9		ug/L		95	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	23.1		ug/L		92	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	21.7		ug/L		87	70 - 130	1	20
Ethylbenzene	25.0	22.7		ug/L		91	70 - 130	9	20
Hexachlorobutadiene	25.0	20.2		ug/L		81	76 - 145	13	20
2-Hexanone	25.0	27.3		ug/L		109	55 - 150	2	35
Iodomethane	25.0	26.2		ug/L		105	70 - 130	1	20
Isopropylbenzene	25.0	25.4		ug/L		101	88 - 141	8	20
4-Isopropyltoluene	25.0	23.1		ug/L		92	70 - 130	0	20
Methylene Chloride	25.0	25.3		ug/L		101	63 - 128	3	21
4-Methyl-2-pentanone (MIBK)	25.0	21.1		ug/L		85	64 - 142	8	25
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130	0	20
Naphthalene	25.0	22.4		ug/L		90	78 - 143	6	20
N-Propylbenzene	25.0	24.5		ug/L		98	70 - 130	10	20
Styrene	25.0	21.5		ug/L		86	70 - 130	8	20
1,1,1,2-Tetrachloroethane	25.0	22.8		ug/L		91	70 - 130	5	20
1,1,2,2-Tetrachloroethane	25.0	24.1		ug/L		96	70 - 130	12	20
Tetrachloroethene	25.0	25.1		ug/L		101	70 - 130	4	20
Toluene	25.0	21.9		ug/L		87	70 - 130	7	20
1,2,3-Trichlorobenzene	25.0	20.9		ug/L		84	79 - 139	6	20
1,2,4-Trichlorobenzene	25.0	21.7		ug/L		87	80 - 137	4	20
1,1,1-Trichloroethane	25.0	25.9		ug/L		103	71 - 131	2	20
1,1,2-Trichloroethane	25.0	22.6		ug/L		90	70 - 130	1	20
Trichloroethene	25.0	24.5		ug/L		98	70 - 130	1	20
Trichlorofluoromethane	25.0	25.3		ug/L		101	69 - 150	7	22
1,2,3-Trichloropropane	25.0	22.1		ug/L		88	70 - 130	12	20
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 130	1	20
Vinyl acetate	25.0	21.3		ug/L		85	67 - 148	5	22
Vinyl chloride	25.0	23.4		ug/L		94	65 - 137	0	20
Xylenes, Total	50.0	44.9		ug/L		90	70 - 130	2	20
Butadiene	25.0	25.5		ug/L		102	12 - 150	2	35
Hexane	25.0	25.8		ug/L		103	54 - 132	4	28
m-Xylene & p-Xylene	25.0	21.8		ug/L		87	70 - 130	2	20
o-Xylene	25.0	23.1		ug/L		92	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

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

Lab Sample ID: LCSD 550-59140/4
Matrix: Water
Analysis Batch: 59140

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 550-41486-C-1 MS
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	8.74	E4	ug/L		35	29 - 139
Benzene	ND	E8	25.0	23.4		ug/L		94	68 - 131
Bromobenzene	ND	E8	25.0	25.6		ug/L		103	70 - 130
Chlorobromomethane	ND	E8	25.0	22.4		ug/L		89	64 - 132
Dichlorobromomethane	ND	E8	25.0	23.2		ug/L		93	63 - 138
Bromoform	ND	E8	25.0	22.4		ug/L		90	60 - 128
Bromomethane	ND	E8	25.0	23.0		ug/L		92	47 - 144
2-Butanone (MEK)	ND	E8	25.0	20.6		ug/L		82	31 - 143
n-Butylbenzene	ND	E8	25.0	21.5		ug/L		86	69 - 140
sec-Butylbenzene	ND	E8	25.0	24.7		ug/L		99	72 - 136
Carbon disulfide	ND	E8	25.0	24.6		ug/L		98	45 - 150
Carbon tetrachloride	ND	E8	25.0	24.5		ug/L		98	65 - 147
Chlorobenzene	ND	E8	25.0	25.0		ug/L		100	70 - 130
Chloroethane	ND	E8	25.0	22.0		ug/L		88	57 - 139
Chloroform	0.29	E4	25.0	24.9		ug/L		98	63 - 131
Chloromethane	ND	E8	25.0	21.1		ug/L		84	47 - 134
2-Chlorotoluene	ND	E8	25.0	24.3		ug/L		97	71 - 131
4-Chlorotoluene	ND	E8	25.0	24.4		ug/L		98	70 - 130
Chlorodibromomethane	ND	E8	25.0	24.6		ug/L		98	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	22.8		ug/L		91	53 - 145
Ethylene Dibromide	ND	E8	25.0	25.4		ug/L		102	70 - 130
Dibromomethane	ND	E8	25.0	21.7		ug/L		87	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	23.8		ug/L		95	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	22.7		ug/L		91	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	23.2		ug/L		93	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	21.3		ug/L		85	40 - 148
1,1-Dichloroethane	ND	E8	25.0	23.6		ug/L		94	62 - 130
1,2-Dichloroethane	ND	E8	25.0	23.6		ug/L		94	54 - 147
1,1-Dichloroethene	ND	E8	25.0	25.9		ug/L		104	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	24.0		ug/L		96	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.5		ug/L		102	62 - 131
1,2-Dichloropropane	ND	E8	25.0	22.4		ug/L		90	68 - 126
1,3-Dichloropropane	ND	E8	25.0	23.5		ug/L		94	68 - 129
2,2-Dichloropropane	ND	E8	25.0	22.5		ug/L		90	60 - 146
1,1-Dichloropropene	ND	E8	25.0	25.4		ug/L		102	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	24.4		ug/L		98	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	21.2		ug/L		85	58 - 136
Ethylbenzene	ND	E8	25.0	23.8		ug/L		95	74 - 134
Hexachlorobutadiene	ND	E8	25.0	21.4		ug/L		86	69 - 150
2-Hexanone	ND	E8	25.0	18.9		ug/L		75	40 - 142

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

Lab Sample ID: 550-41486-C-1 MS
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND	E8	25.0	24.8		ug/L		99	53 - 150
Isopropylbenzene	ND	E8	25.0	25.6		ug/L		102	80 - 146
4-Isopropyltoluene	ND	E8	25.0	22.4		ug/L		90	70 - 133
Methylene Chloride	ND	E8	25.0	24.2		ug/L		97	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	22.8		ug/L		91	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	23.0		ug/L		92	67 - 138
Naphthalene	ND	E8	25.0	21.1		ug/L		85	67 - 146
N-Propylbenzene	ND	E8	25.0	24.7		ug/L		99	74 - 140
Styrene	ND	E8	25.0	21.7		ug/L		87	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	23.5		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	26.3		ug/L		105	63 - 137
Tetrachloroethene	ND	E8	25.0	27.0		ug/L		108	67 - 131
Toluene	ND	E8	25.0	22.2		ug/L		89	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	19.1		ug/L		76	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	20.1		ug/L		80	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	25.5		ug/L		102	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	23.2		ug/L		93	63 - 132
Trichloroethene	ND	E8	25.0	24.4		ug/L		98	66 - 132
Trichlorofluoromethane	ND	E8	25.0	24.9		ug/L		100	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	24.4		ug/L		98	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	23.6		ug/L		95	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	24.4		ug/L		98	66 - 137
Vinyl acetate	ND	E8	25.0	22.3		ug/L		89	47 - 150
Vinyl chloride	ND	E8	25.0	22.3		ug/L		89	55 - 146
Xylenes, Total	ND	E8	50.0	47.0		ug/L		94	68 - 131
Butadiene	ND	E8	25.0	25.1		ug/L		100	10 - 150
Hexane	ND	E8	25.0	25.0		ug/L		100	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	22.9		ug/L		92	58 - 138
o-Xylene	ND	E8	25.0	24.1		ug/L		96	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 550-41486-C-1 MSD
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	7.60	E4	ug/L		30	29 - 139	14	35
Benzene	ND	E8	25.0	22.2		ug/L		89	68 - 131	5	32
Bromobenzene	ND	E8	25.0	25.5		ug/L		102	70 - 130	0	28
Chlorobromomethane	ND	E8	25.0	22.8		ug/L		91	64 - 132	2	35
Dichlorobromomethane	ND	E8	25.0	24.1		ug/L		96	63 - 138	4	31
Bromoform	ND	E8	25.0	23.9		ug/L		95	60 - 128	6	31
Bromomethane	ND	E8	25.0	24.3		ug/L		97	47 - 144	6	35
2-Butanone (MEK)	ND	E8	25.0	22.9		ug/L		91	31 - 143	11	35

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

Lab Sample ID: 550-41486-C-1 MSD
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene	ND	E8	25.0	22.9		ug/L		92	69 - 140	7	32
sec-Butylbenzene	ND	E8	25.0	25.2		ug/L		101	72 - 136	2	33
Carbon disulfide	ND	E8	25.0	23.9		ug/L		95	45 - 150	3	35
Carbon tetrachloride	ND	E8	25.0	25.3		ug/L		101	65 - 147	3	35
Chlorobenzene	ND	E8	25.0	23.9		ug/L		96	70 - 130	4	30
Chloroethane	ND	E8	25.0	23.1		ug/L		92	57 - 139	5	35
Chloroform	0.29	E4	25.0	24.6		ug/L		97	63 - 131	1	33
Chloromethane	ND	E8	25.0	21.7		ug/L		87	47 - 134	3	35
2-Chlorotoluene	ND	E8	25.0	25.2		ug/L		101	71 - 131	4	29
4-Chlorotoluene	ND	E8	25.0	26.0		ug/L		104	70 - 130	6	28
Chlorodibromomethane	ND	E8	25.0	22.7		ug/L		91	65 - 134	8	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	23.4		ug/L		93	53 - 145	2	35
Ethylene Dibromide	ND	E8	25.0	24.1		ug/L		96	70 - 130	5	33
Dibromomethane	ND	E8	25.0	22.2		ug/L		89	66 - 136	2	35
1,2-Dichlorobenzene	ND	E8	25.0	24.5		ug/L		98	70 - 130	3	27
1,3-Dichlorobenzene	ND	E8	25.0	24.2		ug/L		97	70 - 130	6	28
1,4-Dichlorobenzene	ND	E8	25.0	23.8		ug/L		95	70 - 130	2	26
Dichlorodifluoromethane	ND	E8	25.0	21.8		ug/L		87	40 - 148	3	35
1,1-Dichloroethane	ND	E8	25.0	23.1		ug/L		93	62 - 130	2	34
1,2-Dichloroethane	ND	E8	25.0	23.7		ug/L		95	54 - 147	1	35
1,1-Dichloroethene	ND	E8	25.0	24.7		ug/L		99	57 - 137	5	35
cis-1,2-Dichloroethene	ND	E8	25.0	24.7		ug/L		99	65 - 127	3	34
trans-1,2-Dichloroethene	ND	E8	25.0	24.7		ug/L		99	62 - 131	3	35
1,2-Dichloropropane	ND	E8	25.0	23.2		ug/L		93	68 - 126	4	32
1,3-Dichloropropane	ND	E8	25.0	23.5		ug/L		94	68 - 129	0	33
2,2-Dichloropropane	ND	E8	25.0	24.0		ug/L		96	60 - 146	7	35
1,1-Dichloropropene	ND	E8	25.0	24.5		ug/L		98	64 - 134	4	34
cis-1,3-Dichloropropene	ND	E8	25.0	21.6		ug/L		87	63 - 135	12	35
trans-1,3-Dichloropropene	ND	E8	25.0	21.6		ug/L		87	58 - 136	2	35
Ethylbenzene	ND	E8	25.0	22.9		ug/L		92	74 - 134	4	32
Hexachlorobutadiene	ND	E8	25.0	22.9		ug/L		92	69 - 150	7	32
2-Hexanone	ND	E8	25.0	17.5		ug/L		70	40 - 142	7	35
Iodomethane	ND	E8	25.0	24.6		ug/L		98	53 - 150	1	35
Isopropylbenzene	ND	E8	25.0	26.5		ug/L		106	80 - 146	4	32
4-Isopropyltoluene	ND	E8	25.0	23.4		ug/L		94	70 - 133	4	32
Methylene Chloride	ND	E8	25.0	23.4		ug/L		94	55 - 133	3	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	21.4		ug/L		85	52 - 143	6	35
Methyl tert-butyl ether	ND	E8	25.0	24.2		ug/L		97	67 - 138	5	21
Naphthalene	ND	E8	25.0	23.5		ug/L		94	67 - 146	10	29
N-Propylbenzene	ND	E8	25.0	25.3		ug/L		101	74 - 140	2	32
Styrene	ND	E8	25.0	22.9		ug/L		92	43 - 144	5	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	21.4		ug/L		86	70 - 130	9	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.2		ug/L		109	63 - 137	3	32
Tetrachloroethene	ND	E8	25.0	23.6		ug/L		95	67 - 131	13	31
Toluene	ND	E8	25.0	23.4		ug/L		93	65 - 138	5	33
1,2,3-Trichlorobenzene	ND	E8	25.0	21.0		ug/L		84	74 - 139	9	26
1,2,4-Trichlorobenzene	ND	E8	25.0	21.0		ug/L		84	74 - 138	4	26
1,1,1-Trichloroethane	ND	E8	25.0	24.8		ug/L		99	64 - 138	3	35

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

Lab Sample ID: 550-41486-C-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59140

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND	E8	25.0	23.8		ug/L		95	63 - 132	2	35
Trichloroethene	ND	E8	25.0	24.5		ug/L		98	66 - 132	0	29
Trichlorofluoromethane	ND	E8	25.0	26.6		ug/L		107	62 - 150	7	35
1,2,3-Trichloropropane	ND	E8	25.0	25.0		ug/L		100	68 - 130	2	32
1,2,4-Trimethylbenzene	ND	E8	25.0	24.1		ug/L		97	63 - 135	2	31
1,3,5-Trimethylbenzene	ND	E8	25.0	25.5		ug/L		102	66 - 137	4	30
Vinyl acetate	ND	E8	25.0	21.5		ug/L		86	47 - 150	4	35
Vinyl chloride	ND	E8	25.0	23.5		ug/L		94	55 - 146	5	35
Xylenes, Total	ND	E8	50.0	45.1		ug/L		90	68 - 131	4	31
Butadiene	ND	E8	25.0	25.6		ug/L		102	10 - 150	2	35
Hexane	ND	E8	25.0	23.6		ug/L		94	46 - 139	6	35
m-Xylene & p-Xylene	ND	E8	25.0	21.6		ug/L		86	58 - 138	6	29
o-Xylene	ND	E8	25.0	23.5		ug/L		94	66 - 137	2	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: MB 550-59196/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/23/15 12:55	1
Benzene	ND	E8	0.50	0.12	ug/L			03/23/15 12:55	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/23/15 12:55	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/23/15 12:55	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/23/15 12:55	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/23/15 12:55	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/23/15 12:55	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/23/15 12:55	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 12:55	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/23/15 12:55	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/23/15 12:55	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/23/15 12:55	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/23/15 12:55	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/23/15 12:55	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/23/15 12:55	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/23/15 12:55	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/23/15 12:55	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/23/15 12:55	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/23/15 12:55	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/23/15 12:55	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/23/15 12:55	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/23/15 12:55	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/23/15 12:55	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/23/15 12:55	1

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

Lab Sample ID: MB 550-59196/7
Matrix: Water
Analysis Batch: 59196

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/23/15 12:55	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/23/15 12:55	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/23/15 12:55	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/23/15 12:55	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/23/15 12:55	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/23/15 12:55	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/23/15 12:55	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/23/15 12:55	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/23/15 12:55	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/23/15 12:55	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/23/15 12:55	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/23/15 12:55	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/23/15 12:55	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/23/15 12:55	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/23/15 12:55	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/23/15 12:55	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/23/15 12:55	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/23/15 12:55	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/23/15 12:55	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/23/15 12:55	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/23/15 12:55	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/23/15 12:55	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/23/15 12:55	1
Naphthalene	0.574	E4	2.5	0.51	ug/L			03/23/15 12:55	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 12:55	1
Styrene	ND	E8	0.50	0.17	ug/L			03/23/15 12:55	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/23/15 12:55	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/23/15 12:55	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/23/15 12:55	1
Toluene	ND	E8	0.50	0.28	ug/L			03/23/15 12:55	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/23/15 12:55	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/23/15 12:55	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/23/15 12:55	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/23/15 12:55	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/23/15 12:55	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/23/15 12:55	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/23/15 12:55	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/23/15 12:55	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 12:55	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/23/15 12:55	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/23/15 12:55	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/23/15 12:55	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/23/15 12:55	1
Hexane	ND	E8	2.0	1.6	ug/L			03/23/15 12:55	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/23/15 12:55	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/23/15 12:55*	*1*

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

Lab Sample ID: MB 550-59196/7
Matrix: Water
Analysis Batch: 59196

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

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Dicyclopentadiene TIC	ND	E8 T4	ug/L			77-73-6		03/23/15 12:55	1
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/23/15 12:55	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/23/15 12:55	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/23/15 12:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	103		70 - 130		03/23/15 12:55	1
Toluene-d8 (Surr)	96		70 - 130		03/23/15 12:55	1
4-Bromofluorobenzene (Surr)	89		70 - 130		03/23/15 12:55	1

Lab Sample ID: LCS 550-59196/4
Matrix: Water
Analysis Batch: 59196

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	23.5		ug/L		94	38 - 150
Benzene	25.0	23.5		ug/L		94	70 - 130
Bromobenzene	25.0	25.8		ug/L		103	70 - 130
Chlorobromomethane	25.0	23.4		ug/L		94	70 - 130
Dichlorobromomethane	25.0	25.6		ug/L		103	70 - 130
Bromoform	25.0	22.6		ug/L		90	69 - 129
Bromomethane	25.0	25.3		ug/L		101	57 - 138
2-Butanone (MEK)	25.0	27.5	V1	ug/L		110	53 - 150
n-Butylbenzene	25.0	23.4		ug/L		94	70 - 130
sec-Butylbenzene	25.0	22.7		ug/L		91	70 - 130
Carbon disulfide	25.0	24.0		ug/L		96	64 - 145
Carbon tetrachloride	25.0	23.4		ug/L		93	70 - 143
Chlorobenzene	25.0	25.1		ug/L		100	70 - 130
Chloroethane	25.0	21.8		ug/L		87	66 - 131
Chloroform	25.0	25.7		ug/L		103	70 - 130
Chloromethane	25.0	21.6		ug/L		86	56 - 129
2-Chlorotoluene	25.0	24.6		ug/L		99	70 - 130
4-Chlorotoluene	25.0	25.4		ug/L		102	70 - 130
Chlorodibromomethane	25.0	24.0		ug/L		96	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.4		ug/L		90	63 - 146
Ethylene Dibromide	25.0	26.2		ug/L		105	70 - 130
Dibromomethane	25.0	24.4		ug/L		98	70 - 130
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	70 - 130
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,4-Dichlorobenzene	25.0	23.0		ug/L		92	70 - 130
Dichlorodifluoromethane	25.0	18.2		ug/L		73	46 - 144
1,1-Dichloroethane	25.0	25.6		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	25.0		ug/L		100	66 - 139
1,1-Dichloroethene	25.0	24.4		ug/L		98	63 - 131
cis-1,2-Dichloroethene	25.0	25.2		ug/L		101	70 - 130
trans-1,2-Dichloroethene	25.0	26.8		ug/L		107	69 - 127
1,2-Dichloropropane	25.0	24.6		ug/L		98	70 - 130

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

Lab Sample ID: LCS 550-59196/4
Matrix: Water
Analysis Batch: 59196

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	25.0	24.6		ug/L		98	70 - 130
2,2-Dichloropropane	25.0	26.4		ug/L		106	69 - 139
1,1-Dichloropropene	25.0	23.7		ug/L		95	70 - 130
cis-1,3-Dichloropropene	25.0	24.8		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	23.7		ug/L		95	70 - 130
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	20.4		ug/L		82	76 - 145
2-Hexanone	25.0	23.8		ug/L		95	55 - 150
Iodomethane	25.0	26.5		ug/L		106	70 - 130
Isopropylbenzene	25.0	24.4		ug/L		98	88 - 141
4-Isopropyltoluene	25.0	22.5		ug/L		90	70 - 130
Methylene Chloride	25.0	25.6		ug/L		103	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	22.0		ug/L		88	64 - 142
Methyl tert-butyl ether	25.0	24.9		ug/L		100	70 - 130
Naphthalene	25.0	22.1		ug/L		88	78 - 143
N-Propylbenzene	25.0	25.1		ug/L		100	70 - 130
Styrene	25.0	24.1		ug/L		96	70 - 130
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.8		ug/L		103	70 - 130
Tetrachloroethene	25.0	23.9		ug/L		96	70 - 130
Toluene	25.0	23.8		ug/L		95	70 - 130
1,2,3-Trichlorobenzene	25.0	21.3		ug/L		85	79 - 139
1,2,4-Trichlorobenzene	25.0	22.2		ug/L		89	80 - 137
1,1,1-Trichloroethane	25.0	24.7		ug/L		99	71 - 131
1,1,2-Trichloroethane	25.0	26.1		ug/L		104	70 - 130
Trichloroethene	25.0	23.4		ug/L		94	70 - 130
Trichlorofluoromethane	25.0	22.7		ug/L		91	69 - 150
1,2,3-Trichloropropane	25.0	21.8		ug/L		87	70 - 130
1,2,4-Trimethylbenzene	25.0	23.9		ug/L		96	70 - 130
1,3,5-Trimethylbenzene	25.0	24.4		ug/L		98	70 - 130
Vinyl acetate	25.0	23.5		ug/L		94	67 - 148
Vinyl chloride	25.0	22.6		ug/L		91	65 - 137
Xylenes, Total	50.0	46.9		ug/L		94	70 - 130
Butadiene	25.0	22.3		ug/L		89	12 - 150
Hexane	25.0	22.8		ug/L		91	54 - 132
m-Xylene & p-Xylene	25.0	22.6		ug/L		90	70 - 130
o-Xylene	25.0	24.3		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: LCSD 550-59196/5
Matrix: Water
Analysis Batch: 59196

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	32.1		ug/L		128	38 - 150	31	35
Benzene	25.0	23.7		ug/L		95	70 - 130	1	20
Bromobenzene	25.0	24.7		ug/L		99	70 - 130	4	20
Chlorobromomethane	25.0	23.3		ug/L		93	70 - 130	0	20
Dichlorobromomethane	25.0	25.4		ug/L		102	70 - 130	1	20
Bromoform	25.0	23.8		ug/L		95	69 - 129	5	20
Bromomethane	25.0	24.8		ug/L		99	57 - 138	2	20
2-Butanone (MEK)	25.0	31.6	V1	ug/L		126	53 - 150	14	35
n-Butylbenzene	25.0	21.5		ug/L		86	70 - 130	9	20
sec-Butylbenzene	25.0	21.1		ug/L		85	70 - 130	7	20
Carbon disulfide	25.0	24.6		ug/L		99	64 - 145	3	33
Carbon tetrachloride	25.0	24.1		ug/L		96	70 - 143	3	20
Chlorobenzene	25.0	24.6		ug/L		98	70 - 130	2	20
Chloroethane	25.0	22.5		ug/L		90	66 - 131	3	20
Chloroform	25.0	26.3		ug/L		105	70 - 130	2	20
Chloromethane	25.0	21.4		ug/L		86	56 - 129	1	20
2-Chlorotoluene	25.0	23.2		ug/L		93	70 - 130	6	20
4-Chlorotoluene	25.0	23.4		ug/L		94	70 - 130	8	20
Chlorodibromomethane	25.0	25.0		ug/L		100	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	23.2		ug/L		93	63 - 146	3	22
Ethylene Dibromide	25.0	26.5		ug/L		106	70 - 130	1	20
Dibromomethane	25.0	23.5		ug/L		94	70 - 130	4	20
1,2-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130	3	20
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	70 - 130	6	20
1,4-Dichlorobenzene	25.0	23.4		ug/L		93	70 - 130	1	20
Dichlorodifluoromethane	25.0	16.9		ug/L		68	46 - 144	8	23
1,1-Dichloroethane	25.0	24.8		ug/L		99	70 - 130	3	20
1,2-Dichloroethane	25.0	26.9		ug/L		108	66 - 139	7	20
1,1-Dichloroethene	25.0	24.7		ug/L		99	63 - 131	1	22
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	70 - 130	3	20
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	69 - 127	4	20
1,2-Dichloropropane	25.0	24.0		ug/L		96	70 - 130	3	20
1,3-Dichloropropane	25.0	25.0		ug/L		100	70 - 130	2	20
2,2-Dichloropropane	25.0	26.0		ug/L		104	69 - 139	2	20
1,1-Dichloropropene	25.0	23.9		ug/L		96	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	23.2		ug/L		93	70 - 130	2	20
Ethylbenzene	25.0	22.5		ug/L		90	70 - 130	6	20
Hexachlorobutadiene	25.0	18.0	N1	ug/L		72	76 - 145	13	20
2-Hexanone	25.0	26.7		ug/L		107	55 - 150	11	35
Iodomethane	25.0	26.1		ug/L		105	70 - 130	1	20
Isopropylbenzene	25.0	23.9		ug/L		96	88 - 141	2	20
4-Isopropyltoluene	25.0	21.1		ug/L		84	70 - 130	6	20
Methylene Chloride	25.0	26.4		ug/L		106	63 - 128	3	21
4-Methyl-2-pentanone (MIBK)	25.0	25.0		ug/L		100	64 - 142	13	25
Methyl tert-butyl ether	25.0	27.4		ug/L		110	70 - 130	10	20
Naphthalene	25.0	22.4		ug/L		89	78 - 143	1	20
N-Propylbenzene	25.0	22.2		ug/L		89	70 - 130	12	20

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

Lab Sample ID: LCSD 550-59196/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59196

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Styrene	25.0	23.9		ug/L		96	70 - 130	1	20
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	70 - 130	2	20
1,1,2,2-Tetrachloroethane	25.0	25.8		ug/L		103	70 - 130	0	20
Tetrachloroethene	25.0	22.4		ug/L		90	70 - 130	6	20
Toluene	25.0	23.0		ug/L		92	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	21.4		ug/L		86	79 - 139	0	20
1,2,4-Trichlorobenzene	25.0	20.8		ug/L		83	80 - 137	7	20
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	71 - 131	1	20
1,1,2-Trichloroethane	25.0	25.6		ug/L		102	70 - 130	2	20
Trichloroethene	25.0	23.1		ug/L		93	70 - 130	1	20
Trichlorofluoromethane	25.0	22.4		ug/L		89	69 - 150	1	22
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	70 - 130	18	20
1,2,4-Trimethylbenzene	25.0	22.3		ug/L		89	70 - 130	7	20
1,3,5-Trimethylbenzene	25.0	22.8		ug/L		91	70 - 130	7	20
Vinyl acetate	25.0	24.4		ug/L		98	67 - 148	4	22
Vinyl chloride	25.0	21.8		ug/L		87	65 - 137	4	20
Xylenes, Total	50.0	46.1		ug/L		92	70 - 130	2	20
Butadiene	25.0	23.3		ug/L		93	12 - 150	4	35
Hexane	25.0	22.6		ug/L		90	54 - 132	1	28
m-Xylene & p-Xylene	25.0	22.1		ug/L		88	70 - 130	2	20
o-Xylene	25.0	24.0		ug/L		96	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 550-41754-A-4 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	13.5		ug/L		54	29 - 139
Benzene	ND	E8	25.0	23.7		ug/L		95	68 - 131
Bromobenzene	ND	E8	25.0	26.3		ug/L		105	70 - 130
Chlorobromomethane	ND	E8	25.0	25.0		ug/L		100	64 - 132
Dichlorobromomethane	ND	E8	25.0	25.5		ug/L		102	63 - 138
Bromoform	ND	E8	25.0	23.5		ug/L		94	60 - 128
Bromomethane	ND	E8	25.0	25.8		ug/L		103	47 - 144
2-Butanone (MEK)	ND	E8 V1	25.0	22.7	V1	ug/L		91	31 - 143
n-Butylbenzene	ND	E8	25.0	23.3		ug/L		93	69 - 140
sec-Butylbenzene	ND	E8	25.0	24.2		ug/L		97	72 - 136
Carbon disulfide	ND	E8	25.0	24.6		ug/L		99	45 - 150
Carbon tetrachloride	ND	E8	25.0	23.7		ug/L		95	65 - 147
Chlorobenzene	ND	E8	25.0	24.5		ug/L		98	70 - 130
Chloroethane	ND	E8	25.0	23.6		ug/L		95	57 - 139
Chloroform	0.50		25.0	26.6		ug/L		104	63 - 131
Chloromethane	ND	E8	25.0	21.9		ug/L		87	47 - 134

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

Lab Sample ID: 550-41754-A-4 MS
Matrix: Water
Analysis Batch: 59196

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	ND	E8	25.0	25.1		ug/L		100	71 - 131
4-Chlorotoluene	ND	E8	25.0	25.9		ug/L		103	70 - 130
Chlorodibromomethane	ND	E8	25.0	24.3		ug/L		97	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.6		ug/L		98	53 - 145
Ethylene Dibromide	ND	E8	25.0	25.5		ug/L		102	70 - 130
Dibromomethane	ND	E8	25.0	23.4		ug/L		94	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	24.8		ug/L		99	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	23.4		ug/L		94	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	24.2		ug/L		97	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	19.5		ug/L		78	40 - 148
1,1-Dichloroethane	ND	E8	25.0	25.2		ug/L		101	62 - 130
1,2-Dichloroethane	ND	E8	25.0	25.6		ug/L		103	54 - 147
1,1-Dichloroethene	ND	E8	25.0	25.0		ug/L		100	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	25.5		ug/L		102	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.0		ug/L		100	62 - 131
1,2-Dichloropropane	ND	E8	25.0	24.4		ug/L		97	68 - 126
1,3-Dichloropropane	ND	E8	25.0	24.8		ug/L		99	68 - 129
2,2-Dichloropropane	ND	E8	25.0	24.8		ug/L		99	60 - 146
1,1-Dichloropropene	ND	E8	25.0	24.7		ug/L		99	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	23.4		ug/L		94	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	23.2		ug/L		93	58 - 136
Ethylbenzene	ND	E8	25.0	22.8		ug/L		91	74 - 134
Hexachlorobutadiene	ND	E8 N1	25.0	21.7		ug/L		87	69 - 150
2-Hexanone	ND	E8	25.0	19.7		ug/L		79	40 - 142
Iodomethane	ND	E8	25.0	25.7		ug/L		103	53 - 150
Isopropylbenzene	ND	E8	25.0	25.2		ug/L		101	80 - 146
4-Isopropyltoluene	ND	E8	25.0	23.3		ug/L		93	70 - 133
Methylene Chloride	ND	E8	25.0	25.1		ug/L		101	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	23.2		ug/L		93	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	25.7		ug/L		103	67 - 138
Naphthalene	ND	E8	25.0	22.4		ug/L		89	67 - 146
N-Propylbenzene	ND	E8	25.0	25.4		ug/L		102	74 - 140
Styrene	ND	E8	25.0	21.6		ug/L		86	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	22.8		ug/L		91	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.2		ug/L		109	63 - 137
Tetrachloroethene	0.22	E4	25.0	23.7		ug/L		94	67 - 131
Toluene	0.78		25.0	23.7		ug/L		92	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	22.9		ug/L		92	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	22.5		ug/L		90	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	24.8		ug/L		99	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	25.1		ug/L		101	63 - 132
Trichloroethene	ND	E8	25.0	25.5		ug/L		102	66 - 132
Trichlorofluoromethane	ND	E8	25.0	24.7		ug/L		99	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	23.7		ug/L		95	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	25.5		ug/L		102	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	25.1		ug/L		101	66 - 137
Vinyl acetate	ND	E8	25.0	24.6		ug/L		99	47 - 150
Vinyl chloride	ND	E8	25.0	23.7		ug/L		95	55 - 146

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

Lab Sample ID: 550-41754-A-4 MS
Matrix: Water
Analysis Batch: 59196

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	ND	E8	50.0	46.3		ug/L		93	68 - 131
Butadiene	ND	E8	25.0	23.9		ug/L		96	10 - 150
Hexane	ND	E8	25.0	23.4		ug/L		93	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	22.4		ug/L		90	58 - 138
o-Xylene	ND	E8	25.0	23.9		ug/L		95	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 550-41754-A-4 MSD
Matrix: Water
Analysis Batch: 59196

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	13.0		ug/L		52	29 - 139	4	35
Benzene	ND	E8	25.0	23.4		ug/L		94	68 - 131	1	32
Bromobenzene	ND	E8	25.0	24.7		ug/L		99	70 - 130	6	28
Chlorobromomethane	ND	E8	25.0	25.9		ug/L		103	64 - 132	3	35
Dichlorobromomethane	ND	E8	25.0	24.4		ug/L		98	63 - 138	4	31
Bromoform	ND	E8	25.0	23.0		ug/L		92	60 - 128	2	31
Bromomethane	ND	E8	25.0	26.8		ug/L		107	47 - 144	4	35
2-Butanone (MEK)	ND	E8 V1	25.0	25.7	V1	ug/L		103	31 - 143	13	35
n-Butylbenzene	ND	E8	25.0	22.7		ug/L		91	69 - 140	3	32
sec-Butylbenzene	ND	E8	25.0	23.7		ug/L		95	72 - 136	2	33
Carbon disulfide	ND	E8	25.0	25.7		ug/L		103	45 - 150	4	35
Carbon tetrachloride	ND	E8	25.0	24.3		ug/L		97	65 - 147	3	35
Chlorobenzene	ND	E8	25.0	24.2		ug/L		97	70 - 130	1	30
Chloroethane	ND	E8	25.0	24.6		ug/L		98	57 - 139	4	35
Chloroform	0.50		25.0	28.2		ug/L		111	63 - 131	6	33
Chloromethane	ND	E8	25.0	23.1		ug/L		92	47 - 134	5	35
2-Chlorotoluene	ND	E8	25.0	24.0		ug/L		96	71 - 131	4	29
4-Chlorotoluene	ND	E8	25.0	25.1		ug/L		101	70 - 130	3	28
Chlorodibromomethane	ND	E8	25.0	24.6		ug/L		98	65 - 134	1	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	26.7		ug/L		107	53 - 145	8	35
Ethylene Dibromide	ND	E8	25.0	25.6		ug/L		102	70 - 130	0	33
Dibromomethane	ND	E8	25.0	23.2		ug/L		93	66 - 136	1	35
1,2-Dichlorobenzene	ND	E8	25.0	25.1		ug/L		100	70 - 130	1	27
1,3-Dichlorobenzene	ND	E8	25.0	23.8		ug/L		95	70 - 130	2	28
1,4-Dichlorobenzene	ND	E8	25.0	25.0		ug/L		100	70 - 130	3	26
Dichlorodifluoromethane	ND	E8	25.0	18.7		ug/L		75	40 - 148	4	35
1,1-Dichloroethane	ND	E8	25.0	26.3		ug/L		105	62 - 130	4	34
1,2-Dichloroethane	ND	E8	25.0	26.9		ug/L		108	54 - 147	5	35
1,1-Dichloroethene	ND	E8	25.0	27.3		ug/L		109	57 - 137	9	35
cis-1,2-Dichloroethene	ND	E8	25.0	27.1		ug/L		108	65 - 127	6	34
trans-1,2-Dichloroethene	ND	E8	25.0	27.3		ug/L		109	62 - 131	9	35
1,2-Dichloropropane	ND	E8	25.0	23.6		ug/L		94	68 - 126	3	32

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

Lab Sample ID: 550-41754-A-4 MSD
Matrix: Water
Analysis Batch: 59196

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichloropropane	ND	E8	25.0	22.8		ug/L		91	68 - 129	9	33
2,2-Dichloropropane	ND	E8	25.0	25.5		ug/L		102	60 - 146	3	35
1,1-Dichloropropene	ND	E8	25.0	23.7		ug/L		95	64 - 134	4	34
cis-1,3-Dichloropropene	ND	E8	25.0	24.2		ug/L		97	63 - 135	3	35
trans-1,3-Dichloropropene	ND	E8	25.0	23.6		ug/L		94	58 - 136	2	35
Ethylbenzene	ND	E8	25.0	23.2		ug/L		93	74 - 134	2	32
Hexachlorobutadiene	ND	E8 N1	25.0	21.4		ug/L		86	69 - 150	1	32
2-Hexanone	ND	E8	25.0	19.9		ug/L		80	40 - 142	1	35
Iodomethane	ND	E8	25.0	27.7		ug/L		111	53 - 150	8	35
Isopropylbenzene	ND	E8	25.0	25.3		ug/L		101	80 - 146	1	32
4-Isopropyltoluene	ND	E8	25.0	23.0		ug/L		92	70 - 133	1	32
Methylene Chloride	ND	E8	25.0	26.2		ug/L		105	55 - 133	4	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	23.1		ug/L		92	52 - 143	0	35
Methyl tert-butyl ether	ND	E8	25.0	27.5		ug/L		110	67 - 138	7	21
Naphthalene	ND	E8	25.0	24.6		ug/L		98	67 - 146	10	29
N-Propylbenzene	ND	E8	25.0	24.4		ug/L		97	74 - 140	4	32
Styrene	ND	E8	25.0	22.6		ug/L		90	43 - 144	5	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	22.9		ug/L		92	70 - 130	1	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	26.9		ug/L		108	63 - 137	1	32
Tetrachloroethene	0.22	E4	25.0	23.8		ug/L		94	67 - 131	0	31
Toluene	0.78		25.0	24.2		ug/L		94	65 - 138	2	33
1,2,3-Trichlorobenzene	ND	E8	25.0	22.1		ug/L		89	74 - 139	4	26
1,2,4-Trichlorobenzene	ND	E8	25.0	21.2		ug/L		85	74 - 138	6	26
1,1,1-Trichloroethane	ND	E8	25.0	26.2		ug/L		105	64 - 138	5	35
1,1,2-Trichloroethane	ND	E8	25.0	25.3		ug/L		101	63 - 132	1	35
Trichloroethene	ND	E8	25.0	24.0		ug/L		96	66 - 132	6	29
Trichlorofluoromethane	ND	E8	25.0	24.9		ug/L		100	62 - 150	1	35
1,2,3-Trichloropropane	ND	E8	25.0	23.7		ug/L		95	68 - 130	0	32
1,2,4-Trimethylbenzene	ND	E8	25.0	23.6		ug/L		94	63 - 135	8	31
1,3,5-Trimethylbenzene	ND	E8	25.0	24.8		ug/L		99	66 - 137	1	30
Vinyl acetate	ND	E8	25.0	24.6		ug/L		99	47 - 150	0	35
Vinyl chloride	ND	E8	25.0	24.8		ug/L		99	55 - 146	5	35
Xylenes, Total	ND	E8	50.0	45.2		ug/L		90	68 - 131	2	31
Butadiene	ND	E8	25.0	25.2		ug/L		101	10 - 150	5	35
Hexane	ND	E8	25.0	27.0		ug/L		108	46 - 139	14	35
m-Xylene & p-Xylene	ND	E8	25.0	22.0		ug/L		88	58 - 138	2	29
o-Xylene	ND	E8	25.0	23.2		ug/L		93	66 - 137	3	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58883/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58883

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/17/15 15:11	1

Lab Sample ID: LCS 550-58883/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58883

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.00		mg/L		100	90 - 110

Lab Sample ID: LCSD 550-58883/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58883

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.00		mg/L		100	90 - 110	0	20

Lab Sample ID: 550-41683-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58883

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.055	E4	4.00	3.92		mg/L		97	80 - 120

Lab Sample ID: 550-41683-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58883

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.055	E4	4.00	3.94		mg/L		97	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58746/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58935 — **Prep Batch: 58746**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND	E8	0.010	0.00050	mg/L		03/17/15 16:08	03/18/15 23:01	1

Lab Sample ID: LCS 550-58746/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58935 — **Prep Batch: 58746**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.985		mg/L		99	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 550-58746/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58935 — **Prep Batch: 58746**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium			1.00	1.03		mg/L		103	85 - 115	4	20

Lab Sample ID: 550-41636-B-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58935 — **Prep Batch: 58746**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chromium	0.019		1.00	1.01		mg/L		99	70 - 130		

Lab Sample ID: 550-41636-B-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58935 — **Prep Batch: 58746**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	0.019		1.00	1.03		mg/L		101	70 - 130	2	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

GC/MS VOA

Analysis Batch: 59140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41486-C-1 MS	Matrix Spike	Total/NA	Water	8260B	
550-41486-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
550-41657-2	IRA-9-031615	Total/NA	Water	8260B	
550-41657-3	TB	Total/NA	Water	8260B	
LCS 550-59140/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-59140/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-59140/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 59196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41657-1	VillaCapri-031615	Total/NA	Water	8260B	
550-41754-A-4 MS	Matrix Spike	Total/NA	Water	8260B	
550-41754-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 550-59196/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-59196/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-59196/7	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41657-1	VillaCapri-031615	Total/NA	Water	300.0	
550-41657-2	IRA-9-031615	Total/NA	Water	300.0	
550-41683-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-41683-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
LCS 550-58883/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58883/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58883/2	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 58746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41636-B-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-41636-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
550-41657-1	VillaCapri-031615	Total/NA	Water	200.7	
550-41657-2	IRA-9-031615	Total/NA	Water	200.7	
LCS 550-58746/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58746/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58746/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41636-B-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	58746
550-41636-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	58746
550-41657-1	VillaCapri-031615	Total/NA	Water	200.7 Rev 4.4	58746
550-41657-2	IRA-9-031615	Total/NA	Water	200.7 Rev 4.4	58746
LCS 550-58746/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58746
LCSD 550-58746/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58746
MB 550-58746/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58746

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Client Sample ID: VillaCapri-031615

Lab Sample ID: 550-41657-1

Date Collected: 03/16/15 10:15
Matrix: Water
Date Received: 03/16/15 14:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59196	03/23/15 21:27	UT	TAL PHX
Total/NA	Analysis	300.0		1	58883	03/17/15 21:56	YAF	TAL PHX
Total/NA	Prep	200.7			58746	03/17/15 16:08	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58935	03/19/15 00:17	AJC	TAL PHX

Client Sample ID: IRA-9-031615

Lab Sample ID: 550-41657-2

Date Collected: 03/16/15 13:45
Matrix: Water
Date Received: 03/16/15 14:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59140	03/20/15 23:32	UT	TAL PHX
Total/NA	Analysis	300.0		1	58883	03/17/15 22:52	YAF	TAL PHX
Total/NA	Prep	200.7			58746	03/17/15 16:08	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58935	03/19/15 00:21	AJC	TAL PHX

Client Sample ID: TB

Lab Sample ID: 550-41657-3

Date Collected: 03/16/15 13:46
Matrix: Water
Date Received: 03/16/15 14:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59140	03/20/15 19:48	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41657-1
SDG: 1420142030.5.3

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (12/08)

CHAIN OF CUSTODY FORM 550-41657

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 2520 E. Sunset, Suite 3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

3/24/2015

Client Name/Address: AMEC 4600 E Washington Phoenix 85034

Project/PO Number: MIRACLE MILE WQARF 14261420 30.5.3

Project Manager: Allan Gill

Phone Number: 602-733-6000

Sampler: Sargent / Combs

Fax Number:

550-41657 Chain of Custody

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260 60 LL	300.0 Nitrate	200.7 total Chromium						Special Instructions
VillaCapri-031615	Aq	40ml 250ml	5	3/16/15	1015	HCl HNO3	X	X	X						
IRA-9-031615	Aq	40ml 250ml	5	3/16/15	1345	HCl HNO3	X	X	X						ADEQ# 58229
TB	Aq	40ml	1	3/16/15	1346	HCl	X								

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	3/16/15 1411	[signature]	3-16-15 1411
[signature]	3-16-15 1532		
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
Fed Ex		[signature]	3/17/15 10:00

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ____ on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

3.2

1.8 C.S.

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41657-1
SDG Number: 1420142030.5.3

Login Number: 41657
List Number: 1
Creator: Gaska, Kristinena

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41743-1
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/31/2015 9:24:37 AM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
D2	Sample required dilution due to high concentration of analyte.
H1	Sample analysis performed past holding time.
D1	Sample required dilution due to matrix.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-41743-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41743-1

Comments
No additional comments.

Receipt
The samples were received on 3/17/2015 2:51 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.6º C and 2.7º C.

GC/MS VOA
Method(s) 8260B: Internal standard response for the following source sample 550-41581-F-1 exceeded the lower control limit. As such, the sample results may be biased high. The sample will be re-analyzed. The source sample will be flagged with an N1 qualifier and reported, see batch 59162.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
Method(s) 300.0: The sample SJ-MW-2-031715 (550-41743-1) was analyzed outside of analytical holding time for Nitrate due to a login error. The sample will be qualified with an H1 flag for Nitrate.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41743-1	SJ-MW-2-031715	Water	03/17/15 12:10	03/17/15 14:51
550-41743-2	IRA-17-031715	Water	03/17/15 13:10	03/17/15 14:51
550-41743-3	IRA-21-031715	Water	03/17/15 13:30	03/17/15 14:51
550-41743-4	IRA-12-70-031715	Water	03/17/15 13:55	03/17/15 14:51
550-41743-5	IRA-12-70-031715-DUP	Water	03/17/15 13:55	03/17/15 14:51
550-41743-6	IRA-16-031715	Water	03/17/15 14:20	03/17/15 14:51
550-41743-7	IRA-22-031715	Water	03/17/15 14:40	03/17/15 14:51
550-41743-8	TB	Water	03/17/15 14:41	03/17/15 14:51

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: SJ-MW-2-031715 — Lab Sample ID: 550-41743-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzene	0.22	E4	0.50	0.12	ug/L	1		8260B	Total/NA
Carbon disulfide	1.9		1.0	0.86	ug/L	1		8260B	Total/NA
Chloroform	0.47	E4	0.50	0.13	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	3.8		0.50	0.21	ug/L	1		8260B	Total/NA
Trichloroethene	89		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	31	D2 H1	1.0	0.51	mg/L	10		300.0	Total/NA
Chloride	120	D2	20	2.9	mg/L	10		300.0	Total/NA
Sulfate	640	D2	20	2.1	mg/L	10		300.0	Total/NA
Bromide	1.5	D1	1.0	0.10	mg/L	2		300.0	Total/NA
Boron	0.10		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	280		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	39		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.4		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	210		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	76		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	290		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	290		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-17-031715 — Lab Sample ID: 550-41743-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.82		0.50	0.13	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.1		0.50	0.21	ug/L	1		8260B	Total/NA
Trichloroethene - DL	500		5.0	2.4	ug/L	10		8260B	Total/NA
Chromium	0.034		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-21-031715 — Lab Sample ID: 550-41743-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzene	0.17	E4	0.50	0.12	ug/L	1		8260B	Total/NA
Chloroform	0.28	E4	0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.60		0.50	0.23	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.3		0.50	0.21	ug/L	1		8260B	Total/NA
Trichloroethene	77		0.50	0.24	ug/L	1		8260B	Total/NA
Chromium	0.016		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-12-70-031715 — Lab Sample ID: 550-41743-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.42	E4	0.50	0.23	ug/L	1		8260B	Total/NA
Trichloroethene	8.6		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	3.5		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.015		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-12-70-031715-DUP — Lab Sample ID: 550-41743-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	8.5		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	3.8		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.043		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: IRA-16-031715 — Lab Sample ID: 550-41743-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.70		0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	2.3		0.50	0.23	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	7.6		0.50	0.21	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.73		0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene - DL	500		5.0	2.4	ug/L	10		8260B	Total/NA
Chromium	0.026		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-22-031715 — Lab Sample ID: 550-41743-7

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Benzene	0.44	E4	0.50	0.12	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.99		0.50	0.31	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	4.5		0.50	0.23	ug/L	1		8260B	Total/NA
Trichloroethene	54		0.50	0.24	ug/L	1		8260B	Total/NA
Chromium	0.029		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41743-8

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: SJ-MW-2-031715
Date Collected: 03/17/15 12:10
Date Received: 03/17/15 14:51

Lab Sample ID: 550-41743-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 02:11	1
Benzene	**0.22**	**E4**	0.50	0.12	ug/L			03/21/15 02:11	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 02:11	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 02:11	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 02:11	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 02:11	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 02:11	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 02:11	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 02:11	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 02:11	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 02:11	1
Carbon disulfide	**1.9**		1.0	0.86	ug/L			03/21/15 02:11	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 02:11	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 02:11	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 02:11	1
Chloroform	**0.47**	**E4**	0.50	0.13	ug/L			03/21/15 02:11	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 02:11	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 02:11	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 02:11	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 02:11	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 02:11	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 02:11	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 02:11	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 02:11	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 02:11	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 02:11	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 02:11	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 02:11	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 02:11	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/21/15 02:11	1
cis-1,2-Dichloroethene	**3.8**		0.50	0.21	ug/L			03/21/15 02:11	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 02:11	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 02:11	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 02:11	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 02:11	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 02:11	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 02:11	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 02:11	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 02:11	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 02:11	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 02:11	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 02:11	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 02:11	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 02:11	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 02:11	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 02:11	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 02:11	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/21/15 02:11	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 02:11	1

Client Sample ID: SJ-MW-2-031715

Lab Sample ID: 550-41743-1

Date Collected: 03/17/15 12:10

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 02:11	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 02:11	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 02:11	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/21/15 02:11	1
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 02:11	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 02:11	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 02:11	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 02:11	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 02:11	1
Trichloroethene	**89**		0.50	0.24	ug/L			03/21/15 02:11	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 02:11	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 02:11	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 02:11	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 02:11	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 02:11	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 02:11	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 02:11	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 02:11	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 02:11	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 02:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 02:11*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/21/15 02:11*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/21/15 02:11*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/21/15 02:11*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/21/15 02:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*03/21/15 02:11*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*03/21/15 02:11*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*03/21/15 02:11*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**31**	**D2 H1**	1.0	0.51	mg/L			03/24/15 04:18	10
Chloride	**120**	**D2**	20	2.9	mg/L			03/24/15 04:18	10
Sulfate	**640**	**D2**	20	2.1	mg/L			03/24/15 04:18	10
Bromide	**1.5**	**D1**	1.0	0.10	mg/L			03/26/15 05:21	2

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.10**		0.050	0.0049	mg/L		03/18/15 14:54	03/19/15 21:56	1
Calcium	**280**		2.0	0.014	mg/L		03/18/15 14:54	03/19/15 21:56	1
Magnesium	**39**		2.0	0.017	mg/L		03/18/15 14:54	03/19/15 21:56	1
Potassium	**5.4**		0.50	0.067	mg/L		03/18/15 14:54	03/19/15 21:56	1
Sodium	**210**		0.50	0.15	mg/L		03/18/15 14:54	03/19/15 21:56	1
Chromium	**76**		0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 21:56	1

Client Sample ID: SJ-MW-2-031715

Lab Sample ID: 550-41743-1

Date Collected: 03/17/15 12:10

Matrix: Water

Date Received: 03/17/15 14:51

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**290**		6.0	6.0	mg/L			03/24/15 05:29	1
Bicarbonate Alkalinity as CaCO3	**290**		6.0	6.0	mg/L			03/24/15 05:29	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 05:29	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/24/15 05:29	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 05:29	1

Client Sample ID: IRA-17-031715

Lab Sample ID: 550-41743-2

Date Collected: 03/17/15 13:10

Matrix: Water

Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 02:43	1
Benzene	ND	E8	0.50	0.12	ug/L			03/21/15 02:43	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 02:43	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 02:43	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 02:43	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 02:43	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 02:43	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 02:43	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 02:43	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 02:43	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 02:43	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/21/15 02:43	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 02:43	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 02:43	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 02:43	1
Chloroform	**0.82**		0.50	0.13	ug/L			03/21/15 02:43	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 02:43	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 02:43	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 02:43	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 02:43	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 02:43	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 02:43	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 02:43	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 02:43	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 02:43	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 02:43	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 02:43	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 02:43	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 02:43	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/21/15 02:43	1
cis-1,2-Dichloroethene	**1.1**		0.50	0.21	ug/L			03/21/15 02:43	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 02:43	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 02:43	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 02:43	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 02:43	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 02:43	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 02:43	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 02:43	1

Client Sample ID: IRA-17-031715

Lab Sample ID: 550-41743-2

Date Collected: 03/17/15 13:10

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 02:43	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 02:43	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 02:43	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 02:43	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 02:43	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 02:43	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 02:43	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 02:43	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 02:43	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/21/15 02:43	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 02:43	1
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 02:43	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 02:43	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 02:43	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/21/15 02:43	1
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 02:43	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 02:43	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 02:43	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 02:43	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 02:43	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 02:43	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 02:43	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 02:43	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 02:43	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 02:43	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 02:43	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 02:43	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 02:43	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 02:43	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 02:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 02:43*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/21/15 02:43*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/21/15 02:43*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/21/15 02:43*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/21/15 02:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*03/21/15 02:43*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/21/15 02:43*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*03/21/15 02:43*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**500**		5.0	2.4	ug/L			03/23/15 20:16	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*88*		*70 - 130*		*03/23/15 20:16*	*10*
Toluene-d8 (Surr)	*90*		*70 - 130*		*03/23/15 20:16*	*10*

Client Sample ID: IRA-17-031715

Lab Sample ID: 550-41743-2

Date Collected: 03/17/15 13:10
Matrix: Water
Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*03/23/15 20:16*	*10*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.034**		0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 22:08	1

Client Sample ID: IRA-21-031715

Lab Sample ID: 550-41743-3

Date Collected: 03/17/15 13:30
Matrix: Water
Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 03:14	1
Benzene	**0.17**	**E4**	0.50	0.12	ug/L			03/21/15 03:14	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 03:14	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 03:14	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 03:14	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 03:14	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 03:14	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 03:14	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 03:14	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 03:14	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 03:14	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/21/15 03:14	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 03:14	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 03:14	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 03:14	1
Chloroform	**0.28**	**E4**	0.50	0.13	ug/L			03/21/15 03:14	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 03:14	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 03:14	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 03:14	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 03:14	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 03:14	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 03:14	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 03:14	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 03:14	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 03:14	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 03:14	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 03:14	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 03:14	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 03:14	1
1,1-Dichloroethene	**0.60**		0.50	0.23	ug/L			03/21/15 03:14	1
cis-1,2-Dichloroethene	**1.3**		0.50	0.21	ug/L			03/21/15 03:14	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 03:14	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 03:14	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 03:14	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 03:14	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 03:14	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 03:14	1

Client Sample ID: IRA-21-031715

Lab Sample ID: 550-41743-3

Date Collected: 03/17/15 13:30

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 03:14	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 03:14	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 03:14	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 03:14	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 03:14	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 03:14	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 03:14	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 03:14	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 03:14	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 03:14	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/21/15 03:14	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 03:14	1
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 03:14	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 03:14	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 03:14	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/21/15 03:14	1
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 03:14	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 03:14	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 03:14	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 03:14	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 03:14	1
Trichloroethene	**77**		0.50	0.24	ug/L			03/21/15 03:14	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 03:14	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 03:14	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 03:14	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 03:14	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 03:14	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 03:14	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 03:14	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 03:14	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 03:14	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 03:14	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 03:14*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/21/15 03:14*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/21/15 03:14*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/21/15 03:14*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/21/15 03:14*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/21/15 03:14*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/21/15 03:14*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*03/21/15 03:14*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.016**		0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 22:14	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: IRA-12-70-031715

Lab Sample ID: 550-41743-4

Date Collected: 03/17/15 13:55
Matrix: Water
Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 03:47	1
Benzene	ND	E8	0.50	0.12	ug/L			03/21/15 03:47	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 03:47	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 03:47	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 03:47	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 03:47	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 03:47	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 03:47	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 03:47	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 03:47	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 03:47	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/21/15 03:47	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 03:47	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 03:47	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 03:47	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/21/15 03:47	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 03:47	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 03:47	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 03:47	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 03:47	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 03:47	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 03:47	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 03:47	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 03:47	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 03:47	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 03:47	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 03:47	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 03:47	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 03:47	1
1,1-Dichloroethene	**0.42**	**E4**	0.50	0.23	ug/L			03/21/15 03:47	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/21/15 03:47	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 03:47	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 03:47	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 03:47	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 03:47	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 03:47	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 03:47	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 03:47	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 03:47	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 03:47	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 03:47	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 03:47	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 03:47	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 03:47	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 03:47	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 03:47	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 03:47	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/21/15 03:47	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 03:47	1

Client Sample ID: IRA-12-70-031715

Lab Sample ID: 550-41743-4

Date Collected: 03/17/15 13:55

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 03:47	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 03:47	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 03:47	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/21/15 03:47	1
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 03:47	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 03:47	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 03:47	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 03:47	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 03:47	1
Trichloroethene	**8.6**		0.50	0.24	ug/L			03/21/15 03:47	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 03:47	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 03:47	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 03:47	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 03:47	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 03:47	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 03:47	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 03:47	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 03:47	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 03:47	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 03:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 03:47*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/21/15 03:47*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/21/15 03:47*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/21/15 03:47*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/21/15 03:47*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*03/21/15 03:47*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*03/21/15 03:47*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/21/15 03:47*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**3.5**		0.10	0.051	mg/L			03/18/15 21:23	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.015**		0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 22:17	1

Client Sample ID: IRA-12-70-031715-DUP

Lab Sample ID: 550-41743-5

Date Collected: 03/17/15 13:55

Matrix: Water

Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 04:19	1
Benzene	ND	E8	0.50	0.12	ug/L			03/21/15 04:19	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 04:19	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 04:19	1

Client Sample ID: IRA-12-70-031715-DUP

Lab Sample ID: 550-41743-5

Date Collected: 03/17/15 13:55

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 04:19	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 04:19	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 04:19	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 04:19	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 04:19	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 04:19	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 04:19	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/21/15 04:19	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 04:19	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 04:19	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 04:19	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/21/15 04:19	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 04:19	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 04:19	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 04:19	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 04:19	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 04:19	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 04:19	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 04:19	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 04:19	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 04:19	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 04:19	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 04:19	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 04:19	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 04:19	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/21/15 04:19	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/21/15 04:19	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 04:19	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 04:19	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 04:19	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 04:19	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 04:19	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 04:19	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 04:19	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 04:19	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 04:19	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 04:19	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 04:19	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 04:19	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 04:19	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 04:19	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 04:19	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 04:19	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/21/15 04:19	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 04:19	1
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 04:19	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 04:19	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 04:19	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/21/15 04:19	1

Client Sample ID: IRA-12-70-031715-DUP

Lab Sample ID: 550-41743-5

Date Collected: 03/17/15 13:55

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 04:19	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 04:19	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 04:19	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 04:19	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 04:19	1
Trichloroethene	**8.5**		0.50	0.24	ug/L			03/21/15 04:19	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 04:19	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 04:19	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 04:19	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 04:19	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 04:19	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 04:19	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 04:19	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 04:19	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 04:19	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 04:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 04:19*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/21/15 04:19*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/21/15 04:19*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/21/15 04:19*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/21/15 04:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*03/21/15 04:19*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*03/21/15 04:19*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*03/21/15 04:19*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**3.8**		0.10	0.051	mg/L			03/18/15 21:41	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.043**		0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 22:19	1

Client Sample ID: IRA-16-031715

Lab Sample ID: 550-41743-6

Date Collected: 03/17/15 14:20

Matrix: Water

Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 04:51	1
Benzene	ND	E8	0.50	0.12	ug/L			03/21/15 04:51	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 04:51	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 04:51	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 04:51	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 04:51	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 04:51	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 04:51	1

Client Sample ID: IRA-16-031715

Lab Sample ID: 550-41743-6

Date Collected: 03/17/15 14:20

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 04:51	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 04:51	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 04:51	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/21/15 04:51	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 04:51	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 04:51	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 04:51	1
Chloroform	**0.70**		0.50	0.13	ug/L			03/21/15 04:51	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 04:51	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 04:51	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 04:51	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 04:51	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 04:51	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 04:51	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 04:51	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 04:51	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 04:51	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 04:51	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 04:51	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 04:51	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 04:51	1
1,1-Dichloroethene	**2.3**		0.50	0.23	ug/L			03/21/15 04:51	1
cis-1,2-Dichloroethene	**7.6**		0.50	0.21	ug/L			03/21/15 04:51	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 04:51	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 04:51	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 04:51	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 04:51	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 04:51	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 04:51	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 04:51	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 04:51	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 04:51	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 04:51	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 04:51	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 04:51	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 04:51	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 04:51	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 04:51	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 04:51	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/21/15 04:51	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 04:51	1
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 04:51	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 04:51	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 04:51	1
Tetrachloroethene	**0.73**		0.50	0.18	ug/L			03/21/15 04:51	1
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 04:51	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 04:51	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 04:51	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 04:51	1

Client Sample ID: IRA-16-031715

Lab Sample ID: 550-41743-6

Date Collected: 03/17/15 14:20

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 04:51	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 04:51	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 04:51	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 04:51	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 04:51	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 04:51	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 04:51	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 04:51	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 04:51	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 04:51	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 04:51	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 04:51*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/21/15 04:51*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/21/15 04:51*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/21/15 04:51*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/21/15 04:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*03/21/15 04:51*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*03/21/15 04:51*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*03/21/15 04:51*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**500**		5.0	2.4	ug/L			03/23/15 20:47	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*87*		*70 - 130*		*03/23/15 20:47*	*10*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/23/15 20:47*	*10*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/23/15 20:47*	*10*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.026**		0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 22:25	1

Client Sample ID: IRA-22-031715

Lab Sample ID: 550-41743-7

Date Collected: 03/17/15 14:40

Matrix: Water

Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/22/15 03:48	1
Benzene	**0.44**	**E4**	0.50	0.12	ug/L			03/22/15 03:48	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/22/15 03:48	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/22/15 03:48	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/22/15 03:48	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/22/15 03:48	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/22/15 03:48	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/22/15 03:48	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: IRA-22-031715
Date Collected: 03/17/15 14:40
Date Received: 03/17/15 14:51

Lab Sample ID: 550-41743-7
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/22/15 03:48	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/22/15 03:48	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/22/15 03:48	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/22/15 03:48	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/22/15 03:48	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/22/15 03:48	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/22/15 03:48	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/22/15 03:48	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/22/15 03:48	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/22/15 03:48	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/22/15 03:48	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/22/15 03:48	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/22/15 03:48	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/22/15 03:48	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/22/15 03:48	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/22/15 03:48	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/22/15 03:48	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/22/15 03:48	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/22/15 03:48	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/22/15 03:48	1
1,2-Dichloroethane	**0.99**		0.50	0.31	ug/L			03/22/15 03:48	1
1,1-Dichloroethene	**4.5**		0.50	0.23	ug/L			03/22/15 03:48	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/22/15 03:48	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/22/15 03:48	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/22/15 03:48	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/22/15 03:48	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/22/15 03:48	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/22/15 03:48	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/22/15 03:48	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/22/15 03:48	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/22/15 03:48	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/22/15 03:48	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/22/15 03:48	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/22/15 03:48	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/22/15 03:48	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/22/15 03:48	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/22/15 03:48	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/22/15 03:48	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/22/15 03:48	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/22/15 03:48	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/22/15 03:48	1
Styrene	ND	E8	0.50	0.17	ug/L			03/22/15 03:48	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/22/15 03:48	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/22/15 03:48	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/22/15 03:48	1
Toluene	ND	E8	0.50	0.28	ug/L			03/22/15 03:48	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/22/15 03:48	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/22/15 03:48	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/22/15 03:48	1

Client Sample ID: IRA-22-031715

Lab Sample ID: 550-41743-7

Date Collected: 03/17/15 14:40

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/22/15 03:48	1
Trichloroethene	**54**		0.50	0.24	ug/L			03/22/15 03:48	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/22/15 03:48	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/22/15 03:48	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/22/15 03:48	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/22/15 03:48	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/22/15 03:48	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/22/15 03:48	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/22/15 03:48	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/22/15 03:48	1
Hexane	ND	E8	2.0	1.6	ug/L			03/22/15 03:48	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/22/15 03:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/22/15 03:48*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/22/15 03:48*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/22/15 03:48*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/22/15 03:48*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/22/15 03:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*03/22/15 03:48*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*03/22/15 03:48*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*03/22/15 03:48*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.029**		0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 22:28	1

Client Sample ID: TB

Lab Sample ID: 550-41743-8

Date Collected: 03/17/15 14:41

Matrix: Water

Date Received: 03/17/15 14:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 22:28	1
Benzene	ND	E8	0.50	0.12	ug/L			03/21/15 22:28	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 22:28	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 22:28	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 22:28	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 22:28	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 22:28	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 22:28	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 22:28	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 22:28	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 22:28	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/21/15 22:28	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 22:28	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 22:28	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 22:28	1

Client Sample ID: TB

Lab Sample ID: 550-41743-8

Date Collected: 03/17/15 14:41

Matrix: Water

Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND	E8	0.50	0.13	ug/L			03/21/15 22:28	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 22:28	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 22:28	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 22:28	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 22:28	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 22:28	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 22:28	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 22:28	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 22:28	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 22:28	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 22:28	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 22:28	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 22:28	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 22:28	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/21/15 22:28	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/21/15 22:28	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 22:28	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 22:28	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 22:28	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 22:28	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 22:28	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 22:28	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 22:28	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 22:28	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 22:28	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 22:28	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 22:28	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 22:28	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 22:28	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 22:28	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 22:28	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 22:28	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/21/15 22:28	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 22:28	1
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 22:28	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 22:28	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 22:28	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/21/15 22:28	1
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 22:28	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 22:28	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 22:28	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 22:28	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 22:28	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/21/15 22:28	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 22:28	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 22:28	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 22:28	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 22:28	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 22:28	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: TB

Lab Sample ID: 550-41743-8

Date Collected: 03/17/15 14:41
Matrix: Water
Date Received: 03/17/15 14:51

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 22:28	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 22:28	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 22:28	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 22:28	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 22:28	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 22:28*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/21/15 22:28*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/21/15 22:28*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/21/15 22:28*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/21/15 22:28*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*03/21/15 22:28*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/21/15 22:28*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*03/21/15 22:28*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41486-C-1 MS	Matrix Spike	97	96	91
550-41486-C-1 MSD	Matrix Spike Duplicate	96	96	94
550-41526-B-1 MS - DL	Matrix Spike	104	99	102
550-41526-B-1 MSD - DL	Matrix Spike Duplicate	101	92	95
550-41581-F-1 MS	Matrix Spike	114	99	93
550-41581-F-1 MSD	Matrix Spike Duplicate	114	98	94
550-41743-1	SJ-MW-2-031715	102	91	86
550-41743-2	IRA-17-031715	104	89	94
550-41743-2 - DL	IRA-17-031715	88	90	89
550-41743-3	IRA-21-031715	95	96	94
550-41743-4	IRA-12-70-031715	99	95	87
550-41743-5	IRA-12-70-031715-DUP	105	90	90
550-41743-6	IRA-16-031715	101	98	89
550-41743-6 - DL	IRA-16-031715	87	89	87
550-41743-7	IRA-22-031715	103	93	98
550-41743-8	TB	111	96	93
LCS 550-59140/3	Lab Control Sample	100	97	96
LCS 550-59162/3	Lab Control Sample	100	102	97
LCS 550-59202/6	Lab Control Sample	102	93	96
LCSD 550-59140/4	Lab Control Sample Dup	99	91	97
LCSD 550-59162/4	Lab Control Sample Dup	106	103	101
LCSD 550-59202/7	Lab Control Sample Dup	102	95	97
MB 550-59140/6	Method Blank	100	96	93
MB 550-59162/6	Method Blank	105	94	85
MB 550-59202/8	Method Blank	89	88	89

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-59140/6
Matrix: Water
Analysis Batch: 59140

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/20/15 19:16	1
Benzene	ND	E8	0.50	0.12	ug/L			03/20/15 19:16	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/20/15 19:16	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/20/15 19:16	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/20/15 19:16	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/20/15 19:16	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 19:16	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/20/15 19:16	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/20/15 19:16	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/20/15 19:16	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/20/15 19:16	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/20/15 19:16	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/20/15 19:16	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/20/15 19:16	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/20/15 19:16	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/20/15 19:16	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/20/15 19:16	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 19:16	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/20/15 19:16	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/20/15 19:16	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/20/15 19:16	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/20/15 19:16	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/20/15 19:16	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/20/15 19:16	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/20/15 19:16	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/20/15 19:16	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/20/15 19:16	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/20/15 19:16	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/20/15 19:16	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/20/15 19:16	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/20/15 19:16	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/20/15 19:16	1
Naphthalene	0.921	E4	2.5	0.51	ug/L			03/20/15 19:16	1

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

Lab Sample ID: MB 550-59140/6
Matrix: Water
Analysis Batch: 59140

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
Styrene	ND	E8	0.50	0.17	ug/L			03/20/15 19:16	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/20/15 19:16	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/20/15 19:16	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/20/15 19:16	1
Toluene	0.364	E4	0.50	0.28	ug/L			03/20/15 19:16	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/20/15 19:16	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/20/15 19:16	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/20/15 19:16	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/20/15 19:16	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/20/15 19:16	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/20/15 19:16	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/20/15 19:16	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/20/15 19:16	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/20/15 19:16	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/20/15 19:16	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/20/15 19:16	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/20/15 19:16	1
Hexane	ND	E8	2.0	1.6	ug/L			03/20/15 19:16	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/20/15 19:16	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/20/15 19:16*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/20/15 19:16*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/20/15 19:16*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/20/15 19:16*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/20/15 19:16*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*03/20/15 19:16*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/20/15 19:16*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*03/20/15 19:16*	*1*

Lab Sample ID: LCS 550-59140/3
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	28.8		ug/L		115	38 - 150
Benzene	25.0	24.0		ug/L		96	70 - 130
Bromobenzene	25.0	26.9		ug/L		107	70 - 130
Chlorobromomethane	25.0	24.8		ug/L		99	70 - 130
Dichlorobromomethane	25.0	24.2		ug/L		97	70 - 130
Bromoform	25.0	23.4		ug/L		94	69 - 129
Bromomethane	25.0	27.1		ug/L		108	57 - 138
2-Butanone (MEK)	25.0	35.8		ug/L		143	53 - 150

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

Lab Sample ID: LCS 550-59140/3
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	23.4		ug/L		93	70 - 130
sec-Butylbenzene	25.0	25.7		ug/L		103	70 - 130
Carbon disulfide	25.0	24.6		ug/L		98	64 - 145
Carbon tetrachloride	25.0	24.6		ug/L		98	70 - 143
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130
Chloroethane	25.0	24.3		ug/L		97	66 - 131
Chloroform	25.0	25.3		ug/L		101	70 - 130
Chloromethane	25.0	22.3		ug/L		89	56 - 129
2-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130
Chlorodibromomethane	25.0	23.3		ug/L		93	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	63 - 146
Ethylene Dibromide	25.0	24.8		ug/L		99	70 - 130
Dibromomethane	25.0	21.9		ug/L		88	70 - 130
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.9		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	20.4		ug/L		82	46 - 144
1,1-Dichloroethane	25.0	24.4		ug/L		97	70 - 130
1,2-Dichloroethane	25.0	24.5		ug/L		98	66 - 139
1,1-Dichloroethene	25.0	25.2		ug/L		101	63 - 131
cis-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	69 - 127
1,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	24.3		ug/L		97	70 - 130
2,2-Dichloropropane	25.0	27.2		ug/L		109	69 - 139
1,1-Dichloropropene	25.0	24.2		ug/L		97	70 - 130
cis-1,3-Dichloropropene	25.0	22.9		ug/L		92	70 - 130
trans-1,3-Dichloropropene	25.0	22.0		ug/L		88	70 - 130
Ethylbenzene	25.0	24.8		ug/L		99	70 - 130
Hexachlorobutadiene	25.0	23.0		ug/L		92	76 - 145
2-Hexanone	25.0	26.8		ug/L		107	55 - 150
Iodomethane	25.0	26.1		ug/L		104	70 - 130
Isopropylbenzene	25.0	27.3		ug/L		109	88 - 141
4-Isopropyltoluene	25.0	23.0		ug/L		92	70 - 130
Methylene Chloride	25.0	24.5		ug/L		98	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	22.8		ug/L		91	64 - 142
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130
Naphthalene	25.0	23.8		ug/L		95	78 - 143
N-Propylbenzene	25.0	27.0		ug/L		108	70 - 130
Styrene	25.0	23.2		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.0		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	70 - 130
Tetrachloroethene	25.0	24.2		ug/L		97	70 - 130
Toluene	25.0	23.4		ug/L		94	70 - 130
1,2,3-Trichlorobenzene	25.0	22.3		ug/L		89	79 - 139
1,2,4-Trichlorobenzene	25.0	22.6		ug/L		90	80 - 137
1,1,1-Trichloroethane	25.0	26.3		ug/L		105	71 - 131

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

Lab Sample ID: LCS 550-59140/3
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	22.9		ug/L		92	70 - 130
Trichloroethene	25.0	24.7		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	23.6		ug/L		94	69 - 150
1,2,3-Trichloropropane	25.0	24.8		ug/L		99	70 - 130
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 130
Vinyl acetate	25.0	22.4		ug/L		90	67 - 148
Vinyl chloride	25.0	23.3		ug/L		93	65 - 137
Xylenes, Total	50.0	45.8		ug/L		92	70 - 130
Butadiene	25.0	25.1		ug/L		100	12 - 150
Hexane	25.0	26.9		ug/L		108	54 - 132
m-Xylene & p-Xylene	25.0	21.5		ug/L		86	70 - 130
o-Xylene	25.0	24.3		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 550-59140/4
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	30.3		ug/L		121	38 - 150	5	35
Benzene	25.0	22.5		ug/L		90	70 - 130	6	20
Bromobenzene	25.0	25.4		ug/L		102	70 - 130	6	20
Chlorobromomethane	25.0	22.9		ug/L		92	70 - 130	8	20
Dichlorobromomethane	25.0	23.4		ug/L		93	70 - 130	4	20
Bromoform	25.0	21.1		ug/L		85	69 - 129	10	20
Bromomethane	25.0	25.9		ug/L		104	57 - 138	4	20
2-Butanone (MEK)	25.0	34.3		ug/L		137	53 - 150	4	35
n-Butylbenzene	25.0	22.3		ug/L		89	70 - 130	5	20
sec-Butylbenzene	25.0	24.3		ug/L		97	70 - 130	5	20
Carbon disulfide	25.0	25.4		ug/L		102	64 - 145	3	33
Carbon tetrachloride	25.0	23.7		ug/L		95	70 - 143	4	20
Chlorobenzene	25.0	24.2		ug/L		97	70 - 130	4	20
Chloroethane	25.0	21.3		ug/L		85	66 - 131	13	20
Chloroform	25.0	25.6		ug/L		102	70 - 130	1	20
Chloromethane	25.0	22.7		ug/L		91	56 - 129	2	20
2-Chlorotoluene	25.0	24.8		ug/L		99	70 - 130	6	20
4-Chlorotoluene	25.0	24.9		ug/L		100	70 - 130	3	20
Chlorodibromomethane	25.0	23.4		ug/L		94	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	22.9		ug/L		92	63 - 146	5	22
Ethylene Dibromide	25.0	23.4		ug/L		94	70 - 130	6	20
Dibromomethane	25.0	20.7		ug/L		83	70 - 130	6	20
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	7	20
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	6	20

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

Lab Sample ID: LCSD 550-59140/4
Matrix: Water
Analysis Batch: 59140

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130	11	20
Dichlorodifluoromethane	25.0	19.8		ug/L		79	46 - 144	3	23
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130	5	20
1,2-Dichloroethane	25.0	24.2		ug/L		97	66 - 139	2	20
1,1-Dichloroethene	25.0	25.9		ug/L		104	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	26.6		ug/L		107	69 - 127	3	20
1,2-Dichloropropane	25.0	23.2		ug/L		93	70 - 130	8	20
1,3-Dichloropropane	25.0	23.5		ug/L		94	70 - 130	3	20
2,2-Dichloropropane	25.0	28.9		ug/L		116	69 - 139	6	20
1,1-Dichloropropene	25.0	23.9		ug/L		95	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	23.1		ug/L		92	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	21.7		ug/L		87	70 - 130	1	20
Ethylbenzene	25.0	22.7		ug/L		91	70 - 130	9	20
Hexachlorobutadiene	25.0	20.2		ug/L		81	76 - 145	13	20
2-Hexanone	25.0	27.3		ug/L		109	55 - 150	2	35
Iodomethane	25.0	26.2		ug/L		105	70 - 130	1	20
Isopropylbenzene	25.0	25.4		ug/L		101	88 - 141	8	20
4-Isopropyltoluene	25.0	23.1		ug/L		92	70 - 130	0	20
Methylene Chloride	25.0	25.3		ug/L		101	63 - 128	3	21
4-Methyl-2-pentanone (MIBK)	25.0	21.1		ug/L		85	64 - 142	8	25
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130	0	20
Naphthalene	25.0	22.4		ug/L		90	78 - 143	6	20
N-Propylbenzene	25.0	24.5		ug/L		98	70 - 130	10	20
Styrene	25.0	21.5		ug/L		86	70 - 130	8	20
1,1,1,2-Tetrachloroethane	25.0	22.8		ug/L		91	70 - 130	5	20
1,1,2,2-Tetrachloroethane	25.0	24.1		ug/L		96	70 - 130	12	20
Tetrachloroethene	25.0	25.1		ug/L		101	70 - 130	4	20
Toluene	25.0	21.9		ug/L		87	70 - 130	7	20
1,2,3-Trichlorobenzene	25.0	20.9		ug/L		84	79 - 139	6	20
1,2,4-Trichlorobenzene	25.0	21.7		ug/L		87	80 - 137	4	20
1,1,1-Trichloroethane	25.0	25.9		ug/L		103	71 - 131	2	20
1,1,2-Trichloroethane	25.0	22.6		ug/L		90	70 - 130	1	20
Trichloroethene	25.0	24.5		ug/L		98	70 - 130	1	20
Trichlorofluoromethane	25.0	25.3		ug/L		101	69 - 150	7	22
1,2,3-Trichloropropane	25.0	22.1		ug/L		88	70 - 130	12	20
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 130	1	20
Vinyl acetate	25.0	21.3		ug/L		85	67 - 148	5	22
Vinyl chloride	25.0	23.4		ug/L		94	65 - 137	0	20
Xylenes, Total	50.0	44.9		ug/L		90	70 - 130	2	20
Butadiene	25.0	25.5		ug/L		102	12 - 150	2	35
Hexane	25.0	25.8		ug/L		103	54 - 132	4	28
m-Xylene & p-Xylene	25.0	21.8		ug/L		87	70 - 130	2	20
o-Xylene	25.0	23.1		ug/L		92	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

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

Lab Sample ID: LCSD 550-59140/4
Matrix: Water
Analysis Batch: 59140

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 550-41486-C-1 MS
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	8.74	E4	ug/L		35	29 - 139
Benzene	ND	E8	25.0	23.4		ug/L		94	68 - 131
Bromobenzene	ND	E8	25.0	25.6		ug/L		103	70 - 130
Chlorobromomethane	ND	E8	25.0	22.4		ug/L		89	64 - 132
Dichlorobromomethane	ND	E8	25.0	23.2		ug/L		93	63 - 138
Bromoform	ND	E8	25.0	22.4		ug/L		90	60 - 128
Bromomethane	ND	E8	25.0	23.0		ug/L		92	47 - 144
2-Butanone (MEK)	ND	E8	25.0	20.6		ug/L		82	31 - 143
n-Butylbenzene	ND	E8	25.0	21.5		ug/L		86	69 - 140
sec-Butylbenzene	ND	E8	25.0	24.7		ug/L		99	72 - 136
Carbon disulfide	ND	E8	25.0	24.6		ug/L		98	45 - 150
Carbon tetrachloride	ND	E8	25.0	24.5		ug/L		98	65 - 147
Chlorobenzene	ND	E8	25.0	25.0		ug/L		100	70 - 130
Chloroethane	ND	E8	25.0	22.0		ug/L		88	57 - 139
Chloroform	0.29	E4	25.0	24.9		ug/L		98	63 - 131
Chloromethane	ND	E8	25.0	21.1		ug/L		84	47 - 134
2-Chlorotoluene	ND	E8	25.0	24.3		ug/L		97	71 - 131
4-Chlorotoluene	ND	E8	25.0	24.4		ug/L		98	70 - 130
Chlorodibromomethane	ND	E8	25.0	24.6		ug/L		98	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	22.8		ug/L		91	53 - 145
Ethylene Dibromide	ND	E8	25.0	25.4		ug/L		102	70 - 130
Dibromomethane	ND	E8	25.0	21.7		ug/L		87	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	23.8		ug/L		95	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	22.7		ug/L		91	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	23.2		ug/L		93	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	21.3		ug/L		85	40 - 148
1,1-Dichloroethane	ND	E8	25.0	23.6		ug/L		94	62 - 130
1,2-Dichloroethane	ND	E8	25.0	23.6		ug/L		94	54 - 147
1,1-Dichloroethene	ND	E8	25.0	25.9		ug/L		104	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	24.0		ug/L		96	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.5		ug/L		102	62 - 131
1,2-Dichloropropane	ND	E8	25.0	22.4		ug/L		90	68 - 126
1,3-Dichloropropane	ND	E8	25.0	23.5		ug/L		94	68 - 129
2,2-Dichloropropane	ND	E8	25.0	22.5		ug/L		90	60 - 146
1,1-Dichloropropene	ND	E8	25.0	25.4		ug/L		102	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	24.4		ug/L		98	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	21.2		ug/L		85	58 - 136
Ethylbenzene	ND	E8	25.0	23.8		ug/L		95	74 - 134
Hexachlorobutadiene	ND	E8	25.0	21.4		ug/L		86	69 - 150
2-Hexanone	ND	E8	25.0	18.9		ug/L		75	40 - 142

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

Lab Sample ID: 550-41486-C-1 MS
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND	E8	25.0	24.8		ug/L		99	53 - 150
Isopropylbenzene	ND	E8	25.0	25.6		ug/L		102	80 - 146
4-Isopropyltoluene	ND	E8	25.0	22.4		ug/L		90	70 - 133
Methylene Chloride	ND	E8	25.0	24.2		ug/L		97	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	22.8		ug/L		91	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	23.0		ug/L		92	67 - 138
Naphthalene	ND	E8	25.0	21.1		ug/L		85	67 - 146
N-Propylbenzene	ND	E8	25.0	24.7		ug/L		99	74 - 140
Styrene	ND	E8	25.0	21.7		ug/L		87	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	23.5		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	26.3		ug/L		105	63 - 137
Tetrachloroethene	ND	E8	25.0	27.0		ug/L		108	67 - 131
Toluene	ND	E8	25.0	22.2		ug/L		89	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	19.1		ug/L		76	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	20.1		ug/L		80	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	25.5		ug/L		102	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	23.2		ug/L		93	63 - 132
Trichloroethene	ND	E8	25.0	24.4		ug/L		98	66 - 132
Trichlorofluoromethane	ND	E8	25.0	24.9		ug/L		100	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	24.4		ug/L		98	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	23.6		ug/L		95	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	24.4		ug/L		98	66 - 137
Vinyl acetate	ND	E8	25.0	22.3		ug/L		89	47 - 150
Vinyl chloride	ND	E8	25.0	22.3		ug/L		89	55 - 146
Xylenes, Total	ND	E8	50.0	47.0		ug/L		94	68 - 131
Butadiene	ND	E8	25.0	25.1		ug/L		100	10 - 150
Hexane	ND	E8	25.0	25.0		ug/L		100	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	22.9		ug/L		92	58 - 138
o-Xylene	ND	E8	25.0	24.1		ug/L		96	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 550-41486-C-1 MSD
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	7.60	E4	ug/L		30	29 - 139	14	35
Benzene	ND	E8	25.0	22.2		ug/L		89	68 - 131	5	32
Bromobenzene	ND	E8	25.0	25.5		ug/L		102	70 - 130	0	28
Chlorobromomethane	ND	E8	25.0	22.8		ug/L		91	64 - 132	2	35
Dichlorobromomethane	ND	E8	25.0	24.1		ug/L		96	63 - 138	4	31
Bromoform	ND	E8	25.0	23.9		ug/L		95	60 - 128	6	31
Bromomethane	ND	E8	25.0	24.3		ug/L		97	47 - 144	6	35
2-Butanone (MEK)	ND	E8	25.0	22.9		ug/L		91	31 - 143	11	35

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

Lab Sample ID: 550-41486-C-1 MSD
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene	ND	E8	25.0	22.9		ug/L		92	69 - 140	7	32
sec-Butylbenzene	ND	E8	25.0	25.2		ug/L		101	72 - 136	2	33
Carbon disulfide	ND	E8	25.0	23.9		ug/L		95	45 - 150	3	35
Carbon tetrachloride	ND	E8	25.0	25.3		ug/L		101	65 - 147	3	35
Chlorobenzene	ND	E8	25.0	23.9		ug/L		96	70 - 130	4	30
Chloroethane	ND	E8	25.0	23.1		ug/L		92	57 - 139	5	35
Chloroform	0.29	E4	25.0	24.6		ug/L		97	63 - 131	1	33
Chloromethane	ND	E8	25.0	21.7		ug/L		87	47 - 134	3	35
2-Chlorotoluene	ND	E8	25.0	25.2		ug/L		101	71 - 131	4	29
4-Chlorotoluene	ND	E8	25.0	26.0		ug/L		104	70 - 130	6	28
Chlorodibromomethane	ND	E8	25.0	22.7		ug/L		91	65 - 134	8	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	23.4		ug/L		93	53 - 145	2	35
Ethylene Dibromide	ND	E8	25.0	24.1		ug/L		96	70 - 130	5	33
Dibromomethane	ND	E8	25.0	22.2		ug/L		89	66 - 136	2	35
1,2-Dichlorobenzene	ND	E8	25.0	24.5		ug/L		98	70 - 130	3	27
1,3-Dichlorobenzene	ND	E8	25.0	24.2		ug/L		97	70 - 130	6	28
1,4-Dichlorobenzene	ND	E8	25.0	23.8		ug/L		95	70 - 130	2	26
Dichlorodifluoromethane	ND	E8	25.0	21.8		ug/L		87	40 - 148	3	35
1,1-Dichloroethane	ND	E8	25.0	23.1		ug/L		93	62 - 130	2	34
1,2-Dichloroethane	ND	E8	25.0	23.7		ug/L		95	54 - 147	1	35
1,1-Dichloroethene	ND	E8	25.0	24.7		ug/L		99	57 - 137	5	35
cis-1,2-Dichloroethene	ND	E8	25.0	24.7		ug/L		99	65 - 127	3	34
trans-1,2-Dichloroethene	ND	E8	25.0	24.7		ug/L		99	62 - 131	3	35
1,2-Dichloropropane	ND	E8	25.0	23.2		ug/L		93	68 - 126	4	32
1,3-Dichloropropane	ND	E8	25.0	23.5		ug/L		94	68 - 129	0	33
2,2-Dichloropropane	ND	E8	25.0	24.0		ug/L		96	60 - 146	7	35
1,1-Dichloropropene	ND	E8	25.0	24.5		ug/L		98	64 - 134	4	34
cis-1,3-Dichloropropene	ND	E8	25.0	21.6		ug/L		87	63 - 135	12	35
trans-1,3-Dichloropropene	ND	E8	25.0	21.6		ug/L		87	58 - 136	2	35
Ethylbenzene	ND	E8	25.0	22.9		ug/L		92	74 - 134	4	32
Hexachlorobutadiene	ND	E8	25.0	22.9		ug/L		92	69 - 150	7	32
2-Hexanone	ND	E8	25.0	17.5		ug/L		70	40 - 142	7	35
Iodomethane	ND	E8	25.0	24.6		ug/L		98	53 - 150	1	35
Isopropylbenzene	ND	E8	25.0	26.5		ug/L		106	80 - 146	4	32
4-Isopropyltoluene	ND	E8	25.0	23.4		ug/L		94	70 - 133	4	32
Methylene Chloride	ND	E8	25.0	23.4		ug/L		94	55 - 133	3	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	21.4		ug/L		85	52 - 143	6	35
Methyl tert-butyl ether	ND	E8	25.0	24.2		ug/L		97	67 - 138	5	21
Naphthalene	ND	E8	25.0	23.5		ug/L		94	67 - 146	10	29
N-Propylbenzene	ND	E8	25.0	25.3		ug/L		101	74 - 140	2	32
Styrene	ND	E8	25.0	22.9		ug/L		92	43 - 144	5	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	21.4		ug/L		86	70 - 130	9	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.2		ug/L		109	63 - 137	3	32
Tetrachloroethene	ND	E8	25.0	23.6		ug/L		95	67 - 131	13	31
Toluene	ND	E8	25.0	23.4		ug/L		93	65 - 138	5	33
1,2,3-Trichlorobenzene	ND	E8	25.0	21.0		ug/L		84	74 - 139	9	26
1,2,4-Trichlorobenzene	ND	E8	25.0	21.0		ug/L		84	74 - 138	4	26
1,1,1-Trichloroethane	ND	E8	25.0	24.8		ug/L		99	64 - 138	3	35

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

Lab Sample ID: 550-41486-C-1 MSD
Matrix: Water
Analysis Batch: 59140

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND	E8	25.0	23.8		ug/L		95	63 - 132	2	35
Trichloroethene	ND	E8	25.0	24.5		ug/L		98	66 - 132	0	29
Trichlorofluoromethane	ND	E8	25.0	26.6		ug/L		107	62 - 150	7	35
1,2,3-Trichloropropane	ND	E8	25.0	25.0		ug/L		100	68 - 130	2	32
1,2,4-Trimethylbenzene	ND	E8	25.0	24.1		ug/L		97	63 - 135	2	31
1,3,5-Trimethylbenzene	ND	E8	25.0	25.5		ug/L		102	66 - 137	4	30
Vinyl acetate	ND	E8	25.0	21.5		ug/L		86	47 - 150	4	35
Vinyl chloride	ND	E8	25.0	23.5		ug/L		94	55 - 146	5	35
Xylenes, Total	ND	E8	50.0	45.1		ug/L		90	68 - 131	4	31
Butadiene	ND	E8	25.0	25.6		ug/L		102	10 - 150	2	35
Hexane	ND	E8	25.0	23.6		ug/L		94	46 - 139	6	35
m-Xylene & p-Xylene	ND	E8	25.0	21.6		ug/L		86	58 - 138	6	29
o-Xylene	ND	E8	25.0	23.5		ug/L		94	66 - 137	2	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: MB 550-59162/6
Matrix: Water
Analysis Batch: 59162

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/21/15 20:47	1
Benzene	ND	E8	0.50	0.12	ug/L			03/21/15 20:47	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 20:47	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/21/15 20:47	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/21/15 20:47	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/21/15 20:47	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/21/15 20:47	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/21/15 20:47	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 20:47	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/21/15 20:47	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 20:47	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/21/15 20:47	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/21/15 20:47	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 20:47	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/21/15 20:47	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/21/15 20:47	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/21/15 20:47	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/21/15 20:47	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/21/15 20:47	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/21/15 20:47	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/21/15 20:47	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/21/15 20:47	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/21/15 20:47	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/21/15 20:47	1

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

Lab Sample ID: MB 550-59162/6
Matrix: Water
Analysis Batch: 59162

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/21/15 20:47	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/21/15 20:47	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 20:47	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/21/15 20:47	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 20:47	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/21/15 20:47	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/21/15 20:47	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/21/15 20:47	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 20:47	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/21/15 20:47	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/21/15 20:47	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/21/15 20:47	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/21/15 20:47	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/21/15 20:47	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/21/15 20:47	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/21/15 20:47	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/21/15 20:47	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/21/15 20:47	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/21/15 20:47	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/21/15 20:47	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/21/15 20:47	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/21/15 20:47	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/21/15 20:47	1
Naphthalene	0.735	E4	2.5	0.51	ug/L			03/21/15 20:47	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 20:47	1
Styrene	ND	E8	0.50	0.17	ug/L			03/21/15 20:47	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/21/15 20:47	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/21/15 20:47	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/21/15 20:47	1
Toluene	ND	E8	0.50	0.28	ug/L			03/21/15 20:47	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/21/15 20:47	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/21/15 20:47	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/21/15 20:47	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/21/15 20:47	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/21/15 20:47	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/21/15 20:47	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/21/15 20:47	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/21/15 20:47	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/21/15 20:47	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/21/15 20:47	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/21/15 20:47	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/21/15 20:47	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/21/15 20:47	1
Hexane	ND	E8	2.0	1.6	ug/L			03/21/15 20:47	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/21/15 20:47	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/21/15 20:47*	*1*

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

Lab Sample ID: MB 550-59162/6
Matrix: Water
Analysis Batch: 59162

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

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Dicyclopentadiene TIC	ND	E8 T4	ug/L			77-73-6		03/21/15 20:47	1
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/21/15 20:47	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/21/15 20:47	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/21/15 20:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		70 - 130		03/21/15 20:47	1
Toluene-d8 (Surr)	94		70 - 130		03/21/15 20:47	1
4-Bromofluorobenzene (Surr)	85		70 - 130		03/21/15 20:47	1

Lab Sample ID: LCS 550-59162/3
Matrix: Water
Analysis Batch: 59162

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	33.3		ug/L		133	38 - 150
Benzene	25.0	26.4		ug/L		106	70 - 130
Bromobenzene	25.0	28.6		ug/L		114	70 - 130
Chlorobromomethane	25.0	23.8		ug/L		95	70 - 130
Dichlorobromomethane	25.0	27.7		ug/L		111	70 - 130
Bromoform	25.0	25.4		ug/L		102	69 - 129
Bromomethane	25.0	27.7		ug/L		111	57 - 138
2-Butanone (MEK)	25.0	30.6		ug/L		122	53 - 150
n-Butylbenzene	25.0	25.3		ug/L		101	70 - 130
sec-Butylbenzene	25.0	29.0		ug/L		116	70 - 130
Carbon disulfide	25.0	26.9		ug/L		108	64 - 145
Carbon tetrachloride	25.0	26.7		ug/L		107	70 - 143
Chlorobenzene	25.0	26.7		ug/L		107	70 - 130
Chloroethane	25.0	23.9		ug/L		96	66 - 131
Chloroform	25.0	27.2		ug/L		109	70 - 130
Chloromethane	25.0	23.9		ug/L		96	56 - 129
2-Chlorotoluene	25.0	28.6		ug/L		115	70 - 130
4-Chlorotoluene	25.0	30.1		ug/L		120	70 - 130
Chlorodibromomethane	25.0	25.1		ug/L		100	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	28.0		ug/L		112	63 - 146
Ethylene Dibromide	25.0	27.0		ug/L		108	70 - 130
Dibromomethane	25.0	23.7		ug/L		95	70 - 130
1,2-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130
1,3-Dichlorobenzene	25.0	27.5		ug/L		110	70 - 130
1,4-Dichlorobenzene	25.0	27.7		ug/L		111	70 - 130
Dichlorodifluoromethane	25.0	21.8		ug/L		87	46 - 144
1,1-Dichloroethane	25.0	26.4		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	25.4		ug/L		102	66 - 139
1,1-Dichloroethene	25.0	26.3		ug/L		105	63 - 131
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	70 - 130
trans-1,2-Dichloroethene	25.0	27.5		ug/L		110	69 - 127
1,2-Dichloropropane	25.0	26.9		ug/L		108	70 - 130

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

Lab Sample ID: LCS 550-59162/3
Matrix: Water
Analysis Batch: 59162

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
2,2-Dichloropropane	25.0	28.3		ug/L		113	69 - 139
1,1-Dichloropropene	25.0	27.6		ug/L		110	70 - 130
cis-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 130
trans-1,3-Dichloropropene	25.0	23.9		ug/L		96	70 - 130
Ethylbenzene	25.0	27.2		ug/L		109	70 - 130
Hexachlorobutadiene	25.0	23.9		ug/L		96	76 - 145
2-Hexanone	25.0	29.3		ug/L		117	55 - 150
Iodomethane	25.0	28.0		ug/L		112	70 - 130
Isopropylbenzene	25.0	29.4		ug/L		118	88 - 141
4-Isopropyltoluene	25.0	26.5		ug/L		106	70 - 130
Methylene Chloride	25.0	26.4		ug/L		106	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	24.5		ug/L		98	64 - 142
Methyl tert-butyl ether	25.0	26.6		ug/L		106	70 - 130
Naphthalene	25.0	23.9		ug/L		95	78 - 143
N-Propylbenzene	25.0	28.9		ug/L		116	70 - 130
Styrene	25.0	24.9		ug/L		100	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.7		ug/L		103	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.7		ug/L		115	70 - 130
Tetrachloroethene	25.0	28.2		ug/L		113	70 - 130
Toluene	25.0	25.9		ug/L		104	70 - 130
1,2,3-Trichlorobenzene	25.0	21.5		ug/L		86	79 - 139
1,2,4-Trichlorobenzene	25.0	23.0		ug/L		92	80 - 137
1,1,1-Trichloroethane	25.0	27.7		ug/L		111	71 - 131
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
Trichloroethene	25.0	26.8		ug/L		107	70 - 130
Trichlorofluoromethane	25.0	26.0		ug/L		104	69 - 150
1,2,3-Trichloropropane	25.0	22.6		ug/L		90	70 - 130
1,2,4-Trimethylbenzene	25.0	28.9		ug/L		116	70 - 130
1,3,5-Trimethylbenzene	25.0	28.7		ug/L		115	70 - 130
Vinyl acetate	25.0	24.4		ug/L		98	67 - 148
Vinyl chloride	25.0	24.4		ug/L		98	65 - 137
Xylenes, Total	50.0	53.6		ug/L		107	70 - 130
Butadiene	25.0	25.3		ug/L		101	12 - 150
Hexane	25.0	27.3		ug/L		109	54 - 132
m-Xylene & p-Xylene	25.0	26.6		ug/L		106	70 - 130
o-Xylene	25.0	27.0		ug/L		108	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: LCSD 550-59162/4
Matrix: Water
Analysis Batch: 59162

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	28.6		ug/L		115	38 - 150	15	35
Benzene	25.0	25.3		ug/L		101	70 - 130	4	20
Bromobenzene	25.0	27.7		ug/L		111	70 - 130	3	20
Chlorobromomethane	25.0	24.0		ug/L		96	70 - 130	1	20
Dichlorobromomethane	25.0	25.9		ug/L		104	70 - 130	7	20
Bromoform	25.0	23.9		ug/L		96	69 - 129	6	20
Bromomethane	25.0	27.8		ug/L		111	57 - 138	1	20
2-Butanone (MEK)	25.0	32.3		ug/L		129	53 - 150	5	35
n-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	0	20
sec-Butylbenzene	25.0	28.1		ug/L		112	70 - 130	3	20
Carbon disulfide	25.0	26.2		ug/L		105	64 - 145	3	33
Carbon tetrachloride	25.0	25.8		ug/L		103	70 - 143	3	20
Chlorobenzene	25.0	25.6		ug/L		102	70 - 130	4	20
Chloroethane	25.0	23.4		ug/L		94	66 - 131	2	20
Chloroform	25.0	26.8		ug/L		107	70 - 130	2	20
Chloromethane	25.0	23.1		ug/L		93	56 - 129	3	20
2-Chlorotoluene	25.0	26.9		ug/L		108	70 - 130	6	20
4-Chlorotoluene	25.0	29.2		ug/L		117	70 - 130	3	20
Chlorodibromomethane	25.0	25.1		ug/L		100	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	24.1		ug/L		97	63 - 146	15	22
Ethylene Dibromide	25.0	25.8		ug/L		103	70 - 130	5	20
Dibromomethane	25.0	23.5		ug/L		94	70 - 130	1	20
1,2-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130	1	20
1,3-Dichlorobenzene	25.0	27.1		ug/L		108	70 - 130	2	20
1,4-Dichlorobenzene	25.0	27.6		ug/L		111	70 - 130	0	20
Dichlorodifluoromethane	25.0	22.1		ug/L		88	46 - 144	1	23
1,1-Dichloroethane	25.0	26.8		ug/L		107	70 - 130	1	20
1,2-Dichloroethane	25.0	25.3		ug/L		101	66 - 139	1	20
1,1-Dichloroethene	25.0	27.3		ug/L		109	63 - 131	4	22
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	70 - 130	4	20
trans-1,2-Dichloroethene	25.0	27.4		ug/L		109	69 - 127	1	20
1,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130	7	20
1,3-Dichloropropane	25.0	23.8		ug/L		95	70 - 130	9	20
2,2-Dichloropropane	25.0	28.1		ug/L		112	69 - 139	1	20
1,1-Dichloropropene	25.0	25.6		ug/L		102	70 - 130	8	20
cis-1,3-Dichloropropene	25.0	24.8		ug/L		99	70 - 130	9	20
trans-1,3-Dichloropropene	25.0	23.2		ug/L		93	70 - 130	3	20
Ethylbenzene	25.0	24.4		ug/L		97	70 - 130	11	20
Hexachlorobutadiene	25.0	23.1		ug/L		92	76 - 145	4	20
2-Hexanone	25.0	21.6		ug/L		86	55 - 150	30	35
Iodomethane	25.0	27.4		ug/L		110	70 - 130	2	20
Isopropylbenzene	25.0	28.8		ug/L		115	88 - 141	2	20
4-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 130	3	20
Methylene Chloride	25.0	27.0		ug/L		108	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	20.9		ug/L		84	64 - 142	16	25
Methyl tert-butyl ether	25.0	26.0		ug/L		104	70 - 130	2	20
Naphthalene	25.0	23.7		ug/L		95	78 - 143	1	20
N-Propylbenzene	25.0	28.6		ug/L		115	70 - 130	1	20

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

Lab Sample ID: LCSD 550-59162/4
Matrix: Water
Analysis Batch: 59162

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Styrene	25.0	24.4		ug/L		97	70 - 130	2	20
1,1,1,2-Tetrachloroethane	25.0	24.6		ug/L		98	70 - 130	5	20
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	70 - 130	2	20
Tetrachloroethene	25.0	24.5		ug/L		98	70 - 130	14	20
Toluene	25.0	23.5		ug/L		94	70 - 130	10	20
1,2,3-Trichlorobenzene	25.0	22.4		ug/L		89	79 - 139	4	20
1,2,4-Trichlorobenzene	25.0	23.4		ug/L		94	80 - 137	2	20
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	71 - 131	3	20
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	70 - 130	0	20
Trichloroethene	25.0	27.0		ug/L		108	70 - 130	1	20
Trichlorofluoromethane	25.0	26.2		ug/L		105	69 - 150	1	22
1,2,3-Trichloropropane	25.0	24.9		ug/L		99	70 - 130	10	20
1,2,4-Trimethylbenzene	25.0	27.5		ug/L		110	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	2	20
Vinyl acetate	25.0	24.5		ug/L		98	67 - 148	1	22
Vinyl chloride	25.0	23.9		ug/L		96	65 - 137	2	20
Xylenes, Total	50.0	47.9		ug/L		96	70 - 130	11	20
Butadiene	25.0	24.8		ug/L		99	12 - 150	2	35
Hexane	25.0	28.1		ug/L		112	54 - 132	3	28
m-Xylene & p-Xylene	25.0	23.5		ug/L		94	70 - 130	12	20
o-Xylene	25.0	24.4		ug/L		98	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 550-41581-F-1 MS
Matrix: Water
Analysis Batch: 59162

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	360	N1 E2 E6	25.0	34.2	M3	ug/L		-1292	29 - 139
Benzene	210	N1 E2 E6	25.0	44.0	M3	ug/L		-654	68 - 131
Bromobenzene	ND	E8 N1 E6	25.0	32.7	M1	ug/L		131	70 - 130
Chlorobromomethane	ND	E8 N1 E6	25.0	35.1	M1	ug/L		140	64 - 132
Dichlorobromomethane	2.1	N1 E6	25.0	34.9		ug/L		131	63 - 138
Bromoform	ND	E8 N1 E6	25.0	29.8		ug/L		119	60 - 128
Bromomethane	ND	E8 N1 E6	25.0	36.7	M1	ug/L		147	47 - 144
2-Butanone (MEK)	11	N1 E6	25.0	33.6		ug/L		91	31 - 143
n-Butylbenzene	ND	E8 N1 E6	25.0	30.9		ug/L		123	69 - 140
sec-Butylbenzene	ND	E8 N1 E6	25.0	32.0		ug/L		128	72 - 136
Carbon disulfide	ND	E8 N1 E6	25.0	36.7		ug/L		147	45 - 150
Carbon tetrachloride	ND	E8 N1 E6	25.0	32.4		ug/L		130	65 - 147
Chlorobenzene	ND	E8 N1 E6	25.0	33.5	M1	ug/L		134	70 - 130
Chloroethane	ND	E8 N1 E6	25.0	33.0		ug/L		132	57 - 139
Chloroform	50	N1 E6	25.0	41.0	M2	ug/L		-34	63 - 131
Chloromethane	ND	E8 N1 E6	25.0	30.1		ug/L		120	47 - 134

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

Lab Sample ID: 550-41581-F-1 MS
Matrix: Water
Analysis Batch: 59162

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	ND	E8 N1 E6	25.0	32.7		ug/L		131	71 - 131
4-Chlorotoluene	ND	E8 N1 E6	25.0	33.0	M1	ug/L		132	70 - 130
Chlorodibromomethane	ND	E8 N1 E6	25.0	31.5		ug/L		126	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8 N1 E6	25.0	33.0		ug/L		132	53 - 145
Ethylene Dibromide	ND	E8 N1 E6	25.0	33.1	M1	ug/L		132	70 - 130
Dibromomethane	ND	E8 N1 E6	25.0	30.4		ug/L		121	66 - 136
1,2-Dichlorobenzene	ND	E8 N1 E6	25.0	30.7		ug/L		123	70 - 130
1,3-Dichlorobenzene	ND	E8 N1 E6	25.0	31.1		ug/L		124	70 - 130
1,4-Dichlorobenzene	ND	E8 N1 E6	25.0	30.9		ug/L		123	70 - 130
Dichlorodifluoromethane	ND	E8 N1 E6	25.0	29.1		ug/L		117	40 - 148
1,1-Dichloroethane	130	N1 E6	25.0	42.9	M3	ug/L		-330	62 - 130
1,2-Dichloroethane	11	N1 E6	25.0	37.6		ug/L		104	54 - 147
1,1-Dichloroethene	110	N1 E6	25.0	45.2	M3	ug/L		-245	57 - 137
cis-1,2-Dichloroethene	20	N1 E6	25.0	38.3		ug/L		75	65 - 127
trans-1,2-Dichloroethene	ND	E8 N1 E6	25.0	37.4	M1	ug/L		150	62 - 131
1,2-Dichloropropane	ND	E8 N1 E6	25.0	32.7	M1	ug/L		131	68 - 126
1,3-Dichloropropane	ND	E8 N1 E6	25.0	33.0	M1	ug/L		132	68 - 129
2,2-Dichloropropane	ND	E8 N1 E6	25.0	38.1	M1	ug/L		152	60 - 146
1,1-Dichloropropene	ND	E8 N1 E6	25.0	34.6	M1	ug/L		138	64 - 134
cis-1,3-Dichloropropene	ND	E8 N1 E6	25.0	33.5		ug/L		134	63 - 135
trans-1,3-Dichloropropene	ND	E8 N1 E6	25.0	31.8		ug/L		127	58 - 136
Ethylbenzene	90	N1 E6	25.0	38.7	M2	ug/L		-205	74 - 134
Hexachlorobutadiene	ND	E8 N1 E6	25.0	27.8		ug/L		111	69 - 150
2-Hexanone	ND	E8 N1 E6	25.0	24.0		ug/L		96	40 - 142
Iodomethane	ND	E8 N1 E6	25.0	38.5	M1	ug/L		154	53 - 150
Isopropylbenzene	2.7	N1 E6	25.0	34.9		ug/L		129	80 - 146
4-Isopropyltoluene	ND	E8 N1 E6	25.0	29.8		ug/L		119	70 - 133
Methylene Chloride	ND	E8 N1 E6	25.0	38.1	M1	ug/L		152	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8 N1 E6	25.0	30.1		ug/L		120	52 - 143
Methyl tert-butyl ether	4.6	N1 E6	25.0	37.8		ug/L		133	67 - 138
Naphthalene	6.8	N1 B1 E6	25.0	27.5		ug/L		83	67 - 146
N-Propylbenzene	4.3	N1 E6	25.0	33.7		ug/L		118	74 - 140
Styrene	ND	E8 N1 E6	25.0	30.6		ug/L		123	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8 N1 E6	25.0	30.4		ug/L		122	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8 N1 E6	25.0	33.7		ug/L		135	63 - 137
Tetrachloroethene	40	N1 E6	25.0	33.6	M2	ug/L		-24	67 - 131
Toluene	1800	N1 E2 E6	25.0	128	M3	ug/L		-6492	65 - 138
1,2,3-Trichlorobenzene	ND	E8 N1 E6	25.0	27.3		ug/L		109	74 - 139
1,2,4-Trichlorobenzene	ND	E8 N1 E6	25.0	28.0		ug/L		112	74 - 138
1,1,1-Trichloroethane	98	N1 E6	25.0	43.2	M2	ug/L		-217	64 - 138
1,1,2-Trichloroethane	17	N1 E6	25.0	35.0		ug/L		72	63 - 132
Trichloroethene	120	N1 E6	25.0	40.8	M3	ug/L		-322	66 - 132
Trichlorofluoromethane	ND	E8 N1 E6	25.0	39.5	M1	ug/L		158	62 - 150
1,2,3-Trichloropropane	ND	E8 N1 E6	25.0	29.5		ug/L		118	68 - 130
1,2,4-Trimethylbenzene	ND	E8 N1 E6	25.0	32.3		ug/L		129	63 - 135
1,3,5-Trimethylbenzene	ND	E8 N1 E6	25.0	33.6		ug/L		134	66 - 137
Vinyl acetate	ND	E8 N1 E6	25.0	32.0		ug/L		128	47 - 150
Vinyl chloride	ND	E8 N1 E6	25.0	38.6	M1	ug/L		154	55 - 146

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

Lab Sample ID: 550-41581-F-1 MS
Matrix: Water
Analysis Batch: 59162

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	9.7	N1	50.0	62.8		ug/L		106	68 - 131
Butadiene			25.0	23.3		ug/L			
Hexane			25.0	36.5		ug/L			
m-Xylene & p-Xylene	9.7	N1 E6	25.0	29.6		ug/L		79	58 - 138
o-Xylene	ND	E8 N1 E6	25.0	33.2		ug/L		133	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*114*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 550-41581-F-1 MSD
Matrix: Water
Analysis Batch: 59162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	360	N1 E2 E6	25.0	33.4	M3	ug/L		-1295	29 - 139	2	35
Benzene	210	N1 E2 E6	25.0	48.1	M3	ug/L		-637	68 - 131	9	32
Bromobenzene	ND	E8 N1 E6	25.0	35.8	M1	ug/L		143	70 - 130	9	28
Chlorobromomethane	ND	E8 N1 E6	25.0	38.2	M1	ug/L		153	64 - 132	9	35
Dichlorobromomethane	2.1	N1 E6	25.0	38.1	M1	ug/L		144	63 - 138	9	31
Bromoform	ND	E8 N1 E6	25.0	32.3	M1	ug/L		129	60 - 128	8	31
Bromomethane	ND	E8 N1 E6	25.0	36.8	M1	ug/L		147	47 - 144	0	35
2-Butanone (MEK)	11	N1 E6	25.0	38.4		ug/L		110	31 - 143	13	35
n-Butylbenzene	ND	E8 N1 E6	25.0	31.2		ug/L		125	69 - 140	1	32
sec-Butylbenzene	ND	E8 N1 E6	25.0	30.0		ug/L		120	72 - 136	7	33
Carbon disulfide	ND	E8 N1 E6	25.0	37.9	M1	ug/L		152	45 - 150	3	35
Carbon tetrachloride	ND	E8 N1 E6	25.0	35.6		ug/L		142	65 - 147	9	35
Chlorobenzene	ND	E8 N1 E6	25.0	31.8		ug/L		127	70 - 130	5	30
Chloroethane	ND	E8 N1 E6	25.0	32.4		ug/L		130	57 - 139	2	35
Chloroform	50	N1 E6	25.0	42.8	M2	ug/L		-27	63 - 131	4	33
Chloromethane	ND	E8 N1 E6	25.0	31.7		ug/L		127	47 - 134	5	35
2-Chlorotoluene	ND	E8 N1 E6	25.0	31.6		ug/L		127	71 - 131	3	29
4-Chlorotoluene	ND	E8 N1 E6	25.0	34.1	M1	ug/L		137	70 - 130	3	28
Chlorodibromomethane	ND	E8 N1 E6	25.0	33.6		ug/L		134	65 - 134	7	33
1,2-Dibromo-3-Chloropropane	ND	E8 N1 E6	25.0	32.0		ug/L		128	53 - 145	3	35
Ethylene Dibromide	ND	E8 N1 E6	25.0	35.8	M1	ug/L		143	70 - 130	8	33
Dibromomethane	ND	E8 N1 E6	25.0	34.1	M1	ug/L		137	66 - 136	12	35
1,2-Dichlorobenzene	ND	E8 N1 E6	25.0	35.8	M1	ug/L		143	70 - 130	15	27
1,3-Dichlorobenzene	ND	E8 N1 E6	25.0	32.1		ug/L		128	70 - 130	3	28
1,4-Dichlorobenzene	ND	E8 N1 E6	25.0	32.5		ug/L		130	70 - 130	5	26
Dichlorodifluoromethane	ND	E8 N1 E6	25.0	28.3		ug/L		113	40 - 148	3	35
1,1-Dichloroethane	130	N1 E6	25.0	45.3	M3	ug/L		-320	62 - 130	5	34
1,2-Dichloroethane	11	N1 E6	25.0	40.5		ug/L		116	54 - 147	8	35
1,1-Dichloroethene	110	N1 E6	25.0	43.7	M3	ug/L		-251	57 - 137	3	35
cis-1,2-Dichloroethene	20	N1 E6	25.0	39.2		ug/L		79	65 - 127	2	34
trans-1,2-Dichloroethene	ND	E8 N1 E6	25.0	40.1	M1	ug/L		161	62 - 131	7	35
1,2-Dichloropropane	ND	E8 N1 E6	25.0	37.2	M1	ug/L		149	68 - 126	13	32

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

Lab Sample ID: 550-41581-F-1 MSD
Matrix: Water
Analysis Batch: 59162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichloropropane	ND	E8 N1 E6	25.0	34.0	M1	ug/L		136	68 - 129	3	33
2,2-Dichloropropane	ND	E8 N1 E6	25.0	38.1	M1	ug/L		152	60 - 146	0	35
1,1-Dichloropropene	ND	E8 N1 E6	25.0	34.9	M1	ug/L		140	64 - 134	1	34
cis-1,3-Dichloropropene	ND	E8 N1 E6	25.0	34.0	M1	ug/L		136	63 - 135	2	35
trans-1,3-Dichloropropene	ND	E8 N1 E6	25.0	35.4	M1	ug/L		142	58 - 136	11	35
Ethylbenzene	90	N1 E6	25.0	37.6	M2	ug/L		-209	74 - 134	3	32
Hexachlorobutadiene	ND	E8 N1 E6	25.0	31.0		ug/L		124	69 - 150	11	32
2-Hexanone	ND	E8 N1 E6	25.0	25.8		ug/L		103	40 - 142	7	35
Iodomethane	ND	E8 N1 E6	25.0	38.7	M1	ug/L		155	53 - 150	1	35
Isopropylbenzene	2.7	N1 E6	25.0	36.1		ug/L		134	80 - 146	3	32
4-Isopropyltoluene	ND	E8 N1 E6	25.0	30.0		ug/L		120	70 - 133	1	32
Methylene Chloride	ND	E8 N1 E6	25.0	37.7	M1	ug/L		151	55 - 133	1	35
4-Methyl-2-pentanone (MIBK)	ND	E8 N1 E6	25.0	36.5	M1	ug/L		146	52 - 143	19	35
Methyl tert-butyl ether	4.6	N1 E6	25.0	42.2	M1	ug/L		150	67 - 138	11	21
Naphthalene	6.8	N1 B1 E6	25.0	33.3		ug/L		106	67 - 146	19	29
N-Propylbenzene	4.3	N1 E6	25.0	34.9		ug/L		122	74 - 140	4	32
Styrene	ND	E8 N1 E6	25.0	31.2		ug/L		125	43 - 144	2	35
1,1,1,2-Tetrachloroethane	ND	E8 N1 E6	25.0	30.8		ug/L		123	70 - 130	1	30
1,1,2,2-Tetrachloroethane	ND	E8 N1 E6	25.0	37.0	M1	ug/L		148	63 - 137	9	32
Tetrachloroethene	40	N1 E6	25.0	34.2	M2	ug/L		-22	67 - 131	2	31
Toluene	1800	N1 E2 E6	25.0	139	M3	ug/L		-6446	65 - 138	9	33
1,2,3-Trichlorobenzene	ND	E8 N1 E6	25.0	30.1		ug/L		120	74 - 139	9	26
1,2,4-Trichlorobenzene	ND	E8 N1 E6	25.0	32.4		ug/L		130	74 - 138	15	26
1,1,1-Trichloroethane	98	N1 E6	25.0	45.0	M2	ug/L		-210	64 - 138	4	35
1,1,2-Trichloroethane	17	N1 E6	25.0	40.0		ug/L		92	63 - 132	13	35
Trichloroethene	120	N1 E6	25.0	43.9	M3	ug/L		-310	66 - 132	7	29
Trichlorofluoromethane	ND	E8 N1 E6	25.0	38.9	M1	ug/L		156	62 - 150	2	35
1,2,3-Trichloropropane	ND	E8 N1 E6	25.0	36.6	M1	ug/L		146	68 - 130	21	32
1,2,4-Trimethylbenzene	ND	E8 N1 E6	25.0	32.6		ug/L		130	63 - 135	1	31
1,3,5-Trimethylbenzene	ND	E8 N1 E6	25.0	33.2		ug/L		133	66 - 137	1	30
Vinyl acetate	ND	E8 N1 E6	25.0	38.1	M1	ug/L		152	47 - 150	17	35
Vinyl chloride	ND	E8 N1 E6	25.0	38.8	M1	ug/L		155	55 - 146	1	35
Xylenes, Total	9.7	N1	50.0	64.2		ug/L		109	68 - 131	2	31
Butadiene			25.0	24.3		ug/L					
Hexane			25.0	39.7		ug/L					
m-Xylene & p-Xylene	9.7	N1 E6	25.0	30.4		ug/L		83	58 - 138	3	29
o-Xylene	ND	E8 N1 E6	25.0	33.8		ug/L		135	66 - 137	2	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*114*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*

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

Lab Sample ID: MB 550-59202/8
Matrix: Water
Analysis Batch: 59202

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/23/15 13:33	1
Benzene	ND	E8	0.50	0.12	ug/L			03/23/15 13:33	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/23/15 13:33	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/23/15 13:33	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/23/15 13:33	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/23/15 13:33	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/23/15 13:33	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/23/15 13:33	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 13:33	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/23/15 13:33	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/23/15 13:33	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/23/15 13:33	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/23/15 13:33	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/23/15 13:33	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/23/15 13:33	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/23/15 13:33	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/23/15 13:33	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/23/15 13:33	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/23/15 13:33	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/23/15 13:33	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/23/15 13:33	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/23/15 13:33	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/23/15 13:33	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/23/15 13:33	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/23/15 13:33	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/23/15 13:33	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/23/15 13:33	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/23/15 13:33	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/23/15 13:33	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/23/15 13:33	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/23/15 13:33	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/23/15 13:33	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/23/15 13:33	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/23/15 13:33	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/23/15 13:33	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/23/15 13:33	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/23/15 13:33	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/23/15 13:33	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/23/15 13:33	1
Hexachlorobutadiene	0.322	E4	1.0	0.28	ug/L			03/23/15 13:33	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/23/15 13:33	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/23/15 13:33	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/23/15 13:33	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/23/15 13:33	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/23/15 13:33	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/23/15 13:33	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/23/15 13:33	1
Naphthalene	1.04	E4	2.5	0.51	ug/L			03/23/15 13:33	1

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

Lab Sample ID: MB 550-59202/8
Matrix: Water
Analysis Batch: 59202

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 13:33	1
Styrene	ND	E8	0.50	0.17	ug/L			03/23/15 13:33	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/23/15 13:33	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/23/15 13:33	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/23/15 13:33	1
Toluene	ND	E8	0.50	0.28	ug/L			03/23/15 13:33	1
1,2,3-Trichlorobenzene	0.929	E4	1.0	0.45	ug/L			03/23/15 13:33	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/23/15 13:33	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/23/15 13:33	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/23/15 13:33	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/23/15 13:33	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/23/15 13:33	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/23/15 13:33	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/23/15 13:33	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/23/15 13:33	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/23/15 13:33	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/23/15 13:33	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/23/15 13:33	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/23/15 13:33	1
Hexane	ND	E8	2.0	1.6	ug/L			03/23/15 13:33	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/23/15 13:33*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/23/15 13:33*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/23/15 13:33*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/23/15 13:33*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/23/15 13:33*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*89*		*70 - 130*		*03/23/15 13:33*	*1*
Toluene-d8 (Surr)	*88*		*70 - 130*		*03/23/15 13:33*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*03/23/15 13:33*	*1*

Lab Sample ID: LCS 550-59202/6
Matrix: Water
Analysis Batch: 59202

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.7		ug/L		91	38 - 150
Benzene	25.0	24.5		ug/L		98	70 - 130
Bromobenzene	25.0	26.5		ug/L		106	70 - 130
Chlorobromomethane	25.0	29.4		ug/L		117	70 - 130
Dichlorobromomethane	25.0	25.6		ug/L		102	70 - 130
Bromoform	25.0	25.1		ug/L		100	69 - 129
Bromomethane	25.0	26.0		ug/L		104	57 - 138
2-Butanone (MEK)	25.0	26.4		ug/L		106	53 - 150
n-Butylbenzene	25.0	24.7		ug/L		99	70 - 130

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

Lab Sample ID: LCS 550-59202/6
Matrix: Water
Analysis Batch: 59202

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	25.0	23.1		ug/L		93	70 - 130
Carbon disulfide	25.0	24.1		ug/L		96	64 - 145
Carbon tetrachloride	25.0	26.3		ug/L		105	70 - 143
Chlorobenzene	25.0	26.3		ug/L		105	70 - 130
Chloroethane	25.0	24.0		ug/L		96	66 - 131
Chloroform	25.0	25.8		ug/L		103	70 - 130
Chloromethane	25.0	23.2		ug/L		93	56 - 129
2-Chlorotoluene	25.0	23.3		ug/L		93	70 - 130
4-Chlorotoluene	25.0	23.3		ug/L		93	70 - 130
Chlorodibromomethane	25.0	27.3		ug/L		109	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	29.3		ug/L		117	63 - 146
Ethylene Dibromide	25.0	26.9		ug/L		108	70 - 130
Dibromomethane	25.0	27.4		ug/L		110	70 - 130
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,3-Dichlorobenzene	25.0	26.6		ug/L		107	70 - 130
1,4-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	27.6		ug/L		110	46 - 144
1,1-Dichloroethane	25.0	24.8		ug/L		99	70 - 130
1,2-Dichloroethane	25.0	26.0		ug/L		104	66 - 139
1,1-Dichloroethene	25.0	24.4		ug/L		98	63 - 131
cis-1,2-Dichloroethene	25.0	26.1		ug/L		104	70 - 130
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	69 - 127
1,2-Dichloropropane	25.0	24.8		ug/L		99	70 - 130
1,3-Dichloropropane	25.0	26.9		ug/L		108	70 - 130
2,2-Dichloropropane	25.0	26.7		ug/L		107	69 - 139
1,1-Dichloropropene	25.0	24.9		ug/L		100	70 - 130
cis-1,3-Dichloropropene	25.0	25.2		ug/L		101	70 - 130
trans-1,3-Dichloropropene	25.0	26.3		ug/L		105	70 - 130
Ethylbenzene	25.0	24.4		ug/L		98	70 - 130
Hexachlorobutadiene	25.0	26.7		ug/L		107	76 - 145
2-Hexanone	25.0	23.3		ug/L		93	55 - 150
Iodomethane	25.0	28.0		ug/L		112	70 - 130
Isopropylbenzene	25.0	22.9		ug/L		92	88 - 141
4-Isopropyltoluene	25.0	25.3		ug/L		101	70 - 130
Methylene Chloride	25.0	21.2		ug/L		85	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.9		ug/L		96	64 - 142
Methyl tert-butyl ether	25.0	25.9		ug/L		104	70 - 130
Naphthalene	25.0	31.2		ug/L		125	78 - 143
N-Propylbenzene	25.0	23.0		ug/L		92	70 - 130
Styrene	25.0	25.1		ug/L		100	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		108	70 - 130
1,1,2,2-Tetrachloroethane	25.0	27.4		ug/L		110	70 - 130
Tetrachloroethene	25.0	25.9		ug/L		104	70 - 130
Toluene	25.0	24.6		ug/L		98	70 - 130
1,2,3-Trichlorobenzene	25.0	32.2		ug/L		129	79 - 139
1,2,4-Trichlorobenzene	25.0	29.9		ug/L		120	80 - 137
1,1,1-Trichloroethane	25.0	25.5		ug/L		102	71 - 131
1,1,2-Trichloroethane	25.0	27.0		ug/L		108	70 - 130

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

Lab Sample ID: LCS 550-59202/6
Matrix: Water
Analysis Batch: 59202

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	25.0	25.0		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	26.3		ug/L		105	69 - 150
1,2,3-Trichloropropane	25.0	26.9		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	25.0	23.8		ug/L		95	70 - 130
1,3,5-Trimethylbenzene	25.0	23.5		ug/L		94	70 - 130
Vinyl acetate	25.0	26.7		ug/L		107	67 - 148
Vinyl chloride	25.0	23.3		ug/L		93	65 - 137
Xylenes, Total	50.0	50.6		ug/L		101	70 - 130
Butadiene	25.0	23.2		ug/L		93	12 - 150
Hexane	25.0	27.5		ug/L		110	54 - 132
m-Xylene & p-Xylene	25.0	25.0		ug/L		100	70 - 130
o-Xylene	25.0	25.6		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 550-59202/7
Matrix: Water
Analysis Batch: 59202

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	29.2		ug/L		117	38 - 150	25	35
Benzene	25.0	23.8		ug/L		95	70 - 130	3	20
Bromobenzene	25.0	26.3		ug/L		105	70 - 130	1	20
Chlorobromomethane	25.0	27.7		ug/L		111	70 - 130	6	20
Dichlorobromomethane	25.0	24.9		ug/L		100	70 - 130	3	20
Bromoform	25.0	24.6		ug/L		98	69 - 129	2	20
Bromomethane	25.0	26.1		ug/L		104	57 - 138	1	20
2-Butanone (MEK)	25.0	26.7		ug/L		107	53 - 150	1	35
n-Butylbenzene	25.0	23.4		ug/L		93	70 - 130	5	20
sec-Butylbenzene	25.0	22.0		ug/L		88	70 - 130	5	20
Carbon disulfide	25.0	23.3		ug/L		93	64 - 145	3	33
Carbon tetrachloride	25.0	24.7		ug/L		99	70 - 143	6	20
Chlorobenzene	25.0	25.7		ug/L		103	70 - 130	3	20
Chloroethane	25.0	22.7		ug/L		91	66 - 131	6	20
Chloroform	25.0	25.0		ug/L		100	70 - 130	3	20
Chloromethane	25.0	22.4		ug/L		89	56 - 129	3	20
2-Chlorotoluene	25.0	22.8		ug/L		91	70 - 130	2	20
4-Chlorotoluene	25.0	23.0		ug/L		92	70 - 130	1	20
Chlorodibromomethane	25.0	27.3		ug/L		109	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	28.6		ug/L		114	63 - 146	3	22
Ethylene Dibromide	25.0	27.3		ug/L		109	70 - 130	1	20
Dibromomethane	25.0	27.2		ug/L		109	70 - 130	1	20
1,2-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	0	20
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	4	20
1,4-Dichlorobenzene	25.0	24.3		ug/L		97	70 - 130	5	20

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

Lab Sample ID: LCSD 550-59202/7
Matrix: Water
Analysis Batch: 59202

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	25.0	23.7		ug/L		95	46 - 144	15	23
1,1-Dichloroethane	25.0	24.3		ug/L		97	70 - 130	2	20
1,2-Dichloroethane	25.0	25.5		ug/L		102	66 - 139	2	20
1,1-Dichloroethene	25.0	23.0		ug/L		92	63 - 131	6	22
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130	3	20
trans-1,2-Dichloroethene	25.0	24.1		ug/L		97	69 - 127	3	20
1,2-Dichloropropane	25.0	24.0		ug/L		96	70 - 130	3	20
1,3-Dichloropropane	25.0	26.9		ug/L		108	70 - 130	0	20
2,2-Dichloropropane	25.0	25.2		ug/L		101	69 - 139	6	20
1,1-Dichloropropene	25.0	23.6		ug/L		94	70 - 130	5	20
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	25.2		ug/L		101	70 - 130	4	20
Ethylbenzene	25.0	23.6		ug/L		95	70 - 130	3	20
Hexachlorobutadiene	25.0	25.0		ug/L		100	76 - 145	7	20
2-Hexanone	25.0	25.4		ug/L		102	55 - 150	9	35
Iodomethane	25.0	27.0		ug/L		108	70 - 130	3	20
Isopropylbenzene	25.0	22.0		ug/L		88	88 - 141	4	20
4-Isopropyltoluene	25.0	23.9		ug/L		95	70 - 130	6	20
Methylene Chloride	25.0	21.2		ug/L		85	63 - 128	0	21
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142	1	25
Methyl tert-butyl ether	25.0	25.5		ug/L		102	70 - 130	2	20
Naphthalene	25.0	29.6		ug/L		118	78 - 143	5	20
N-Propylbenzene	25.0	22.1		ug/L		89	70 - 130	4	20
Styrene	25.0	24.8		ug/L		99	70 - 130	1	20
1,1,1,2-Tetrachloroethane	25.0	26.6		ug/L		106	70 - 130	1	20
1,1,2,2-Tetrachloroethane	25.0	26.2		ug/L		105	70 - 130	4	20
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130	2	20
Toluene	25.0	24.1		ug/L		97	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	30.7		ug/L		123	79 - 139	5	20
1,2,4-Trichlorobenzene	25.0	28.6		ug/L		114	80 - 137	5	20
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	71 - 131	7	20
1,1,2-Trichloroethane	25.0	26.8		ug/L		107	70 - 130	1	20
Trichloroethene	25.0	24.2		ug/L		97	70 - 130	3	20
Trichlorofluoromethane	25.0	25.0		ug/L		100	69 - 150	5	22
1,2,3-Trichloropropane	25.0	25.7		ug/L		103	70 - 130	4	20
1,2,4-Trimethylbenzene	25.0	22.7		ug/L		91	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	22.7		ug/L		91	70 - 130	3	20
Vinyl acetate	25.0	23.9		ug/L		96	67 - 148	11	22
Vinyl chloride	25.0	22.6		ug/L		90	65 - 137	3	20
Xylenes, Total	50.0	49.7		ug/L		99	70 - 130	2	20
Butadiene	25.0	22.1		ug/L		89	12 - 150	5	35
Hexane	25.0	25.2		ug/L		101	54 - 132	8	28
m-Xylene & p-Xylene	25.0	24.5		ug/L		98	70 - 130	2	20
o-Xylene	25.0	25.2		ug/L		101	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

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

Lab Sample ID: LCSD 550-59202/7
Matrix: Water
Analysis Batch: 59202

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Lab Sample ID: 550-41526-B-1 MS
Matrix: Water
Analysis Batch: 59202

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone - DL	ND	E8	250	181		ug/L		73	29 - 139
Benzene - DL	ND	E8	250	243		ug/L		97	68 - 131
Bromobenzene - DL	ND	E8	250	256		ug/L		102	70 - 130
Chlorobromomethane - DL	ND	E8	250	275		ug/L		110	64 - 132
Dichlorobromomethane - DL	ND	E8	250	247		ug/L		99	63 - 138
Bromoform - DL	ND	E8	250	246		ug/L		98	60 - 128
Bromomethane - DL	ND	E8	250	246		ug/L		98	47 - 144
2-Butanone (MEK) - DL	ND	E8	250	230		ug/L		92	31 - 143
n-Butylbenzene - DL	ND	E8	250	249		ug/L		100	69 - 140
sec-Butylbenzene - DL	ND	E8	250	238		ug/L		95	72 - 136
Carbon disulfide - DL	ND	E8	250	233		ug/L		93	45 - 150
Carbon tetrachloride - DL	ND	E8	250	261		ug/L		105	65 - 147
Chlorobenzene - DL	ND	E8	250	268		ug/L		107	70 - 130
Chloroethane - DL	ND	E8	250	232		ug/L		93	57 - 139
Chloroform - DL	ND	E8	250	247		ug/L		99	63 - 131
Chloromethane - DL	ND	E8	250	212		ug/L		85	47 - 134
2-Chlorotoluene - DL	ND	E8	250	231		ug/L		93	71 - 131
4-Chlorotoluene - DL	ND	E8	250	231		ug/L		92	70 - 130
Chlorodibromomethane - DL	ND	E8	250	283		ug/L		113	65 - 134
1,2-Dibromo-3-Chloropropane - DL	ND	E8	250	292		ug/L		117	53 - 145
Ethylene Dibromide - DL	ND	E8	250	279		ug/L		112	70 - 130
Dibromomethane - DL	ND	E8	250	266		ug/L		106	66 - 136
1,2-Dichlorobenzene - DL	ND	E8	250	250		ug/L		100	70 - 130
1,3-Dichlorobenzene - DL	ND	E8	250	255		ug/L		102	70 - 130
1,4-Dichlorobenzene - DL	ND	E8	250	248		ug/L		99	70 - 130
Dichlorodifluoromethane - DL	ND	E8	250	265		ug/L		106	40 - 148
1,1-Dichloroethane - DL	ND	E8	250	239		ug/L		95	62 - 130
1,2-Dichloroethane - DL	ND	E8	250	245		ug/L		98	54 - 147
1,1-Dichloroethene - DL	20		250	253		ug/L		93	57 - 137
cis-1,2-Dichloroethene - DL	12		250	260		ug/L		99	65 - 127
trans-1,2-Dichloroethene - DL	ND	E8	250	245		ug/L		98	62 - 131
1,2-Dichloropropane - DL	ND	E8	250	243		ug/L		97	68 - 126
1,3-Dichloropropane - DL	ND	E8	250	276		ug/L		110	68 - 129
2,2-Dichloropropane - DL	ND	E8	250	251		ug/L		101	60 - 146
1,1-Dichloropropene - DL	ND	E8	250	251		ug/L		100	64 - 134
cis-1,3-Dichloropropene - DL	ND	E8	250	250		ug/L		100	63 - 135
trans-1,3-Dichloropropene - DL	ND	E8	250	246		ug/L		99	58 - 136
Ethylbenzene - DL	ND	E8	250	256		ug/L		102	74 - 134

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 550-41526-B-1 MS
Matrix: Water
Analysis Batch: 59202

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene - DL	ND	E8	250	273		ug/L		109	69 - 150
2-Hexanone - DL	ND	E8	250	210		ug/L		84	40 - 142
Iodomethane - DL	ND	E8	250	264		ug/L		106	53 - 150
Isopropylbenzene - DL	ND	E8	250	230		ug/L		92	80 - 146
4-Isopropyltoluene - DL	ND	E8	250	256		ug/L		102	70 - 133
Methylene Chloride - DL	ND	E8	250	202		ug/L		81	55 - 133
4-Methyl-2-pentanone (MIBK) - DL	ND	E8	250	238		ug/L		95	52 - 143
Methyl tert-butyl ether - DL	ND	E8	250	251		ug/L		101	67 - 138
Naphthalene - DL	ND	E8	250	298		ug/L		119	67 - 146
N-Propylbenzene - DL	ND	E8	250	231		ug/L		92	74 - 140
Styrene - DL	ND	E8	250	248		ug/L		99	43 - 144
1,1,1,2-Tetrachloroethane - DL	ND	E8	250	267		ug/L		107	70 - 130
1,1,2,2-Tetrachloroethane - DL	ND	E8	250	275		ug/L		110	63 - 137
Tetrachloroethene - DL	12		250	285		ug/L		109	67 - 131
Toluene - DL	ND	E8	250	246		ug/L		98	65 - 138
1,2,3-Trichlorobenzene - DL	ND	E8	250	306		ug/L		123	74 - 139
1,2,4-Trichlorobenzene - DL	ND	E8	250	280		ug/L		112	74 - 138
1,1,1-Trichloroethane - DL	28		250	277		ug/L		99	64 - 138
1,1,2-Trichloroethane - DL	ND	E8	250	261		ug/L		104	63 - 132
Trichloroethene - DL	380		250	639		ug/L		104	66 - 132
Trichlorofluoromethane - DL	ND	E8	250	265		ug/L		106	62 - 150
1,2,3-Trichloropropane - DL	ND	E8	250	281		ug/L		112	68 - 130
1,2,4-Trimethylbenzene - DL	ND	E8	250	232		ug/L		93	63 - 135
1,3,5-Trimethylbenzene - DL	ND	E8	250	234		ug/L		94	66 - 137
Vinyl acetate - DL	ND	E8	250	252		ug/L		101	47 - 150
Vinyl chloride - DL	ND	E8	250	221		ug/L		88	55 - 146
Xylenes, Total - DL	ND	E8	500	518		ug/L		104	68 - 131
Butadiene - DL	ND	E8	250	223		ug/L		89	10 - 150
Hexane - DL	ND	E8	250	261		ug/L		104	46 - 139
m-Xylene & p-Xylene - DL	ND	E8	250	256		ug/L		103	58 - 138
o-Xylene - DL	ND	E8	250	262		ug/L		105	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr) - DL	*104*		*70 - 130*
Toluene-d8 (Surr) - DL	*99*		*70 - 130*
4-Bromofluorobenzene (Surr) - DL	*102*		*70 - 130*

Lab Sample ID: 550-41526-B-1 MSD
Matrix: Water
Analysis Batch: 59202

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone - DL	ND	E8	250	154		ug/L		61	29 - 139	17	35
Benzene - DL	ND	E8	250	243		ug/L		97	68 - 131	0	32
Bromobenzene - DL	ND	E8	250	256		ug/L		102	70 - 130	0	28
Chlorobromomethane - DL	ND	E8	250	281		ug/L		112	64 - 132	2	35

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 550-41526-B-1 MSD
Matrix: Water
Analysis Batch: 59202

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorobromomethane - DL	ND	E8	250	247		ug/L		99	63 - 138	0	31
Bromoform - DL	ND	E8	250	240		ug/L		96	60 - 128	2	31
Bromomethane - DL	ND	E8	250	250		ug/L		100	47 - 144	2	35
2-Butanone (MEK) - DL	ND	E8	250	235		ug/L		94	31 - 143	2	35
n-Butylbenzene - DL	ND	E8	250	250		ug/L		100	69 - 140	0	32
sec-Butylbenzene - DL	ND	E8	250	239		ug/L		96	72 - 136	1	33
Carbon disulfide - DL	ND	E8	250	239		ug/L		96	45 - 150	2	35
Carbon tetrachloride - DL	ND	E8	250	268		ug/L		107	65 - 147	2	35
Chlorobenzene - DL	ND	E8	250	259		ug/L		104	70 - 130	3	30
Chloroethane - DL	ND	E8	250	235		ug/L		94	57 - 139	2	35
Chloroform - DL	ND	E8	250	259		ug/L		104	63 - 131	5	33
Chloromethane - DL	ND	E8	250	219		ug/L		88	47 - 134	3	35
2-Chlorotoluene - DL	ND	E8	250	232		ug/L		93	71 - 131	0	29
4-Chlorotoluene - DL	ND	E8	250	230		ug/L		92	70 - 130	1	28
Chlorodibromomethane - DL	ND	E8	250	268		ug/L		107	65 - 134	5	33
1,2-Dibromo-3-Chloropropane - DL	ND	E8	250	251		ug/L		100	53 - 145	15	35
Ethylene Dibromide - DL	ND	E8	250	268		ug/L		107	70 - 130	4	33
Dibromomethane - DL	ND	E8	250	265		ug/L		106	66 - 136	0	35
1,2-Dichlorobenzene - DL	ND	E8	250	253		ug/L		101	70 - 130	1	27
1,3-Dichlorobenzene - DL	ND	E8	250	258		ug/L		103	70 - 130	1	28
1,4-Dichlorobenzene - DL	ND	E8	250	248		ug/L		99	70 - 130	0	26
Dichlorodifluoromethane - DL	ND	E8	250	267		ug/L		107	40 - 148	1	35
1,1-Dichloroethane - DL	ND	E8	250	245		ug/L		98	62 - 130	2	34
1,2-Dichloroethane - DL	ND	E8	250	250		ug/L		100	54 - 147	2	35
1,1-Dichloroethene - DL	20		250	264		ug/L		98	57 - 137	4	35
cis-1,2-Dichloroethene - DL	12		250	267		ug/L		102	65 - 127	3	34
trans-1,2-Dichloroethene - DL	ND	E8	250	244		ug/L		98	62 - 131	0	35
1,2-Dichloropropane - DL	ND	E8	250	244		ug/L		97	68 - 126	0	32
1,3-Dichloropropane - DL	ND	E8	250	265		ug/L		106	68 - 129	4	33
2,2-Dichloropropane - DL	ND	E8	250	258		ug/L		103	60 - 146	3	35
1,1-Dichloropropene - DL	ND	E8	250	252		ug/L		101	64 - 134	1	34
cis-1,3-Dichloropropene - DL	ND	E8	250	249		ug/L		100	63 - 135	0	35
trans-1,3-Dichloropropene - DL	ND	E8	250	250		ug/L		100	58 - 136	1	35
Ethylbenzene - DL	ND	E8	250	247		ug/L		99	74 - 134	4	32
Hexachlorobutadiene - DL	ND	E8	250	270		ug/L		108	69 - 150	1	32
2-Hexanone - DL	ND	E8	250	199		ug/L		80	40 - 142	5	35
Iodomethane - DL	ND	E8	250	274		ug/L		109	53 - 150	4	35
Isopropylbenzene - DL	ND	E8	250	231		ug/L		93	80 - 146	0	32
4-Isopropyltoluene - DL	ND	E8	250	258		ug/L		103	70 - 133	1	32
Methylene Chloride - DL	ND	E8	250	204		ug/L		82	55 - 133	1	35
4-Methyl-2-pentanone (MIBK) - DL	ND	E8	250	225		ug/L		90	52 - 143	5	35
Methyl tert-butyl ether - DL	ND	E8	250	245		ug/L		98	67 - 138	2	21
Naphthalene - DL	ND	E8	250	287		ug/L		115	67 - 146	4	29
N-Propylbenzene - DL	ND	E8	250	232		ug/L		93	74 - 140	1	32
Styrene - DL	ND	E8	250	249		ug/L		100	43 - 144	0	35
1,1,1,2-Tetrachloroethane - DL	ND	E8	250	266		ug/L		106	70 - 130	1	30
1,1,2,2-Tetrachloroethane - DL	ND	E8	250	259		ug/L		104	63 - 137	6	32

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 550-41526-B-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59202

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene - DL	12		250	281		ug/L		107	67 - 131	1	31
Toluene - DL	ND	E8	250	248		ug/L		99	65 - 138	1	33
1,2,3-Trichlorobenzene - DL	ND	E8	250	299		ug/L		119	74 - 139	3	26
1,2,4-Trichlorobenzene - DL	ND	E8	250	281		ug/L		113	74 - 138	0	26
1,1,1-Trichloroethane - DL	28		250	285		ug/L		103	64 - 138	3	35
1,1,2-Trichloroethane - DL	ND	E8	250	272		ug/L		109	63 - 132	4	35
Trichloroethene - DL	380		250	634		ug/L		102	66 - 132	1	29
Trichlorofluoromethane - DL	ND	E8	250	270		ug/L		108	62 - 150	2	35
1,2,3-Trichloropropane - DL	ND	E8	250	262		ug/L		105	68 - 130	7	32
1,2,4-Trimethylbenzene - DL	ND	E8	250	233		ug/L		93	63 - 135	0	31
1,3,5-Trimethylbenzene - DL	ND	E8	250	234		ug/L		94	66 - 137	0	30
Vinyl acetate - DL	ND	E8	250	246		ug/L		99	47 - 150	2	35
Vinyl chloride - DL	ND	E8	250	231		ug/L		92	55 - 146	4	35
Xylenes, Total - DL	ND	E8	500	509		ug/L		102	68 - 131	2	31
Butadiene - DL	ND	E8	250	225		ug/L		90	10 - 150	1	35
Hexane - DL	ND	E8	250	270		ug/L		108	46 - 139	4	35
m-Xylene & p-Xylene - DL	ND	E8	250	251		ug/L		101	58 - 138	2	29
o-Xylene - DL	ND	E8	250	258		ug/L		103	66 - 137	1	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr) - DL	*101*		*70 - 130*
Toluene-d8 (Surr) - DL	*92*		*70 - 130*
4-Bromofluorobenzene (Surr) - DL	*95*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58978/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58978

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/18/15 17:42	1

Lab Sample ID: LCS 550-58978/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.04		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-58978/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58978

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.03		mg/L		101	90 - 110	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-41737-C-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.2		4.00	5.78		mg/L		89	80 - 120

Lab Sample ID: 550-41737-C-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.2		4.00	5.84		mg/L		91	80 - 120	1	20

Lab Sample ID: MB 550-59328/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59328

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/23/15 17:15	1
Chloride	ND	E8	2.0	0.29	mg/L			03/23/15 17:15	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/23/15 17:15	1
Bromide	ND	E8	0.50	0.051	mg/L			03/23/15 17:15	1

Lab Sample ID: LCS 550-59328/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59328

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.05		mg/L		101	90 - 110
Chloride	20.0	19.7		mg/L		99	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110
Bromide	4.00	3.92		mg/L		98	90 - 110

Lab Sample ID: LCSD 550-59328/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59328

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.05		mg/L		101	90 - 110	0	20
Chloride	20.0	19.8		mg/L		99	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	0	20
Bromide	4.00	3.90		mg/L		98	90 - 110	0	20

Lab Sample ID: 550-41181-E-15 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59328

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.67		4.00	4.81		mg/L		104	80 - 120
Chloride	280	E2 M3	20.0	281	E2 M3	mg/L		-4	80 - 120
Sulfate	760	E2 M3	20.0	749	E2 M3	mg/L		-64	80 - 120
Bromide	0.97		4.00	4.94		mg/L		99	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 550-41181-E-15 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59328

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.67		4.00	4.91		mg/L		106	80 - 120	2	20
Chloride	280	E2 M3	20.0	281	E2 M3	mg/L		-1	80 - 120	0	20
Sulfate	760	E2 M3	20.0	751	E2 M3	mg/L		-55	80 - 120	0	20
Bromide	0.97		4.00	5.04		mg/L		102	80 - 120	2	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58863/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59043 — **Prep Batch: 58863**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/18/15 14:54	03/19/15 21:34	1
Calcium	ND	E8	2.0	0.014	mg/L		03/18/15 14:54	03/19/15 21:34	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/18/15 14:54	03/19/15 21:34	1
Potassium	0.0745	E4	0.50	0.067	mg/L		03/18/15 14:54	03/19/15 21:34	1
Sodium	ND	E8	0.50	0.15	mg/L		03/18/15 14:54	03/19/15 21:34	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/18/15 14:54	03/19/15 21:34	1

Lab Sample ID: LCS 550-58863/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59043 — **Prep Batch: 58863**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.02		mg/L		102	85 - 115
Calcium	21.0	22.0		mg/L		105	85 - 115
Magnesium	21.0	21.7		mg/L		103	85 - 115
Potassium	20.0	20.5		mg/L		102	85 - 115
Sodium	20.0	20.3		mg/L		102	85 - 115
Chromium	1.00	1.04		mg/L		104	85 - 115

Lab Sample ID: LCSD 550-58863/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59043 — **Prep Batch: 58863**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.05		mg/L		105	85 - 115	2	20
Calcium	21.0	22.2		mg/L		105	85 - 115	1	20
Magnesium	21.0	21.9		mg/L		104	85 - 115	1	20
Potassium	20.0	20.7		mg/L		103	85 - 115	1	20
Sodium	20.0	20.6		mg/L		103	85 - 115	1	20
Chromium	1.00	1.04		mg/L		104	85 - 115	0	20

Lab Sample ID: 550-41818-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59043 — **Prep Batch: 58863**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.61		1.00	1.57		mg/L		96	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 550-41818-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59043 — **Prep Batch: 58863**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	39		21.0	57.4		mg/L		89	70 - 130
Magnesium	20		21.0	39.7		mg/L		96	70 - 130
Potassium	2.8		20.0	23.1		mg/L		101	70 - 130
Sodium	99		20.0	113	M3	mg/L		71	70 - 130
Chromium	0.0026	E4	1.00	1.01		mg/L		101	70 - 130

Lab Sample ID: 550-41818-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59043 — **Prep Batch: 58863**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.61		1.00	1.63		mg/L		102	70 - 130	4	20
Calcium	39		21.0	58.7		mg/L		95	70 - 130	2	20
Magnesium	20		21.0	40.3		mg/L		99	70 - 130	2	20
Potassium	2.8		20.0	23.2		mg/L		102	70 - 130	1	20
Sodium	99		20.0	114	M3	mg/L		77	70 - 130	1	20
Chromium	0.0026	E4	1.00	1.03		mg/L		103	70 - 130	2	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-59346/35 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 01:21	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 01:21	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 01:21	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/24/15 01:21	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 01:21	1

Lab Sample ID: LCS 550-59346/34 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	250	240		mg/L		96	90 - 110

Lab Sample ID: LCSD 550-59346/48 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3	250	244		mg/L		98	90 - 110	2	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 550-41707-A-1 DU
Matrix: Water
Analysis Batch: 59346

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	150			152		mg/L				1	20
Bicarbonate Alkalinity as CaCO3	150			152		mg/L				1	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

GC/MS VOA

Analysis Batch: 59140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41486-C-1 MS	Matrix Spike	Total/NA	Water	8260B	
550-41486-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
550-41743-1	SJ-MW-2-031715	Total/NA	Water	8260B	
550-41743-2	IRA-17-031715	Total/NA	Water	8260B	
550-41743-3	IRA-21-031715	Total/NA	Water	8260B	
550-41743-4	IRA-12-70-031715	Total/NA	Water	8260B	
550-41743-5	IRA-12-70-031715-DUP	Total/NA	Water	8260B	
550-41743-6	IRA-16-031715	Total/NA	Water	8260B	
LCS 550-59140/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-59140/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-59140/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 59162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41581-F-1 MS	Matrix Spike	Total/NA	Water	8260B	
550-41581-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
550-41743-7	IRA-22-031715	Total/NA	Water	8260B	
550-41743-8	TB	Total/NA	Water	8260B	
LCS 550-59162/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-59162/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-59162/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 59202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41526-B-1 MS - DL	Matrix Spike	Total/NA	Water	8260B	
550-41526-B-1 MSD - DL	Matrix Spike Duplicate	Total/NA	Water	8260B	
550-41743-2 - DL	IRA-17-031715	Total/NA	Water	8260B	
550-41743-6 - DL	IRA-16-031715	Total/NA	Water	8260B	
LCS 550-59202/6	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-59202/7	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-59202/8	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41737-C-1 MS	Matrix Spike	Total/NA	Water	300.0	
550-41737-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-41743-4	IRA-12-70-031715	Total/NA	Water	300.0	
550-41743-5	IRA-12-70-031715-DUP	Total/NA	Water	300.0	
LCS 550-58978/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58978/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58978/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 59328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41181-E-15 MS	Matrix Spike	Total/NA	Water	300.0	
550-41181-E-15 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
550-41743-1	SJ-MW-2-031715	Total/NA	Water	300.0	
LCS 550-59328/5	Lab Control Sample	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 59328 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 550-59328/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-59328/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 59594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41743-1	SJ-MW-2-031715	Total/NA	Water	300.0	

Metals

Prep Batch: 58863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41743-1	SJ-MW-2-031715	Total/NA	Water	200.7	
550-41743-2	IRA-17-031715	Total/NA	Water	200.7	
550-41743-3	IRA-21-031715	Total/NA	Water	200.7	
550-41743-4	IRA-12-70-031715	Total/NA	Water	200.7	
550-41743-5	IRA-12-70-031715-DUP	Total/NA	Water	200.7	
550-41743-6	IRA-16-031715	Total/NA	Water	200.7	
550-41743-7	IRA-22-031715	Total/NA	Water	200.7	
550-41818-A-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-41818-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
LCS 550-58863/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58863/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58863/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 59043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41743-1	SJ-MW-2-031715	Total/NA	Water	200.7 Rev 4.4	58863
550-41743-2	IRA-17-031715	Total/NA	Water	200.7 Rev 4.4	58863
550-41743-3	IRA-21-031715	Total/NA	Water	200.7 Rev 4.4	58863
550-41743-4	IRA-12-70-031715	Total/NA	Water	200.7 Rev 4.4	58863
550-41743-5	IRA-12-70-031715-DUP	Total/NA	Water	200.7 Rev 4.4	58863
550-41743-6	IRA-16-031715	Total/NA	Water	200.7 Rev 4.4	58863
550-41743-7	IRA-22-031715	Total/NA	Water	200.7 Rev 4.4	58863
550-41818-A-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	58863
550-41818-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	58863
LCS 550-58863/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58863
LCSD 550-58863/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58863
MB 550-58863/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58863

General Chemistry

Analysis Batch: 59346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41707-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	
550-41743-1	SJ-MW-2-031715	Total/NA	Water	SM 2320B	
LCS 550-59346/34	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-59346/48	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-59346/35	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: SJ-MW-2-031715 — Lab Sample ID: 550-41743-1

Date Collected: 03/17/15 12:10 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59140	03/21/15 02:11	UT	TAL PHX
Total/NA	Analysis	300.0		10	59328	03/24/15 04:18	KLH	TAL PHX
Total/NA	Analysis	300.0		2	59594	03/26/15 05:21	MHH	TAL PHX
Total/NA	Prep	200.7			58863	03/18/15 14:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59043	03/19/15 21:56	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	59346	03/24/15 05:29	CDC	TAL PHX

Client Sample ID: IRA-17-031715 — Lab Sample ID: 550-41743-2

Date Collected: 03/17/15 13:10 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	59202	03/23/15 20:16	UT	TAL PHX
Total/NA	Analysis	8260B		1	59140	03/21/15 02:43	UT	TAL PHX
Total/NA	Prep	200.7			58863	03/18/15 14:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59043	03/19/15 22:08	AJC	TAL PHX

Client Sample ID: IRA-21-031715 — Lab Sample ID: 550-41743-3

Date Collected: 03/17/15 13:30 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59140	03/21/15 03:14	UT	TAL PHX
Total/NA	Prep	200.7			58863	03/18/15 14:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59043	03/19/15 22:14	AJC	TAL PHX

Client Sample ID: IRA-12-70-031715 — Lab Sample ID: 550-41743-4

Date Collected: 03/17/15 13:55 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59140	03/21/15 03:47	UT	TAL PHX
Total/NA	Analysis	300.0		1	58978	03/18/15 21:23	MHH	TAL PHX
Total/NA	Prep	200.7			58863	03/18/15 14:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59043	03/19/15 22:17	AJC	TAL PHX

Client Sample ID: IRA-12-70-031715-DUP — Lab Sample ID: 550-41743-5

Date Collected: 03/17/15 13:55 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59140	03/21/15 04:19	UT	TAL PHX

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Client Sample ID: IRA-12-70-031715-DUP — Lab Sample ID: 550-41743-5

Date Collected: 03/17/15 13:55 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	58978	03/18/15 21:41	MHH	TAL PHX
Total/NA	Prep	200.7			58863	03/18/15 14:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59043	03/19/15 22:19	AJC	TAL PHX

Client Sample ID: IRA-16-031715 — Lab Sample ID: 550-41743-6

Date Collected: 03/17/15 14:20 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	59202	03/23/15 20:47	UT	TAL PHX
Total/NA	Analysis	8260B		1	59140	03/21/15 04:51	UT	TAL PHX
Total/NA	Prep	200.7			58863	03/18/15 14:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59043	03/19/15 22:25	AJC	TAL PHX

Client Sample ID: IRA-22-031715 — Lab Sample ID: 550-41743-7

Date Collected: 03/17/15 14:40 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59162	03/22/15 03:48	UT	TAL PHX
Total/NA	Prep	200.7			58863	03/18/15 14:54	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59043	03/19/15 22:28	AJC	TAL PHX

Client Sample ID: TB — Lab Sample ID: 550-41743-8

Date Collected: 03/17/15 14:41 — **Matrix: Water**
Date Received: 03/17/15 14:51

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59162	03/21/15 22:28	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41743-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

550-41743

TestAmerica

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TAL-0013-550 (12/08)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 2520 E. Sunset, Suite 3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Page 1 of 1

3/31/2015

Client Name/Address: AMEC 4600 E Washington Phoenix AZ 85034

Project/PO Number: Miracle Mile WQARF 1420142030.5.3

Project Manager: Allang Gu

Phone Number: 602-733-6000

Sampler: Sargent/Combs

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260LL	200.7 total Chromium	300.0 Nitrate	200.7 Metals (K, Na, Ca, Mg, boron, total chromium)	2320B+ 300.0 alkalinity Anions (Cl, SO4, NO3, bromide, fluoride)					Special Instructions
SJ-MW-2-031715	Aq	40ml 250ml 500ml	5	3/17/15	1210	HCl HNO3	X			X	X					ADEQ# 67120
IRA-17-031715		40ml 250ml	4		1310	HCl HNO3	X	X								ADEQ# 61481
IRA-21-031715		40ml 250ml	4		1330	HCl HNO3	X	X								ADEQ# 61477
IRA-12-70-031715		40ml 250ml	5		1355	HCl HNO3	X	X	X							ADEQ# 61485
IRA-12-70-031715-DUP		40ml 250ml	5		1355	HCl HNO3	X	X	X							ADEQ# 61485
IRA-16-031715		40ml 250ml	4		1420	HCl HNO3	X	X								ADEQ# 61482
IRA-22-031715		250ml 40ml	4		1440	HCl HNO3	X	X								ADEQ# 61476
TB		40ml	1	3/17/15	1441	HCl	X									

550-41743 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
	3/17/15 1451		3-17-15 1451
Relinquished By:	Date/Time:	Received By:	Date/Time:
	3-17-15 1530		
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
			3-18-15 0950

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2.7 (6°C)

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41743-1

Login Number: 41743

List Source: TestAmerica Phoenix

List Number: 1

Creator: Gaska, Kristinena

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41834-1
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/30/2015 10:51:36 AM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
V1	CCV recovery was above method acceptance limits. The analyte was not detected in the sample.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
L5	The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to sample matrix.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
D2	Sample required dilution due to high concentration of analyte.
H1	Sample analysis performed past holding time.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 550-41834-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41834-1

Comments
No additional comments.

Receipt
The samples were received on 3/18/2015 2:47 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.9º C and 3.2º C.

GC/MS VOA
Method(s) 8260B: Internal standard (ISTD) response for TBA-d9 for the following sample(s) was outside acceptance criteria: 550-41834-A-1. This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported with E6 flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
Method(s) 300.0: The following samples were analyzed outside of analytical holding time for Nitrate. The laboratory added on Nitrate analysis after the samples were past the 48 hour holding time. Sample data is qualified with an H1 flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41834-1	IRA-30-031815	Water	03/18/15 13:20	03/18/15 14:47
550-41834-2	IRA-40-031815	Water	03/18/15 12:45	03/18/15 14:47
550-41834-3	IRA-14(2)-031815	Water	03/18/15 13:50	03/18/15 14:47
550-41834-4	IRA-14(3)-031815	Water	03/18/15 10:20	03/18/15 14:47
550-41834-5	IRA-14(4)-031815	Water	03/18/15 10:40	03/18/15 14:47
550-41834-6	IRA-14(4)-031815-DUP	Water	03/18/15 10:40	03/18/15 14:47
550-41834-7	TB	Water	03/18/15 13:51	03/18/15 14:47

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Client Sample ID: IRA-30-031815 — Lab Sample ID: 550-41834-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	7.1		0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.25	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Toluene	0.69		0.50	0.28	ug/L	1		8260B	Total/NA
Trichloroethene	71	M2	0.50	0.24	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	0.25	E4	0.50	0.25	ug/L	1		8260B	Total/NA
Bromide	1.1		0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	130	D2	40	5.8	mg/L	20		300.0	Total/NA
Nitrate as N	30	H1	2.0	1.0	mg/L	20		300.0	Total/NA
Sulfate	370	D2	40	4.3	mg/L	20		300.0	Total/NA
Boron	0.37		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	200		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	30		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.7		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	160		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.0056	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	300		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	300		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-40-031815 — Lab Sample ID: 550-41834-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	10		0.50	0.13	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.48	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	5.4		0.50	0.24	ug/L	1		8260B	Total/NA
Bromide	0.79		0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	280	D2	40	5.8	mg/L	20		300.0	Total/NA
Nitrate as N	8.3	H1	0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	700	D2	40	4.3	mg/L	20		300.0	Total/NA
Boron	1.2		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	260		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	28		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.8		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	440		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.15		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	470		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	470		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-14(2)-031815 — Lab Sample ID: 550-41834-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.37	E4	0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.65		0.50	0.23	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.32	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Naphthalene	0.61	E4	2.5	0.51	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.20	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Toluene	0.98		0.50	0.28	ug/L	1		8260B	Total/NA
Trichloroethene	8.9		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	1.9		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.010		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Client Sample ID: IRA-14(3)-031815 — Lab Sample ID: 550-41834-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.25	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.35	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	0.71		0.50	0.24	ug/L	1		8260B	Total/NA
Bromide	0.42	E4	0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	130	D2	40	5.8	mg/L	20		300.0	Total/NA
Nitrate as N	5.5	H1	0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	230	D2	40	4.3	mg/L	20		300.0	Total/NA
Boron	0.16		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	75		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	3.1		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	2.5		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	140		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.0015	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	110		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: IRA-14(4)-031815 — Lab Sample ID: 550-41834-5

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.8		0.50	0.21	ug/L	1		8260B	Total/NA
Trichloroethene	4.3		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	0.064	E4	0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.064		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-14(4)-031815-DUP — Lab Sample ID: 550-41834-6

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.9		0.50	0.21	ug/L	1		8260B	Total/NA
Trichloroethene	3.6		0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	0.059	E4	0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.0035	E4	0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41834-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Client Sample ID: IRA-30-031815
Date Collected: 03/18/15 13:20
Date Received: 03/18/15 14:47

Lab Sample ID: 550-41834-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 11:39	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 11:39	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 11:39	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 11:39	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 11:39	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 11:39	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 11:39	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 11:39	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 11:39	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 11:39	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 11:39	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 11:39	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 11:39	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 11:39	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 11:39	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/24/15 11:39	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 11:39	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 11:39	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 11:39	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 11:39	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 11:39	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 11:39	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 11:39	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 11:39	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 11:39	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 11:39	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 11:39	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 11:39	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 11:39	1
1,1-Dichloroethene	**7.1**		0.50	0.23	ug/L			03/24/15 11:39	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/24/15 11:39	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 11:39	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 11:39	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 11:39	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 11:39	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 11:39	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 11:39	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 11:39	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 11:39	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 11:39	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 11:39	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 11:39	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 11:39	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 11:39	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 11:39	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 11:39	1
Methyl tert-butyl ether	**0.25**	**E4**	0.50	0.22	ug/L			03/24/15 11:39	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/24/15 11:39	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 11:39	1

Client Sample ID: IRA-30-031815

Lab Sample ID: 550-41834-1

Date Collected: 03/18/15 13:20

Matrix: Water

Date Received: 03/18/15 14:47

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 11:39	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 11:39	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 11:39	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/24/15 11:39	1
Toluene	**0.69**		0.50	0.28	ug/L			03/24/15 11:39	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/24/15 11:39	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/24/15 11:39	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 11:39	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 11:39	1
Trichloroethene	**71**	**M2**	0.50	0.24	ug/L			03/24/15 11:39	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 11:39	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 11:39	1
1,2,4-Trimethylbenzene	**0.25**	**E4**	0.50	0.25	ug/L			03/24/15 11:39	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 11:39	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 11:39	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 11:39	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 11:39	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 11:39	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 11:39	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 11:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 11:39*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 11:39*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/24/15 11:39*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/24/15 11:39*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/24/15 11:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*91*		*70 - 130*		*03/24/15 11:39*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*03/24/15 11:39*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*03/24/15 11:39*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**1.1**		0.50	0.051	mg/L			03/26/15 05:58	1
Chloride	**130**	**D2**	40	5.8	mg/L			03/26/15 06:16	20
Nitrate as N	**30**	**H1**	2.0	1.0	mg/L			03/26/15 06:16	20
Sulfate	**370**	**D2**	40	4.3	mg/L			03/26/15 06:16	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.37**		0.050	0.0049	mg/L		03/19/15 16:25	03/23/15 18:08	1
Calcium	**200**		2.0	0.014	mg/L		03/19/15 16:25	03/23/15 18:08	1
Magnesium	**30**		2.0	0.017	mg/L		03/19/15 16:25	03/23/15 18:08	1
Potassium	**3.7**		0.50	0.067	mg/L		03/19/15 16:25	03/23/15 18:08	1
Sodium	**160**		0.50	0.15	mg/L		03/19/15 16:25	03/23/15 18:08	1
Chromium	**0.0056**	**E4**	0.010	0.00050	mg/L		03/19/15 16:25	03/23/15 18:08	1

Client Sample ID: IRA-30-031815

Lab Sample ID: 550-41834-1

Date Collected: 03/18/15 13:20

Matrix: Water

Date Received: 03/18/15 14:47

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**300**		6.0	6.0	mg/L			03/24/15 08:35	1
Bicarbonate Alkalinity as CaCO3	**300**		6.0	6.0	mg/L			03/24/15 08:35	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 08:35	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/24/15 08:35	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 08:35	1

Client Sample ID: IRA-40-031815

Lab Sample ID: 550-41834-2

Date Collected: 03/18/15 12:45

Matrix: Water

Date Received: 03/18/15 14:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 13:23	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 13:23	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 13:23	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 13:23	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 13:23	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 13:23	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 13:23	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 13:23	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/25/15 20:25	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 13:23	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 13:23	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 13:23	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 13:23	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 13:23	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 13:23	1
Chloroform	**10**		0.50	0.13	ug/L			03/24/15 13:23	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 13:23	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 13:23	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 13:23	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 13:23	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 13:23	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 13:23	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 13:23	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 13:23	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 13:23	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 13:23	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 13:23	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 13:23	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 13:23	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/24/15 13:23	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/24/15 13:23	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 13:23	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 13:23	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 13:23	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 13:23	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 13:23	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 13:23	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 13:23	1

Client Sample ID: IRA-40-031815

Lab Sample ID: 550-41834-2

Date Collected: 03/18/15 12:45

Matrix: Water

Date Received: 03/18/15 14:47

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 13:23	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 13:23	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 13:23	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 13:23	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 13:23	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 13:23	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 13:23	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 13:23	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/24/15 13:23	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/25/15 20:25	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 13:23	1
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 13:23	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 13:23	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 13:23	1
Tetrachloroethene	**0.48**	**E4**	0.50	0.18	ug/L			03/24/15 13:23	1
Toluene	ND	E8	0.50	0.28	ug/L			03/24/15 13:23	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/25/15 20:25	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/25/15 20:25	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 13:23	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 13:23	1
Trichloroethene	**5.4**		0.50	0.24	ug/L			03/24/15 13:23	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 13:23	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 13:23	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 13:23	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 13:23	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 13:23	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 13:23	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 13:23	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 13:23	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 13:23	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 13:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 13:23*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 13:23*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/24/15 13:23*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/24/15 13:23*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/24/15 13:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*03/24/15 13:23*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*03/25/15 20:25*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/24/15 13:23*	*1*
Toluene-d8 (Surr)	*83*		*70 - 130*		*03/25/15 20:25*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*03/24/15 13:23*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*03/25/15 20:25*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.79**		0.50	0.051	mg/L			03/26/15 06:35	1

Client Sample ID: IRA-40-031815

Lab Sample ID: 550-41834-2

Date Collected: 03/18/15 12:45

Matrix: Water

Date Received: 03/18/15 14:47

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	280	D2	40	5.8	mg/L			03/26/15 06:53	20
Nitrate as N	8.3	H1	0.10	0.051	mg/L			03/26/15 06:35	1
Sulfate	700	D2	40	4.3	mg/L			03/26/15 06:53	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.2		0.050	0.0049	mg/L		03/19/15 16:25	03/23/15 18:11	1
Calcium	260		2.0	0.014	mg/L		03/19/15 16:25	03/23/15 18:11	1
Magnesium	28		2.0	0.017	mg/L		03/19/15 16:25	03/23/15 18:11	1
Potassium	2.8		0.50	0.067	mg/L		03/19/15 16:25	03/23/15 18:11	1
Sodium	440		0.50	0.15	mg/L		03/19/15 16:25	03/23/15 18:11	1
Chromium	0.15		0.010	0.00050	mg/L		03/19/15 16:25	03/23/15 18:11	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	470		6.0	6.0	mg/L			03/24/15 09:10	1
Bicarbonate Alkalinity as CaCO3	470		6.0	6.0	mg/L			03/24/15 09:10	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 09:10	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/24/15 09:10	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 09:10	1

Client Sample ID: IRA-14(2)-031815

Lab Sample ID: 550-41834-3

Date Collected: 03/18/15 13:50

Matrix: Water

Date Received: 03/18/15 14:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 13:55	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 13:55	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 13:55	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 13:55	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 13:55	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 13:55	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 13:55	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 13:55	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 13:55	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 13:55	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 13:55	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 13:55	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 13:55	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 13:55	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 13:55	1
Chloroform	0.37	E4	0.50	0.13	ug/L			03/24/15 13:55	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 13:55	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 13:55	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 13:55	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 13:55	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 13:55	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 13:55	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 13:55	1

Client Sample ID: IRA-14(2)-031815

Lab Sample ID: 550-41834-3

Date Collected: 03/18/15 13:50

Matrix: Water

Date Received: 03/18/15 14:47

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 13:55	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 13:55	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 13:55	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 13:55	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 13:55	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 13:55	1
1,1-Dichloroethene	**0.65**		0.50	0.23	ug/L			03/24/15 13:55	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/24/15 13:55	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 13:55	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 13:55	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 13:55	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 13:55	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 13:55	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 13:55	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 13:55	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 13:55	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 13:55	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 13:55	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 13:55	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 13:55	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 13:55	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 13:55	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 13:55	1
Methyl tert-butyl ether	**0.32**	**E4**	0.50	0.22	ug/L			03/24/15 13:55	1
Naphthalene	**0.61**	**E4**	2.5	0.51	ug/L			03/24/15 13:55	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 13:55	1
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 13:55	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 13:55	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 13:55	1
Tetrachloroethene	**0.20**	**E4**	0.50	0.18	ug/L			03/24/15 13:55	1
Toluene	**0.98**		0.50	0.28	ug/L			03/24/15 13:55	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/24/15 13:55	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/24/15 13:55	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 13:55	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 13:55	1
Trichloroethene	**8.9**		0.50	0.24	ug/L			03/24/15 13:55	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 13:55	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 13:55	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 13:55	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 13:55	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 13:55	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 13:55	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 13:55	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 13:55	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 13:55	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 13:55	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 13:55*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 13:55*	*1*

Client Sample ID: IRA-14(2)-031815

Lab Sample ID: 550-41834-3

Date Collected: 03/18/15 13:50

Matrix: Water

Date Received: 03/18/15 14:47

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

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/24/15 13:55	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/24/15 13:55	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/24/15 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		70 - 130		03/24/15 13:55	1
Toluene-d8 (Surr)	94		70 - 130		03/24/15 13:55	1
4-Bromofluorobenzene (Surr)	80		70 - 130		03/24/15 13:55	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**1.9**		0.10	0.051	mg/L			03/19/15 19:07	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.010**		0.010	0.00050	mg/L		03/19/15 16:25	03/23/15 18:14	1

Client Sample ID: IRA-14(3)-031815

Lab Sample ID: 550-41834-4

Date Collected: 03/18/15 10:20

Matrix: Water

Date Received: 03/18/15 14:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 14:28	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 14:28	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 14:28	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 14:28	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 14:28	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 14:28	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 14:28	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 14:28	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 14:28	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 14:28	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 14:28	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 14:28	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 14:28	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 14:28	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 14:28	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/24/15 14:28	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 14:28	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 14:28	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 14:28	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 14:28	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 14:28	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 14:28	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 14:28	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 14:28	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 14:28	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 14:28	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 14:28	1

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Client Sample ID: IRA-14(3)-031815
Date Collected: 03/18/15 10:20
Date Received: 03/18/15 14:47

Lab Sample ID: 550-41834-4
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 14:28	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 14:28	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/24/15 14:28	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/24/15 14:28	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 14:28	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 14:28	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 14:28	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 14:28	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 14:28	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 14:28	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 14:28	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 14:28	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 14:28	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 14:28	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 14:28	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 14:28	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 14:28	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 14:28	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 14:28	1
Methyl tert-butyl ether	**0.25**	**E4**	0.50	0.22	ug/L			03/24/15 14:28	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/24/15 14:28	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 14:28	1
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 14:28	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 14:28	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 14:28	1
Tetrachloroethene	**0.35**	**E4**	0.50	0.18	ug/L			03/24/15 14:28	1
Toluene	ND	E8	0.50	0.28	ug/L			03/24/15 14:28	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/24/15 14:28	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/24/15 14:28	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 14:28	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 14:28	1
Trichloroethene	**0.71**		0.50	0.24	ug/L			03/24/15 14:28	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 14:28	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 14:28	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 14:28	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 14:28	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 14:28	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 14:28	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 14:28	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 14:28	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 14:28	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 14:28	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 14:28*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 14:28*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/24/15 14:28*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/24/15 14:28*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/24/15 14:28*	*1*

Client Sample ID: IRA-14(3)-031815

Lab Sample ID: 550-41834-4

Date Collected: 03/18/15 10:20

Matrix: Water

Date Received: 03/18/15 14:47

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*03/24/15 14:28*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/24/15 14:28*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/24/15 14:28*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.42**	**E4**	0.50	0.051	mg/L			03/26/15 07:12	1
Chloride	**130**	**D2**	40	5.8	mg/L			03/26/15 07:30	20
Nitrate as N	**5.5**	**H1**	0.10	0.051	mg/L			03/26/15 07:12	1
Sulfate	**230**	**D2**	40	4.3	mg/L			03/26/15 07:30	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.16**		0.050	0.0049	mg/L		03/19/15 16:25	03/23/15 18:17	1
Calcium	**75**		2.0	0.014	mg/L		03/19/15 16:25	03/23/15 18:17	1
Magnesium	**3.1**		2.0	0.017	mg/L		03/19/15 16:25	03/23/15 18:17	1
Potassium	**2.5**		0.50	0.067	mg/L		03/19/15 16:25	03/23/15 18:17	1
Sodium	**140**		0.50	0.15	mg/L		03/19/15 16:25	03/23/15 18:17	1
Chromium	**0.0015**	**E4**	0.010	0.00050	mg/L		03/19/15 16:25	03/23/15 18:17	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**110**		6.0	6.0	mg/L			03/24/15 09:34	1
Bicarbonate Alkalinity as CaCO3	**110**		6.0	6.0	mg/L			03/24/15 09:34	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 09:34	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/24/15 09:34	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 09:34	1

Client Sample ID: IRA-14(4)-031815

Lab Sample ID: 550-41834-5

Date Collected: 03/18/15 10:40

Matrix: Water

Date Received: 03/18/15 14:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 15:01	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 15:01	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 15:01	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 15:01	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 15:01	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 15:01	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 15:01	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 15:01	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 15:01	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 15:01	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 15:01	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 15:01	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 15:01	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 15:01	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 15:01	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/24/15 15:01	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 15:01	1

Client Sample ID: IRA-14(4)-031815

Lab Sample ID: 550-41834-5

Date Collected: 03/18/15 10:40

Matrix: Water

Date Received: 03/18/15 14:47

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 15:01	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 15:01	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 15:01	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 15:01	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 15:01	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 15:01	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 15:01	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 15:01	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 15:01	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 15:01	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 15:01	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 15:01	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/24/15 15:01	1
cis-1,2-Dichloroethene	**1.8**		0.50	0.21	ug/L			03/24/15 15:01	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 15:01	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 15:01	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 15:01	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 15:01	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 15:01	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 15:01	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 15:01	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 15:01	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 15:01	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 15:01	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 15:01	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 15:01	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 15:01	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 15:01	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 15:01	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/24/15 15:01	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/24/15 15:01	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 15:01	1
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 15:01	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 15:01	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 15:01	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/24/15 15:01	1
Toluene	ND	E8	0.50	0.28	ug/L			03/24/15 15:01	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/24/15 15:01	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/24/15 15:01	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 15:01	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 15:01	1
Trichloroethene	**4.3**		0.50	0.24	ug/L			03/24/15 15:01	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 15:01	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 15:01	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 15:01	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 15:01	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 15:01	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 15:01	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 15:01	1

Client Sample ID: IRA-14(4)-031815

Lab Sample ID: 550-41834-5

Date Collected: 03/18/15 10:40

Matrix: Water

Date Received: 03/18/15 14:47

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 15:01	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 15:01	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 15:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 15:01*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 15:01*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/24/15 15:01*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/24/15 15:01*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/24/15 15:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*03/24/15 15:01*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*03/24/15 15:01*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/24/15 15:01*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.064**	**E4**	0.10	0.051	mg/L			03/19/15 19:35	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.064**		0.010	0.00050	mg/L		03/19/15 16:25	03/23/15 18:20	1

Client Sample ID: IRA-14(4)-031815-DUP

Lab Sample ID: 550-41834-6

Date Collected: 03/18/15 10:40

Matrix: Water

Date Received: 03/18/15 14:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 15:33	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 15:33	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 15:33	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 15:33	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 15:33	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 15:33	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 15:33	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 15:33	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 15:33	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 15:33	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 15:33	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 15:33	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 15:33	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 15:33	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 15:33	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/24/15 15:33	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 15:33	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 15:33	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 15:33	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 15:33	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 15:33	1

Client Sample ID: IRA-14(4)-031815-DUP
Date Collected: 03/18/15 10:40
Date Received: 03/18/15 14:47

Lab Sample ID: 550-41834-6
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 15:33	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 15:33	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 15:33	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 15:33	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 15:33	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 15:33	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 15:33	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 15:33	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/24/15 15:33	1
cis-1,2-Dichloroethene	**1.9**		0.50	0.21	ug/L			03/24/15 15:33	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 15:33	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 15:33	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 15:33	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 15:33	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 15:33	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 15:33	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 15:33	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 15:33	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 15:33	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 15:33	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 15:33	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 15:33	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 15:33	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 15:33	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 15:33	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/24/15 15:33	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/24/15 15:33	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 15:33	1
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 15:33	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 15:33	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 15:33	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/24/15 15:33	1
Toluene	ND	E8	0.50	0.28	ug/L			03/24/15 15:33	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/24/15 15:33	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/24/15 15:33	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 15:33	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 15:33	1
Trichloroethene	**3.6**		0.50	0.24	ug/L			03/24/15 15:33	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 15:33	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 15:33	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 15:33	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 15:33	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 15:33	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 15:33	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 15:33	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 15:33	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 15:33	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 15:33	1

Client Sample ID: IRA-14(4)-031815-DUP

Lab Sample ID: 550-41834-6

Date Collected: 03/18/15 10:40

Matrix: Water

Date Received: 03/18/15 14:47

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 15:33*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 15:33*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/24/15 15:33*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/24/15 15:33*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/24/15 15:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*03/24/15 15:33*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*03/24/15 15:33*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*03/24/15 15:33*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.059**	**E4**	0.10	0.051	mg/L			03/19/15 20:03	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.0035**	**E4**	0.010	0.00050	mg/L		03/19/15 16:25	03/23/15 18:23	1

Client Sample ID: TB

Lab Sample ID: 550-41834-7

Date Collected: 03/18/15 13:51

Matrix: Water

Date Received: 03/18/15 14:47

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 16:05	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 16:05	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 16:05	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 16:05	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 16:05	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 16:05	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 16:05	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 16:05	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 16:05	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 16:05	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 16:05	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 16:05	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 16:05	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 16:05	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 16:05	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/24/15 16:05	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 16:05	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 16:05	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 16:05	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 16:05	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 16:05	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 16:05	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 16:05	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 16:05	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 16:05	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 16:05	1

Client Sample ID: TB

Lab Sample ID: 550-41834-7

Date Collected: 03/18/15 13:51

Matrix: Water

Date Received: 03/18/15 14:47

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 16:05	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 16:05	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 16:05	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/24/15 16:05	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/24/15 16:05	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 16:05	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 16:05	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 16:05	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 16:05	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 16:05	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 16:05	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 16:05	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 16:05	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 16:05	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 16:05	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 16:05	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 16:05	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 16:05	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 16:05	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 16:05	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/24/15 16:05	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/24/15 16:05	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 16:05	1
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 16:05	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 16:05	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 16:05	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/24/15 16:05	1
Toluene	ND	E8	0.50	0.28	ug/L			03/24/15 16:05	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/24/15 16:05	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/24/15 16:05	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 16:05	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 16:05	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/24/15 16:05	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 16:05	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 16:05	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 16:05	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 16:05	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 16:05	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 16:05	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 16:05	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 16:05	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 16:05	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 16:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 16:05*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 16:05*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/24/15 16:05*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/24/15 16:05*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/24/15 16:05*	*1*

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Client Sample ID: TB

Lab Sample ID: 550-41834-7

Date Collected: 03/18/15 13:51

Matrix: Water

Date Received: 03/18/15 14:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		70 - 130		03/24/15 16:05	1
Toluene-d8 (Surr)	93		70 - 130		03/24/15 16:05	1
4-Bromofluorobenzene (Surr)	95		70 - 130		03/24/15 16:05	1

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41834-1	IRA-30-031815	91	91	95
550-41834-1 MS	IRA-30-031815	97	93	84
550-41834-1 MSD	IRA-30-031815	105	105	95
550-41834-2	IRA-40-031815	101	89	94
550-41834-2	IRA-40-031815	93	83	83
550-41834-2 MS	IRA-40-031815	94	94	87
550-41834-2 MSD	IRA-40-031815	95	97	85
550-41834-3	IRA-14(2)-031815	109	94	80
550-41834-4	IRA-14(3)-031815	105	94	91
550-41834-5	IRA-14(4)-031815	106	101	87
550-41834-6	IRA-14(4)-031815-DUP	107	92	92
550-41834-7	TB	109	93	95
LCS 550-59276/3	Lab Control Sample	109	112	100
LCS 550-59502/3	Lab Control Sample	90	92	86
LCSD 550-59276/4	Lab Control Sample Dup	100	107	98
LCSD 550-59502/4	Lab Control Sample Dup	89	96	87
MB 550-59276/6	Method Blank	97	88	96
MB 550-59502/5	Method Blank	93	88	82

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-59276/6
Matrix: Water
Analysis Batch: 59276

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8 V1	10	7.3	ug/L			03/24/15 07:20	1
Benzene	ND	E8	0.50	0.12	ug/L			03/24/15 07:20	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 07:20	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/24/15 07:20	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/24/15 07:20	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/24/15 07:20	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/24/15 07:20	1
2-Butanone (MEK)	ND	E8 V1	5.0	2.2	ug/L			03/24/15 07:20	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 07:20	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/24/15 07:20	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 07:20	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/24/15 07:20	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/24/15 07:20	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 07:20	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/24/15 07:20	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/24/15 07:20	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/24/15 07:20	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/24/15 07:20	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/24/15 07:20	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/24/15 07:20	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/24/15 07:20	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/24/15 07:20	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/24/15 07:20	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/24/15 07:20	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/24/15 07:20	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/24/15 07:20	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 07:20	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/24/15 07:20	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 07:20	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/24/15 07:20	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/24/15 07:20	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/24/15 07:20	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 07:20	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/24/15 07:20	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/24/15 07:20	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/24/15 07:20	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/24/15 07:20	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/24/15 07:20	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/24/15 07:20	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/24/15 07:20	1
2-Hexanone	ND	E8 V1	5.0	1.5	ug/L			03/24/15 07:20	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/24/15 07:20	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/24/15 07:20	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/24/15 07:20	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/24/15 07:20	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/24/15 07:20	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/24/15 07:20	1
Naphthalene	0.672	E4	2.5	0.51	ug/L			03/24/15 07:20	1

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

Lab Sample ID: MB 550-59276/6
Matrix: Water
Analysis Batch: 59276

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 07:20	1
Styrene	ND	E8	0.50	0.17	ug/L			03/24/15 07:20	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/24/15 07:20	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/24/15 07:20	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/24/15 07:20	1
Toluene	0.347	E4	0.50	0.28	ug/L			03/24/15 07:20	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/24/15 07:20	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/24/15 07:20	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/24/15 07:20	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/24/15 07:20	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/24/15 07:20	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/24/15 07:20	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/24/15 07:20	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/24/15 07:20	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/24/15 07:20	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/24/15 07:20	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/24/15 07:20	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/24/15 07:20	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/24/15 07:20	1
Hexane	ND	E8	2.0	1.6	ug/L			03/24/15 07:20	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/24/15 07:20	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/24/15 07:20*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/24/15 07:20*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/24/15 07:20*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/24/15 07:20*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/24/15 07:20*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*03/24/15 07:20*	*1*
Toluene-d8 (Surr)	*88*		*70 - 130*		*03/24/15 07:20*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*03/24/15 07:20*	*1*

Lab Sample ID: LCS 550-59276/3
Matrix: Water
Analysis Batch: 59276

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	33.6	V1	ug/L		134	38 - 150
Benzene	25.0	27.4		ug/L		109	70 - 130
Bromobenzene	25.0	27.6		ug/L		110	70 - 130
Chlorobromomethane	25.0	25.9		ug/L		104	70 - 130
Dichlorobromomethane	25.0	28.0		ug/L		112	70 - 130
Bromoform	25.0	25.3		ug/L		101	69 - 129
Bromomethane	25.0	30.9		ug/L		123	57 - 138
2-Butanone (MEK)	25.0	32.2	V1	ug/L		129	53 - 150

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

Lab Sample ID: LCS 550-59276/3
Matrix: Water
Analysis Batch: 59276

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	25.0	27.5		ug/L		110	70 - 130
sec-Butylbenzene	25.0	28.4		ug/L		114	70 - 130
Carbon disulfide	25.0	29.5		ug/L		118	64 - 145
Carbon tetrachloride	25.0	28.7		ug/L		115	70 - 143
Chlorobenzene	25.0	27.4		ug/L		110	70 - 130
Chloroethane	25.0	26.8		ug/L		107	66 - 131
Chloroform	25.0	28.2		ug/L		113	70 - 130
Chloromethane	25.0	28.7		ug/L		115	56 - 129
2-Chlorotoluene	25.0	28.4		ug/L		113	70 - 130
4-Chlorotoluene	25.0	28.8		ug/L		115	70 - 130
Chlorodibromomethane	25.0	25.0		ug/L		100	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	23.0		ug/L		92	63 - 146
Ethylene Dibromide	25.0	27.6		ug/L		110	70 - 130
Dibromomethane	25.0	25.3		ug/L		101	70 - 130
1,2-Dichlorobenzene	25.0	28.4		ug/L		114	70 - 130
1,3-Dichlorobenzene	25.0	28.3		ug/L		113	70 - 130
1,4-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130
Dichlorodifluoromethane	25.0	29.5		ug/L		118	46 - 144
1,1-Dichloroethane	25.0	28.4		ug/L		114	70 - 130
1,2-Dichloroethane	25.0	26.6		ug/L		106	66 - 139
1,1-Dichloroethene	25.0	30.4		ug/L		122	63 - 131
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	70 - 130
trans-1,2-Dichloroethene	25.0	29.2		ug/L		117	69 - 127
1,2-Dichloropropane	25.0	27.3		ug/L		109	70 - 130
1,3-Dichloropropane	25.0	26.4		ug/L		106	70 - 130
2,2-Dichloropropane	25.0	29.7		ug/L		119	69 - 139
1,1-Dichloropropene	25.0	28.2		ug/L		113	70 - 130
cis-1,3-Dichloropropene	25.0	26.6		ug/L		107	70 - 130
trans-1,3-Dichloropropene	25.0	26.1		ug/L		105	70 - 130
Ethylbenzene	25.0	27.2		ug/L		109	70 - 130
Hexachlorobutadiene	25.0	26.5		ug/L		106	76 - 145
2-Hexanone	25.0	28.1	V1	ug/L		112	55 - 150
Iodomethane	25.0	30.8		ug/L		123	70 - 130
Isopropylbenzene	25.0	28.2		ug/L		113	88 - 141
4-Isopropyltoluene	25.0	27.3		ug/L		109	70 - 130
Methylene Chloride	25.0	28.1		ug/L		112	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	24.7		ug/L		99	64 - 142
Methyl tert-butyl ether	25.0	28.1		ug/L		113	70 - 130
Naphthalene	25.0	25.9		ug/L		104	78 - 143
N-Propylbenzene	25.0	28.9		ug/L		115	70 - 130
Styrene	25.0	26.0		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	25.0	27.7		ug/L		111	70 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Toluene	25.0	27.0		ug/L		108	70 - 130
1,2,3-Trichlorobenzene	25.0	25.1		ug/L		100	79 - 139
1,2,4-Trichlorobenzene	25.0	26.7		ug/L		107	80 - 137
1,1,1-Trichloroethane	25.0	29.5		ug/L		118	71 - 131

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

Lab Sample ID: LCS 550-59276/3
Matrix: Water
Analysis Batch: 59276

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	25.0	28.0		ug/L		112	70 - 130
Trichloroethene	25.0	28.4		ug/L		114	70 - 130
Trichlorofluoromethane	25.0	30.2		ug/L		121	69 - 150
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	70 - 130
1,2,4-Trimethylbenzene	25.0	27.9		ug/L		112	70 - 130
1,3,5-Trimethylbenzene	25.0	28.0		ug/L		112	70 - 130
Vinyl acetate	25.0	25.0		ug/L		100	67 - 148
Vinyl chloride	25.0	29.9		ug/L		120	65 - 137
Xylenes, Total	50.0	52.9		ug/L		106	70 - 130
Butadiene	25.0	29.4		ug/L		118	12 - 150
Hexane	25.0	23.5		ug/L		94	54 - 132
m-Xylene & p-Xylene	25.0	26.3		ug/L		105	70 - 130
o-Xylene	25.0	26.6		ug/L		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*112*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 550-59276/4
Matrix: Water
Analysis Batch: 59276

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	33.6	V1	ug/L		134	38 - 150	0	35
Benzene	25.0	26.1		ug/L		104	70 - 130	5	20
Bromobenzene	25.0	29.1		ug/L		116	70 - 130	5	20
Chlorobromomethane	25.0	24.9		ug/L		99	70 - 130	4	20
Dichlorobromomethane	25.0	25.9		ug/L		104	70 - 130	8	20
Bromoform	25.0	24.9		ug/L		100	69 - 129	2	20
Bromomethane	25.0	28.6		ug/L		114	57 - 138	8	20
2-Butanone (MEK)	25.0	32.2	V1	ug/L		129	53 - 150	0	35
n-Butylbenzene	25.0	25.9		ug/L		104	70 - 130	6	20
sec-Butylbenzene	25.0	27.4		ug/L		110	70 - 130	4	20
Carbon disulfide	25.0	27.0		ug/L		108	64 - 145	9	33
Carbon tetrachloride	25.0	27.4		ug/L		110	70 - 143	5	20
Chlorobenzene	25.0	27.2		ug/L		109	70 - 130	1	20
Chloroethane	25.0	25.6		ug/L		102	66 - 131	5	20
Chloroform	25.0	26.8		ug/L		107	70 - 130	5	20
Chloromethane	25.0	26.0		ug/L		104	56 - 129	10	20
2-Chlorotoluene	25.0	26.9		ug/L		108	70 - 130	5	20
4-Chlorotoluene	25.0	27.0		ug/L		108	70 - 130	6	20
Chlorodibromomethane	25.0	23.8		ug/L		95	70 - 130	5	20
1,2-Dibromo-3-Chloropropane	25.0	27.2		ug/L		109	63 - 146	17	22
Ethylene Dibromide	25.0	26.1		ug/L		104	70 - 130	5	20
Dibromomethane	25.0	23.7		ug/L		95	70 - 130	7	20
1,2-Dichlorobenzene	25.0	27.1		ug/L		109	70 - 130	5	20
1,3-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130	7	20

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

Lab Sample ID: LCSD 550-59276/4
Matrix: Water
Analysis Batch: 59276

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130	0	20
Dichlorodifluoromethane	25.0	27.8		ug/L		111	46 - 144	6	23
1,1-Dichloroethane	25.0	26.2		ug/L		105	70 - 130	8	20
1,2-Dichloroethane	25.0	25.7		ug/L		103	66 - 139	4	20
1,1-Dichloroethene	25.0	29.6		ug/L		118	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	27.4		ug/L		109	70 - 130	0	20
trans-1,2-Dichloroethene	25.0	26.4		ug/L		106	69 - 127	10	20
1,2-Dichloropropane	25.0	25.4		ug/L		101	70 - 130	7	20
1,3-Dichloropropane	25.0	23.0		ug/L		92	70 - 130	14	20
2,2-Dichloropropane	25.0	27.9		ug/L		112	69 - 139	6	20
1,1-Dichloropropene	25.0	27.3		ug/L		109	70 - 130	3	20
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	5	20
trans-1,3-Dichloropropene	25.0	23.4		ug/L		94	70 - 130	11	20
Ethylbenzene	25.0	26.0		ug/L		104	70 - 130	5	20
Hexachlorobutadiene	25.0	25.3		ug/L		101	76 - 145	5	20
2-Hexanone	25.0	24.7	V1	ug/L		99	55 - 150	13	35
Iodomethane	25.0	27.1		ug/L		108	70 - 130	13	20
Isopropylbenzene	25.0	28.7		ug/L		115	88 - 141	2	20
4-Isopropyltoluene	25.0	25.5		ug/L		102	70 - 130	7	20
Methylene Chloride	25.0	25.2		ug/L		101	63 - 128	11	21
4-Methyl-2-pentanone (MIBK)	25.0	24.1		ug/L		96	64 - 142	2	25
Methyl tert-butyl ether	25.0	24.5		ug/L		98	70 - 130	14	20
Naphthalene	25.0	25.5		ug/L		102	78 - 143	1	20
N-Propylbenzene	25.0	27.4		ug/L		109	70 - 130	5	20
Styrene	25.0	24.5		ug/L		98	70 - 130	6	20
1,1,1,2-Tetrachloroethane	25.0	24.4		ug/L		97	70 - 130	7	20
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	70 - 130	2	20
Tetrachloroethene	25.0	26.3		ug/L		105	70 - 130	5	20
Toluene	25.0	24.0		ug/L		96	70 - 130	12	20
1,2,3-Trichlorobenzene	25.0	22.8		ug/L		91	79 - 139	10	20
1,2,4-Trichlorobenzene	25.0	24.1		ug/L		96	80 - 137	10	20
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	71 - 131	8	20
1,1,2-Trichloroethane	25.0	26.1		ug/L		104	70 - 130	7	20
Trichloroethene	25.0	27.2		ug/L		109	70 - 130	4	20
Trichlorofluoromethane	25.0	27.5		ug/L		110	69 - 150	9	22
1,2,3-Trichloropropane	25.0	25.7		ug/L		103	70 - 130	2	20
1,2,4-Trimethylbenzene	25.0	27.6		ug/L		110	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	27.5		ug/L		110	70 - 130	2	20
Vinyl acetate	25.0	23.7		ug/L		95	67 - 148	5	22
Vinyl chloride	25.0	27.8		ug/L		111	65 - 137	7	20
Xylenes, Total	50.0	51.1		ug/L		102	70 - 130	3	20
Butadiene	25.0	27.6		ug/L		110	12 - 150	6	35
Hexane	25.0	27.1		ug/L		108	54 - 132	14	28
m-Xylene & p-Xylene	25.0	25.3		ug/L		101	70 - 130	4	20
o-Xylene	25.0	25.8		ug/L		103	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*70 - 130*

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

Lab Sample ID: LCSD 550-59276/4
Matrix: Water
Analysis Batch: 59276

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 550-41834-1 MS
Matrix: Water
Analysis Batch: 59276

Client Sample ID: IRA-30-031815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8 V1	25.0	13.6	V1	ug/L		54	29 - 139
Benzene	ND	E8	25.0	24.0		ug/L		96	68 - 131
Bromobenzene	ND	E8	25.0	24.3		ug/L		97	70 - 130
Chlorobromomethane	ND	E8	25.0	24.7		ug/L		99	64 - 132
Dichlorobromomethane	ND	E8	25.0	25.8		ug/L		103	63 - 138
Bromoform	ND	E8	25.0	22.4		ug/L		90	60 - 128
Bromomethane	ND	E8	25.0	28.5		ug/L		114	47 - 144
2-Butanone (MEK)	ND	E8 V1	25.0	21.5	V1	ug/L		86	31 - 143
n-Butylbenzene	ND	E8	25.0	22.8		ug/L		91	69 - 140
sec-Butylbenzene	ND	E8	25.0	24.4		ug/L		97	72 - 136
Carbon disulfide	ND	E8	25.0	26.8		ug/L		107	45 - 150
Carbon tetrachloride	ND	E8	25.0	25.3		ug/L		101	65 - 147
Chlorobenzene	ND	E8	25.0	25.2		ug/L		101	70 - 130
Chloroethane	ND	E8	25.0	26.9		ug/L		108	57 - 139
Chloroform	ND	E8	25.0	27.3		ug/L		109	63 - 131
Chloromethane	ND	E8	25.0	25.3		ug/L		101	47 - 134
2-Chlorotoluene	ND	E8	25.0	24.6		ug/L		99	71 - 131
4-Chlorotoluene	ND	E8	25.0	26.5		ug/L		106	70 - 130
Chlorodibromomethane	ND	E8	25.0	24.3		ug/L		97	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	26.2		ug/L		105	53 - 145
Ethylene Dibromide	ND	E8	25.0	23.5		ug/L		94	70 - 130
Dibromomethane	ND	E8	25.0	22.6		ug/L		90	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	24.5		ug/L		98	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	24.8		ug/L		99	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	23.2		ug/L		93	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	27.8		ug/L		111	40 - 148
1,1-Dichloroethane	ND	E8	25.0	26.9		ug/L		107	62 - 130
1,2-Dichloroethane	ND	E8	25.0	24.9		ug/L		100	54 - 147
1,1-Dichloroethene	7.1		25.0	32.3		ug/L		101	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	27.3		ug/L		109	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	27.1		ug/L		109	62 - 131
1,2-Dichloropropane	ND	E8	25.0	25.8		ug/L		103	68 - 126
1,3-Dichloropropane	ND	E8	25.0	24.2		ug/L		97	68 - 129
2,2-Dichloropropane	ND	E8	25.0	27.6		ug/L		110	60 - 146
1,1-Dichloropropene	ND	E8	25.0	25.7		ug/L		103	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	24.4		ug/L		98	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	22.9		ug/L		92	58 - 136
Ethylbenzene	ND	E8	25.0	24.9		ug/L		100	74 - 134
Hexachlorobutadiene	ND	E8	25.0	21.9		ug/L		88	69 - 150
2-Hexanone	ND	E8 V1	25.0	16.5	V1	ug/L		66	40 - 142

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

Lab Sample ID: 550-41834-1 MS — **Client Sample ID: IRA-30-031815**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iodomethane	ND	E8	25.0	27.7		ug/L		111	53 - 150
Isopropylbenzene	ND	E8	25.0	25.2		ug/L		101	80 - 146
4-Isopropyltoluene	ND	E8	25.0	23.1		ug/L		92	70 - 133
Methylene Chloride	ND	E8	25.0	28.4		ug/L		114	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	19.3		ug/L		77	52 - 143
Methyl tert-butyl ether	0.25	E4	25.0	26.2		ug/L		104	67 - 138
Naphthalene	ND	E8	25.0	20.4		ug/L		82	67 - 146
N-Propylbenzene	ND	E8	25.0	24.7		ug/L		99	74 - 140
Styrene	ND	E8	25.0	23.6		ug/L		94	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	24.8		ug/L		99	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	25.2		ug/L		101	63 - 137
Tetrachloroethene	ND	E8	25.0	24.3		ug/L		97	67 - 131
Toluene	0.69		25.0	24.7		ug/L		96	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	20.9		ug/L		84	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	21.6		ug/L		87	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	26.8		ug/L		107	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	25.8		ug/L		103	63 - 132
Trichloroethene	71	M2	25.0	83.2	M2	ug/L		50	66 - 132
Trichlorofluoromethane	ND	E8	25.0	26.0		ug/L		104	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	24.1		ug/L		96	68 - 130
1,2,4-Trimethylbenzene	0.25	E4	25.0	25.0		ug/L		99	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	25.8		ug/L		103	66 - 137
Vinyl acetate	ND	E8	25.0	24.0		ug/L		96	47 - 150
Vinyl chloride	ND	E8	25.0	26.2		ug/L		105	55 - 146
Xylenes, Total	ND	E8	50.0	45.7		ug/L		91	68 - 131
Butadiene	ND	E8	25.0	26.5		ug/L		106	10 - 150
Hexane	ND	E8	25.0	27.0		ug/L		108	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	22.6		ug/L		91	58 - 138
o-Xylene	ND	E8	25.0	23.1		ug/L		92	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: 550-41834-1 MSD — **Client Sample ID: IRA-30-031815**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59276

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8 V1	25.0	16.9	V1	ug/L		68	29 - 139	21	35
Benzene	ND	E8	25.0	25.8		ug/L		103	68 - 131	7	32
Bromobenzene	ND	E8	25.0	27.6		ug/L		110	70 - 130	13	28
Chlorobromomethane	ND	E8	25.0	27.9		ug/L		112	64 - 132	12	35
Dichlorobromomethane	ND	E8	25.0	28.6		ug/L		114	63 - 138	10	31
Bromoform	ND	E8	25.0	24.7		ug/L		99	60 - 128	10	31
Bromomethane	ND	E8	25.0	33.2		ug/L		133	47 - 144	15	35
2-Butanone (MEK)	ND	E8 V1	25.0	20.7	V1	ug/L		83	31 - 143	4	35

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

Lab Sample ID: 550-41834-1 MSD
Matrix: Water
Analysis Batch: 59276

Client Sample ID: IRA-30-031815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
n-Butylbenzene	ND	E8	25.0	26.0		ug/L		104	69 - 140	13	32
sec-Butylbenzene	ND	E8	25.0	25.9		ug/L		103	72 - 136	6	33
Carbon disulfide	ND	E8	25.0	30.4		ug/L		122	45 - 150	13	35
Carbon tetrachloride	ND	E8	25.0	26.6		ug/L		106	65 - 147	5	35
Chlorobenzene	ND	E8	25.0	27.4		ug/L		110	70 - 130	8	30
Chloroethane	ND	E8	25.0	29.1		ug/L		116	57 - 139	8	35
Chloroform	ND	E8	25.0	30.6		ug/L		122	63 - 131	11	33
Chloromethane	ND	E8	25.0	28.4		ug/L		114	47 - 134	12	35
2-Chlorotoluene	ND	E8	25.0	27.3		ug/L		109	71 - 131	10	29
4-Chlorotoluene	ND	E8	25.0	28.4		ug/L		114	70 - 130	7	28
Chlorodibromomethane	ND	E8	25.0	26.5		ug/L		106	65 - 134	9	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	25.3		ug/L		101	53 - 145	4	35
Ethylene Dibromide	ND	E8	25.0	27.7		ug/L		111	70 - 130	16	33
Dibromomethane	ND	E8	25.0	25.1		ug/L		100	66 - 136	11	35
1,2-Dichlorobenzene	ND	E8	25.0	28.0		ug/L		112	70 - 130	13	27
1,3-Dichlorobenzene	ND	E8	25.0	25.6		ug/L		102	70 - 130	3	28
1,4-Dichlorobenzene	ND	E8	25.0	26.0		ug/L		104	70 - 130	11	26
Dichlorodifluoromethane	ND	E8	25.0	29.7		ug/L		119	40 - 148	7	35
1,1-Dichloroethane	ND	E8	25.0	29.9		ug/L		120	62 - 130	11	34
1,2-Dichloroethane	ND	E8	25.0	29.6		ug/L		118	54 - 147	17	35
1,1-Dichloroethene	7.1		25.0	36.1		ug/L		116	57 - 137	11	35
cis-1,2-Dichloroethene	ND	E8	25.0	29.7		ug/L		119	65 - 127	8	34
trans-1,2-Dichloroethene	ND	E8	25.0	30.3		ug/L		121	62 - 131	11	35
1,2-Dichloropropane	ND	E8	25.0	27.3		ug/L		109	68 - 126	6	32
1,3-Dichloropropane	ND	E8	25.0	27.9		ug/L		112	68 - 129	14	33
2,2-Dichloropropane	ND	E8	25.0	29.4		ug/L		118	60 - 146	6	35
1,1-Dichloropropene	ND	E8	25.0	27.9		ug/L		112	64 - 134	8	34
cis-1,3-Dichloropropene	ND	E8	25.0	26.4		ug/L		105	63 - 135	8	35
trans-1,3-Dichloropropene	ND	E8	25.0	25.9		ug/L		104	58 - 136	12	35
Ethylbenzene	ND	E8	25.0	26.1		ug/L		104	74 - 134	5	32
Hexachlorobutadiene	ND	E8	25.0	23.8		ug/L		95	69 - 150	9	32
2-Hexanone	ND	E8 V1	25.0	20.0	V1	ug/L		80	40 - 142	19	35
Iodomethane	ND	E8	25.0	30.4		ug/L		121	53 - 150	9	35
Isopropylbenzene	ND	E8	25.0	27.3		ug/L		109	80 - 146	8	32
4-Isopropyltoluene	ND	E8	25.0	25.6		ug/L		102	70 - 133	10	32
Methylene Chloride	ND	E8	25.0	30.2		ug/L		121	55 - 133	6	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	25.1		ug/L		101	52 - 143	26	35
Methyl tert-butyl ether	0.25	E4	25.0	31.2		ug/L		124	67 - 138	18	21
Naphthalene	ND	E8	25.0	24.9		ug/L		99	67 - 146	20	29
N-Propylbenzene	ND	E8	25.0	27.3		ug/L		109	74 - 140	10	32
Styrene	ND	E8	25.0	24.4		ug/L		98	43 - 144	3	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.7		ug/L		103	70 - 130	3	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	28.6		ug/L		114	63 - 137	13	32
Tetrachloroethene	ND	E8	25.0	25.7		ug/L		103	67 - 131	6	31
Toluene	0.69		25.0	26.7		ug/L		104	65 - 138	8	33
1,2,3-Trichlorobenzene	ND	E8	25.0	25.5		ug/L		102	74 - 139	20	26
1,2,4-Trichlorobenzene	ND	E8	25.0	24.5		ug/L		98	74 - 138	13	26
1,1,1-Trichloroethane	ND	E8	25.0	30.2		ug/L		121	64 - 138	12	35

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

Lab Sample ID: 550-41834-1 MSD | **Client Sample ID: IRA-30-031815**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 59276

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND	E8	25.0	28.3		ug/L		113	63 - 132	9	35
Trichloroethene	71	M2	25.0	93.4		ug/L		91	66 - 132	12	29
Trichlorofluoromethane	ND	E8	25.0	29.7		ug/L		119	62 - 150	13	35
1,2,3-Trichloropropane	ND	E8	25.0	28.2		ug/L		113	68 - 130	16	32
1,2,4-Trimethylbenzene	0.25	E4	25.0	27.4		ug/L		108	63 - 135	9	31
1,3,5-Trimethylbenzene	ND	E8	25.0	27.8		ug/L		111	66 - 137	8	30
Vinyl acetate	ND	E8	25.0	28.1		ug/L		113	47 - 150	16	35
Vinyl chloride	ND	E8	25.0	29.1		ug/L		117	55 - 146	11	35
Xylenes, Total	ND	E8	50.0	50.3		ug/L		101	68 - 131	10	31
Butadiene	ND	E8	25.0	30.2		ug/L		121	10 - 150	13	35
Hexane	ND	E8	25.0	29.9		ug/L		120	46 - 139	10	35
m-Xylene & p-Xylene	ND	E8	25.0	23.7		ug/L		95	58 - 138	4	29
o-Xylene	ND	E8	25.0	26.6		ug/L		107	66 - 137	14	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 550-59502/5 | **Client Sample ID: Method Blank**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 59502

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/25/15 19:23	1
Benzene	ND	E8	0.50	0.12	ug/L			03/25/15 19:23	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/25/15 19:23	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/25/15 19:23	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/25/15 19:23	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/25/15 19:23	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/25/15 19:23	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/25/15 19:23	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/25/15 19:23	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/25/15 19:23	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/25/15 19:23	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/25/15 19:23	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/25/15 19:23	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/25/15 19:23	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/25/15 19:23	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/25/15 19:23	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/25/15 19:23	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/25/15 19:23	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/25/15 19:23	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/25/15 19:23	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/25/15 19:23	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/25/15 19:23	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/25/15 19:23	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/25/15 19:23	1

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

Lab Sample ID: MB 550-59502/5
Matrix: Water
Analysis Batch: 59502

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/25/15 19:23	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/25/15 19:23	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/25/15 19:23	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/25/15 19:23	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/25/15 19:23	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/25/15 19:23	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/25/15 19:23	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/25/15 19:23	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/25/15 19:23	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/25/15 19:23	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/25/15 19:23	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/25/15 19:23	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/25/15 19:23	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/25/15 19:23	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/25/15 19:23	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/25/15 19:23	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/25/15 19:23	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/25/15 19:23	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/25/15 19:23	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/25/15 19:23	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/25/15 19:23	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/25/15 19:23	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/25/15 19:23	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/25/15 19:23	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/25/15 19:23	1
Styrene	ND	E8	0.50	0.17	ug/L			03/25/15 19:23	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/25/15 19:23	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/25/15 19:23	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/25/15 19:23	1
Toluene	ND	E8	0.50	0.28	ug/L			03/25/15 19:23	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/25/15 19:23	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/25/15 19:23	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/25/15 19:23	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/25/15 19:23	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/25/15 19:23	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/25/15 19:23	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/25/15 19:23	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/25/15 19:23	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/25/15 19:23	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/25/15 19:23	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/25/15 19:23	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/25/15 19:23	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/25/15 19:23	1
Hexane	ND	E8	2.0	1.6	ug/L			03/25/15 19:23	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/25/15 19:23*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/25/15 19:23*	*1*

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

Lab Sample ID: MB 550-59502/5
Matrix: Water
Analysis Batch: 59502

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

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/25/15 19:23	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/25/15 19:23	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/25/15 19:23	1
2-ethoxy-2-methyl butane TIC	ND	E8 T4	ug/L			919-94-8		03/25/15 19:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	93		70 - 130		03/25/15 19:23	1
Toluene-d8 (Surr)	88		70 - 130		03/25/15 19:23	1
4-Bromofluorobenzene (Surr)	82		70 - 130		03/25/15 19:23	1

Lab Sample ID: LCS 550-59502/3
Matrix: Water
Analysis Batch: 59502

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	35.9		ug/L		143	38 - 150
Benzene	25.0	25.0		ug/L		100	70 - 130
Bromobenzene	25.0	25.2		ug/L		101	70 - 130
Chlorobromomethane	25.0	22.6		ug/L		90	70 - 130
Dichlorobromomethane	25.0	24.4		ug/L		98	70 - 130
Bromoform	25.0	21.8		ug/L		87	69 - 129
Bromomethane	25.0	24.3		ug/L		97	57 - 138
2-Butanone (MEK)	25.0	29.5		ug/L		118	53 - 150
n-Butylbenzene	25.0	27.7		ug/L		111	70 - 130
sec-Butylbenzene	25.0	26.5		ug/L		106	70 - 130
Carbon disulfide	25.0	25.1		ug/L		100	64 - 145
Carbon tetrachloride	25.0	25.6		ug/L		102	70 - 143
Chlorobenzene	25.0	25.5		ug/L		102	70 - 130
Chloroethane	25.0	23.8		ug/L		95	66 - 131
Chloroform	25.0	25.5		ug/L		102	70 - 130
Chloromethane	25.0	24.4		ug/L		97	56 - 129
2-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130
4-Chlorotoluene	25.0	26.2		ug/L		105	70 - 130
Chlorodibromomethane	25.0	23.7		ug/L		95	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	18.9		ug/L		75	63 - 146
Ethylene Dibromide	25.0	23.7		ug/L		95	70 - 130
Dibromomethane	25.0	23.4		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	24.4		ug/L		97	70 - 130
1,3-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144
1,1-Dichloroethane	25.0	24.7		ug/L		99	70 - 130
1,2-Dichloroethane	25.0	23.0		ug/L		92	66 - 139
1,1-Dichloroethene	25.0	26.4		ug/L		106	63 - 131
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 130
trans-1,2-Dichloroethene	25.0	25.4		ug/L		102	69 - 127
1,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 130

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

Lab Sample ID: LCS 550-59502/3
Matrix: Water
Analysis Batch: 59502

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
2,2-Dichloropropane	25.0	30.2		ug/L		121	69 - 139
1,1-Dichloropropene	25.0	26.2		ug/L		105	70 - 130
cis-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 130
trans-1,3-Dichloropropene	25.0	22.2		ug/L		89	70 - 130
Ethylbenzene	25.0	26.9		ug/L		107	70 - 130
Hexachlorobutadiene	25.0	22.6		ug/L		90	76 - 145
2-Hexanone	25.0	30.8		ug/L		123	55 - 150
Iodomethane	25.0	24.2		ug/L		97	70 - 130
Isopropylbenzene	25.0	25.8		ug/L		103	88 - 141
4-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 130
Methylene Chloride	25.0	21.9		ug/L		88	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	24.0		ug/L		96	64 - 142
Methyl tert-butyl ether	25.0	21.7		ug/L		87	70 - 130
Naphthalene	25.0	20.9		ug/L		84	78 - 143
N-Propylbenzene	25.0	27.2		ug/L		109	70 - 130
Styrene	25.0	25.5		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.2		ug/L		93	70 - 130
Tetrachloroethene	25.0	25.2		ug/L		101	70 - 130
Toluene	25.0	24.9		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	25.0	21.1		ug/L		84	79 - 139
1,2,4-Trichlorobenzene	25.0	21.8		ug/L		87	80 - 137
1,1,1-Trichloroethane	25.0	24.7		ug/L		99	71 - 131
1,1,2-Trichloroethane	25.0	23.1		ug/L		92	70 - 130
Trichloroethene	25.0	25.2		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	26.6		ug/L		106	69 - 150
1,2,3-Trichloropropane	25.0	21.1		ug/L		84	70 - 130
1,2,4-Trimethylbenzene	25.0	25.9		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	25.0	26.4		ug/L		105	70 - 130
Vinyl acetate	25.0	23.6		ug/L		94	67 - 148
Vinyl chloride	25.0	26.8		ug/L		107	65 - 137
Xylenes, Total	50.0	51.9		ug/L		104	70 - 130
Butadiene	25.0	25.2		ug/L		101	12 - 150
Hexane	25.0	26.4		ug/L		105	54 - 132
m-Xylene & p-Xylene	25.0	26.1		ug/L		104	70 - 130
o-Xylene	25.0	25.8		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*

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

Lab Sample ID: LCSD 550-59502/4
Matrix: Water
Analysis Batch: 59502

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	40.4	L5	ug/L		162	38 - 150	12	35
Benzene	25.0	24.8		ug/L		99	70 - 130	1	20
Bromobenzene	25.0	24.2		ug/L		97	70 - 130	4	20
Chlorobromomethane	25.0	22.3		ug/L		89	70 - 130	1	20
Dichlorobromomethane	25.0	24.4		ug/L		98	70 - 130	0	20
Bromoform	25.0	21.8		ug/L		87	69 - 129	0	20
Bromomethane	25.0	25.1		ug/L		101	57 - 138	3	20
2-Butanone (MEK)	25.0	34.7		ug/L		139	53 - 150	16	35
n-Butylbenzene	25.0	25.7		ug/L		103	70 - 130	7	20
sec-Butylbenzene	25.0	24.1		ug/L		97	70 - 130	9	20
Carbon disulfide	25.0	25.3		ug/L		101	64 - 145	1	33
Carbon tetrachloride	25.0	25.1		ug/L		100	70 - 143	2	20
Chlorobenzene	25.0	24.1		ug/L		96	70 - 130	6	20
Chloroethane	25.0	24.0		ug/L		96	66 - 131	1	20
Chloroform	25.0	24.2		ug/L		97	70 - 130	5	20
Chloromethane	25.0	24.8		ug/L		99	56 - 129	2	20
2-Chlorotoluene	25.0	24.6		ug/L		99	70 - 130	4	20
4-Chlorotoluene	25.0	24.8		ug/L		99	70 - 130	6	20
Chlorodibromomethane	25.0	23.3		ug/L		93	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	25.0	18.1		ug/L		72	63 - 146	4	22
Ethylene Dibromide	25.0	23.4		ug/L		94	70 - 130	1	20
Dibromomethane	25.0	23.9		ug/L		96	70 - 130	2	20
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	70 - 130	5	20
1,3-Dichlorobenzene	25.0	24.3		ug/L		97	70 - 130	4	20
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	70 - 130	2	20
Dichlorodifluoromethane	25.0	27.4		ug/L		109	46 - 144	4	23
1,1-Dichloroethane	25.0	24.8		ug/L		99	70 - 130	0	20
1,2-Dichloroethane	25.0	24.1		ug/L		96	66 - 139	4	20
1,1-Dichloroethene	25.0	25.6		ug/L		103	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	70 - 130	0	20
trans-1,2-Dichloroethene	25.0	24.6		ug/L		98	69 - 127	3	20
1,2-Dichloropropane	25.0	23.9		ug/L		96	70 - 130	1	20
1,3-Dichloropropane	25.0	23.5		ug/L		94	70 - 130	7	20
2,2-Dichloropropane	25.0	33.5		ug/L		134	69 - 139	10	20
1,1-Dichloropropene	25.0	25.9		ug/L		103	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 130	3	20
trans-1,3-Dichloropropene	25.0	23.4		ug/L		93	70 - 130	5	20
Ethylbenzene	25.0	24.8		ug/L		99	70 - 130	8	20
Hexachlorobutadiene	25.0	20.8		ug/L		83	76 - 145	8	20
2-Hexanone	25.0	31.9		ug/L		127	55 - 150	3	35
Iodomethane	25.0	25.4		ug/L		102	70 - 130	5	20
Isopropylbenzene	25.0	24.4		ug/L		98	88 - 141	6	20
4-Isopropyltoluene	25.0	24.6		ug/L		98	70 - 130	5	20
Methylene Chloride	25.0	21.8		ug/L		87	63 - 128	0	21
4-Methyl-2-pentanone (MIBK)	25.0	24.8		ug/L		99	64 - 142	3	25
Methyl tert-butyl ether	25.0	25.0		ug/L		100	70 - 130	14	20
Naphthalene	25.0	20.3		ug/L		81	78 - 143	3	20
N-Propylbenzene	25.0	25.9		ug/L		103	70 - 130	5	20

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

Lab Sample ID: LCSD 550-59502/4
Matrix: Water
Analysis Batch: 59502

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Styrene	25.0	25.3		ug/L		101	70 - 130	1	20
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	70 - 130	4	20
1,1,2,2-Tetrachloroethane	25.0	22.9		ug/L		92	70 - 130	1	20
Tetrachloroethene	25.0	24.8		ug/L		99	70 - 130	2	20
Toluene	25.0	24.5		ug/L		98	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	20.3		ug/L		81	79 - 139	4	20
1,2,4-Trichlorobenzene	25.0	20.9		ug/L		84	80 - 137	4	20
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	71 - 131	1	20
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	70 - 130	7	20
Trichloroethene	25.0	25.5		ug/L		102	70 - 130	1	20
Trichlorofluoromethane	25.0	26.0		ug/L		104	69 - 150	2	22
1,2,3-Trichloropropane	25.0	20.6		ug/L		82	70 - 130	2	20
1,2,4-Trimethylbenzene	25.0	24.3		ug/L		97	70 - 130	6	20
1,3,5-Trimethylbenzene	25.0	24.5		ug/L		98	70 - 130	7	20
Vinyl acetate	25.0	22.8		ug/L		91	67 - 148	4	22
Vinyl chloride	25.0	26.5		ug/L		106	65 - 137	1	20
Xylenes, Total	50.0	48.3		ug/L		97	70 - 130	7	20
Butadiene	25.0	25.8		ug/L		103	12 - 150	2	35
Hexane	25.0	28.8		ug/L		115	54 - 132	9	28
m-Xylene & p-Xylene	25.0	23.6		ug/L		94	70 - 130	10	20
o-Xylene	25.0	24.7		ug/L		99	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*89*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 550-41834-2 MS
Matrix: Water
Analysis Batch: 59502

Client Sample ID: IRA-40-031815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8 L5	25.0	18.8		ug/L		75	29 - 139
Benzene	ND	E8	25.0	24.4		ug/L		97	68 - 131
Bromobenzene	ND	E8	25.0	24.3		ug/L		97	70 - 130
Chlorobromomethane	ND	E8	25.0	25.0		ug/L		100	64 - 132
Dichlorobromomethane	0.25	E4	25.0	26.2		ug/L		104	63 - 138
Bromoform	ND	E8	25.0	23.1		ug/L		92	60 - 128
Bromomethane	ND	E8	25.0	25.2		ug/L		101	47 - 144
2-Butanone (MEK)	ND	E8	25.0	22.7		ug/L		91	31 - 143
n-Butylbenzene	ND	E8	25.0	25.9		ug/L		104	69 - 140
sec-Butylbenzene	ND	E8	25.0	25.7		ug/L		103	72 - 136
Carbon disulfide	ND	E8	25.0	25.7		ug/L		103	45 - 150
Carbon tetrachloride	ND	E8	25.0	25.8		ug/L		103	65 - 147
Chlorobenzene	ND	E8	25.0	23.7		ug/L		95	70 - 130
Chloroethane	ND	E8	25.0	25.8		ug/L		103	57 - 139
Chloroform	9.6		25.0	34.5		ug/L		100	63 - 131
Chloromethane	ND	E8	25.0	24.3		ug/L		97	47 - 134

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

Lab Sample ID: 550-41834-2 MS
Matrix: Water
Analysis Batch: 59502

Client Sample ID: IRA-40-031815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	ND	E8	25.0	24.4		ug/L		97	71 - 131
4-Chlorotoluene	ND	E8	25.0	25.3		ug/L		101	70 - 130
Chlorodibromomethane	ND	E8	25.0	24.9		ug/L		100	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	21.8		ug/L		87	53 - 145
Ethylene Dibromide	ND	E8	25.0	23.9		ug/L		96	70 - 130
Dibromomethane	ND	E8	25.0	25.8		ug/L		103	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	24.0		ug/L		96	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	24.1		ug/L		96	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	24.3		ug/L		97	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	26.6		ug/L		106	40 - 148
1,1-Dichloroethane	ND	E8	25.0	25.8		ug/L		103	62 - 130
1,2-Dichloroethane	ND	E8	25.0	26.7		ug/L		107	54 - 147
1,1-Dichloroethene	ND	E8	25.0	24.8		ug/L		99	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	24.5		ug/L		98	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	26.0		ug/L		104	62 - 131
1,2-Dichloropropane	ND	E8	25.0	25.2		ug/L		101	68 - 126
1,3-Dichloropropane	ND	E8	25.0	24.4		ug/L		98	68 - 129
2,2-Dichloropropane	ND	E8	25.0	34.2		ug/L		137	60 - 146
1,1-Dichloropropene	ND	E8	25.0	25.9		ug/L		104	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	25.8		ug/L		103	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	25.3		ug/L		101	58 - 136
Ethylbenzene	ND	E8	25.0	24.6		ug/L		98	74 - 134
Hexachlorobutadiene	ND	E8	25.0	23.2		ug/L		93	69 - 150
2-Hexanone	ND	E8	25.0	20.1		ug/L		80	40 - 142
Iodomethane	ND	E8	25.0	25.9		ug/L		104	53 - 150
Isopropylbenzene	ND	E8	25.0	25.4		ug/L		101	80 - 146
4-Isopropyltoluene	ND	E8	25.0	24.8		ug/L		99	70 - 133
Methylene Chloride	ND	E8	25.0	23.6		ug/L		94	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	25.5		ug/L		102	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	28.4		ug/L		114	67 - 138
Naphthalene	ND	E8	25.0	21.7		ug/L		87	67 - 146
N-Propylbenzene	ND	E8	25.0	26.1		ug/L		104	74 - 140
Styrene	ND	E8	25.0	24.0		ug/L		96	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	24.2		ug/L		97	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	26.1		ug/L		105	63 - 137
Tetrachloroethene	ND	E8	25.0	23.3		ug/L		93	67 - 131
Toluene	ND	E8	25.0	25.7		ug/L		103	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	21.6		ug/L		87	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	20.9		ug/L		84	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	26.4		ug/L		105	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	26.7		ug/L		107	63 - 132
Trichloroethene	4.2		25.0	29.4		ug/L		101	66 - 132
Trichlorofluoromethane	ND	E8	25.0	27.7		ug/L		111	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	24.0		ug/L		96	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	24.1		ug/L		96	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	25.7		ug/L		103	66 - 137
Vinyl acetate	ND	E8	25.0	28.8		ug/L		115	47 - 150
Vinyl chloride	ND	E8	25.0	25.3		ug/L		101	55 - 146

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

Lab Sample ID: 550-41834-2 MS
Matrix: Water
Analysis Batch: 59502

Client Sample ID: IRA-40-031815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	ND	E8	50.0	49.6		ug/L		99	68 - 131
Butadiene	ND	E8	25.0	26.7		ug/L		107	10 - 150
Hexane	ND	E8	25.0	26.9		ug/L		108	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	24.7		ug/L		99	58 - 138
o-Xylene	ND	E8	25.0	24.9		ug/L		100	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*94*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 550-41834-2 MSD
Matrix: Water
Analysis Batch: 59502

Client Sample ID: IRA-40-031815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8 L5	25.0	18.5		ug/L		74	29 - 139	2	35
Benzene	ND	E8	25.0	25.6		ug/L		102	68 - 131	5	32
Bromobenzene	ND	E8	25.0	24.6		ug/L		98	70 - 130	1	28
Chlorobromomethane	ND	E8	25.0	24.6		ug/L		98	64 - 132	2	35
Dichlorobromomethane	0.25	E4	25.0	25.9		ug/L		102	63 - 138	1	31
Bromoform	ND	E8	25.0	24.0		ug/L		96	60 - 128	4	31
Bromomethane	ND	E8	25.0	25.6		ug/L		102	47 - 144	1	35
2-Butanone (MEK)	ND	E8	25.0	19.1		ug/L		77	31 - 143	17	35
n-Butylbenzene	ND	E8	25.0	26.9		ug/L		108	69 - 140	4	32
sec-Butylbenzene	ND	E8	25.0	26.4		ug/L		106	72 - 136	3	33
Carbon disulfide	ND	E8	25.0	26.0		ug/L		104	45 - 150	1	35
Carbon tetrachloride	ND	E8	25.0	25.7		ug/L		103	65 - 147	0	35
Chlorobenzene	ND	E8	25.0	24.4		ug/L		98	70 - 130	3	30
Chloroethane	ND	E8	25.0	25.3		ug/L		101	57 - 139	2	35
Chloroform	9.6		25.0	35.3		ug/L		103	63 - 131	2	33
Chloromethane	ND	E8	25.0	24.6		ug/L		98	47 - 134	1	35
2-Chlorotoluene	ND	E8	25.0	25.6		ug/L		102	71 - 131	5	29
4-Chlorotoluene	ND	E8	25.0	26.0		ug/L		104	70 - 130	3	28
Chlorodibromomethane	ND	E8	25.0	23.7		ug/L		95	65 - 134	5	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	22.1		ug/L		88	53 - 145	1	35
Ethylene Dibromide	ND	E8	25.0	22.8		ug/L		91	70 - 130	5	33
Dibromomethane	ND	E8	25.0	27.5		ug/L		110	66 - 136	6	35
1,2-Dichlorobenzene	ND	E8	25.0	24.8		ug/L		99	70 - 130	3	27
1,3-Dichlorobenzene	ND	E8	25.0	25.6		ug/L		102	70 - 130	6	28
1,4-Dichlorobenzene	ND	E8	25.0	25.6		ug/L		102	70 - 130	5	26
Dichlorodifluoromethane	ND	E8	25.0	27.5		ug/L		110	40 - 148	3	35
1,1-Dichloroethane	ND	E8	25.0	25.6		ug/L		102	62 - 130	1	34
1,2-Dichloroethane	ND	E8	25.0	27.7		ug/L		111	54 - 147	4	35
1,1-Dichloroethene	ND	E8	25.0	26.4		ug/L		106	57 - 137	6	35
cis-1,2-Dichloroethene	ND	E8	25.0	25.9		ug/L		104	65 - 127	6	34
trans-1,2-Dichloroethene	ND	E8	25.0	26.1		ug/L		105	62 - 131	1	35
1,2-Dichloropropane	ND	E8	25.0	24.6		ug/L		99	68 - 126	2	32

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

Lab Sample ID: 550-41834-2 MSD
Matrix: Water
Analysis Batch: 59502

Client Sample ID: IRA-40-031815
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichloropropane	ND	E8	25.0	24.2		ug/L		97	68 - 129	1	33
2,2-Dichloropropane	ND	E8	25.0	31.6		ug/L		127	60 - 146	8	35
1,1-Dichloropropene	ND	E8	25.0	27.2		ug/L		109	64 - 134	5	34
cis-1,3-Dichloropropene	ND	E8	25.0	25.9		ug/L		104	63 - 135	0	35
trans-1,3-Dichloropropene	ND	E8	25.0	25.7		ug/L		103	58 - 136	2	35
Ethylbenzene	ND	E8	25.0	24.8		ug/L		99	74 - 134	1	32
Hexachlorobutadiene	ND	E8	25.0	22.7		ug/L		91	69 - 150	2	32
2-Hexanone	ND	E8	25.0	20.6		ug/L		83	40 - 142	3	35
Iodomethane	ND	E8	25.0	26.0		ug/L		104	53 - 150	1	35
Isopropylbenzene	ND	E8	25.0	26.2		ug/L		105	80 - 146	3	32
4-Isopropyltoluene	ND	E8	25.0	25.7		ug/L		103	70 - 133	3	32
Methylene Chloride	ND	E8	25.0	24.3		ug/L		97	55 - 133	3	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	27.3		ug/L		109	52 - 143	7	35
Methyl tert-butyl ether	ND	E8	25.0	26.2		ug/L		105	67 - 138	8	21
Naphthalene	ND	E8	25.0	22.8		ug/L		91	67 - 146	5	29
N-Propylbenzene	ND	E8	25.0	26.0		ug/L		104	74 - 140	0	32
Styrene	ND	E8	25.0	23.3		ug/L		93	43 - 144	3	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	23.3		ug/L		93	70 - 130	4	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	26.4		ug/L		106	63 - 137	1	32
Tetrachloroethene	ND	E8	25.0	23.4		ug/L		94	67 - 131	0	31
Toluene	ND	E8	25.0	25.7		ug/L		103	65 - 138	0	33
1,2,3-Trichlorobenzene	ND	E8	25.0	21.6		ug/L		86	74 - 139	0	26
1,2,4-Trichlorobenzene	ND	E8	25.0	22.1		ug/L		88	74 - 138	6	26
1,1,1-Trichloroethane	ND	E8	25.0	26.2		ug/L		105	64 - 138	1	35
1,1,2-Trichloroethane	ND	E8	25.0	26.7		ug/L		107	63 - 132	0	35
Trichloroethene	4.2		25.0	29.9		ug/L		103	66 - 132	1	29
Trichlorofluoromethane	ND	E8	25.0	26.4		ug/L		106	62 - 150	5	35
1,2,3-Trichloropropane	ND	E8	25.0	25.3		ug/L		101	68 - 130	6	32
1,2,4-Trimethylbenzene	ND	E8	25.0	25.7		ug/L		103	63 - 135	7	31
1,3,5-Trimethylbenzene	ND	E8	25.0	25.9		ug/L		104	66 - 137	1	30
Vinyl acetate	ND	E8	25.0	27.6		ug/L		110	47 - 150	4	35
Vinyl chloride	ND	E8	25.0	26.3		ug/L		105	55 - 146	4	35
Xylenes, Total	ND	E8	50.0	49.6		ug/L		99	68 - 131	0	31
Butadiene	ND	E8	25.0	26.3		ug/L		105	10 - 150	2	35
Hexane	ND	E8	25.0	29.0		ug/L		116	46 - 139	8	35
m-Xylene & p-Xylene	ND	E8	25.0	24.7		ug/L		99	58 - 138	0	29
o-Xylene	ND	E8	25.0	24.9		ug/L		100	66 - 137	0	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-59199/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59199

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/19/15 13:58	1

Lab Sample ID: LCS 550-59199/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59199

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.00	4.05		mg/L		101	90 - 110

Lab Sample ID: LCSD 550-59199/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59199

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.00	4.03		mg/L		101	90 - 110	1	20

Lab Sample ID: 550-41834-6 MS — **Client Sample ID: IRA-14(4)-031815-DUP**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59199

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.059	E4	4.00	4.07		mg/L		100	80 - 120

Lab Sample ID: 550-41834-6 MSD — **Client Sample ID: IRA-14(4)-031815-DUP**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59199

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.059	E4	4.00	4.15		mg/L		102	80 - 120	2	20

Lab Sample ID: MB 550-59594/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59594

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/25/15 16:47	1
Chloride	ND	E8	2.0	0.29	mg/L			03/25/15 16:47	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/25/15 16:47	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/25/15 16:47	1

Lab Sample ID: LCS 550-59594/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59594

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	4.05		mg/L		101	90 - 110
Chloride	20.0	20.0		mg/L		100	90 - 110
Nitrate as N	4.00	4.10		mg/L		103	90 - 110
Sulfate	20.0	21.0		mg/L		105	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-59594/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59594

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			4.00	4.06		mg/L		101	90 - 110	0	20
Chloride			20.0	20.1		mg/L		100	90 - 110	0	20
Nitrate as N			4.00	4.11		mg/L		103	90 - 110	0	20
Sulfate			20.0	20.9		mg/L		105	90 - 110	0	20

Lab Sample ID: 550-41181-E-16 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 59594

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide	1.0		4.00	5.02		mg/L		101	80 - 120		
Chloride	280	E2 M3	20.0	283	E2 M3	mg/L		-4	80 - 120		
Nitrate as N	0.68		4.00	4.76		mg/L		102	80 - 120		
Sulfate	770	E2 M3	20.0	753	E2 M3	mg/L		-63	80 - 120		

Lab Sample ID: 550-41181-E-16 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 59594

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	1.0		4.00	4.94		mg/L		98	80 - 120	2	20
Chloride	280	E2 M3	20.0	283	E2 M3	mg/L		-5	80 - 120	0	20
Nitrate as N	0.68		4.00	4.70		mg/L		101	80 - 120	1	20
Sulfate	770	E2 M3	20.0	754	E2 M3	mg/L		-61	80 - 120	0	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-59006/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59294 — **Prep Batch: 59006**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/19/15 16:25	03/23/15 16:39	1
Calcium	ND	E8	2.0	0.014	mg/L		03/19/15 16:25	03/23/15 16:39	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/19/15 16:25	03/23/15 16:39	1
Potassium	0.0790	E4	0.50	0.067	mg/L		03/19/15 16:25	03/23/15 16:39	1
Sodium	0.271	E4	0.50	0.15	mg/L		03/19/15 16:25	03/23/15 16:39	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/19/15 16:25	03/23/15 16:39	1

Lab Sample ID: LCS 550-59006/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59294 — **Prep Batch: 59006**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron			1.00	0.986		mg/L		99	85 - 115		
Calcium			21.0	21.4		mg/L		102	85 - 115		
Magnesium			21.0	21.2		mg/L		101	85 - 115		
Potassium			20.0	19.1		mg/L		95	85 - 115		
Sodium			20.0	19.9		mg/L		100	85 - 115		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 550-59006/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59294 — **Prep Batch: 59006**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	1.00	0.983		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-59006/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59294 — **Prep Batch: 59006**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.982		mg/L		98	85 - 115	0	20
Calcium	21.0	21.3		mg/L		101	85 - 115	1	20
Magnesium	21.0	21.0		mg/L		100	85 - 115	1	20
Potassium	20.0	18.9		mg/L		95	85 - 115	1	20
Sodium	20.0	19.6		mg/L		98	85 - 115	2	20
Chromium	1.00	0.978		mg/L		98	85 - 115	1	20

Lab Sample ID: 550-41881-C-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59294 — **Prep Batch: 59006**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	65	M3	1.00	62.1	M3	mg/L		-257	70 - 130
Calcium	420	M3	21.0	405	M3	mg/L		-56	70 - 130
Magnesium	650	M3	21.0	618	M3	mg/L		-156	70 - 130
Potassium	32		20.0	50.4		mg/L		94	70 - 130
Sodium	1500	M3	20.0	1410	M3	mg/L		-429	70 - 130
Chromium	0.00075	E4	1.00	0.939		mg/L		94	70 - 130

Lab Sample ID: 550-41881-C-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59294 — **Prep Batch: 59006**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	65	M3	1.00	64.1	M3	mg/L		-58	70 - 130	3	20
Calcium	420	M3	21.0	432	M3	mg/L		71	70 - 130	6	20
Magnesium	650	M3	21.0	654	M3	mg/L		14	70 - 130	6	20
Potassium	32		20.0	51.5		mg/L		99	70 - 130	2	20
Sodium	1500	M3	20.0	1460	M3	mg/L		-216	70 - 130	3	20
Chromium	0.00075	E4	1.00	0.946		mg/L		95	70 - 130	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-59346/63 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 06:18	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 06:18	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 06:18	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/24/15 06:18	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 550-59346/63 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/24/15 06:18	1

Lab Sample ID: LCS 550-59346/62 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			250	242		mg/L		97	90 - 110		

Lab Sample ID: LCSD 550-59346/76 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	241		mg/L		96	90 - 110	1	20

Lab Sample ID: 550-41782-A-3 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	580			569		mg/L				2	20
Bicarbonate Alkalinity as CaCO3	580			569		mg/L				2	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

Lab Sample ID: 550-41834-2 DU — **Client Sample ID: IRA-40-031815**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59346

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity as CaCO3	470			477		mg/L				0.9	20
Bicarbonate Alkalinity as CaCO3	470			477		mg/L				0.9	20
Carbonate Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20
Alkalinity, Phenolphthalein	ND	E8		ND	E8	mg/L				NC	20
Hydroxide Alkalinity as CaCO3	ND	E8		ND	E8	mg/L				NC	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

GC/MS VOA

Analysis Batch: 59276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41834-1	IRA-30-031815	Total/NA	Water	8260B	
550-41834-1 MS	IRA-30-031815	Total/NA	Water	8260B	
550-41834-1 MSD	IRA-30-031815	Total/NA	Water	8260B	
550-41834-2	IRA-40-031815	Total/NA	Water	8260B	
550-41834-3	IRA-14(2)-031815	Total/NA	Water	8260B	
550-41834-4	IRA-14(3)-031815	Total/NA	Water	8260B	
550-41834-5	IRA-14(4)-031815	Total/NA	Water	8260B	
550-41834-6	IRA-14(4)-031815-DUP	Total/NA	Water	8260B	
550-41834-7	TB	Total/NA	Water	8260B	
LCS 550-59276/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-59276/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-59276/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 59502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41834-2	IRA-40-031815	Total/NA	Water	8260B	
550-41834-2 MS	IRA-40-031815	Total/NA	Water	8260B	
550-41834-2 MSD	IRA-40-031815	Total/NA	Water	8260B	
LCS 550-59502/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-59502/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-59502/5	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 59199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41834-3	IRA-14(2)-031815	Total/NA	Water	300.0	
550-41834-5	IRA-14(4)-031815	Total/NA	Water	300.0	
550-41834-6	IRA-14(4)-031815-DUP	Total/NA	Water	300.0	
550-41834-6 MS	IRA-14(4)-031815-DUP	Total/NA	Water	300.0	
550-41834-6 MSD	IRA-14(4)-031815-DUP	Total/NA	Water	300.0	
LCS 550-59199/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-59199/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-59199/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 59594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41181-E-16 MS	Matrix Spike	Dissolved	Water	300.0	
550-41181-E-16 MSD	Matrix Spike Duplicate	Dissolved	Water	300.0	
550-41834-1	IRA-30-031815	Total/NA	Water	300.0	
550-41834-1	IRA-30-031815	Total/NA	Water	300.0	
550-41834-2	IRA-40-031815	Total/NA	Water	300.0	
550-41834-2	IRA-40-031815	Total/NA	Water	300.0	
550-41834-4	IRA-14(3)-031815	Total/NA	Water	300.0	
550-41834-4	IRA-14(3)-031815	Total/NA	Water	300.0	
LCS 550-59594/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-59594/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-59594/2	Method Blank	Total/NA	Water	300.0	

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Metals

Prep Batch: 59006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41834-1	IRA-30-031815	Total/NA	Water	200.7	
550-41834-2	IRA-40-031815	Total/NA	Water	200.7	
550-41834-3	IRA-14(2)-031815	Total/NA	Water	200.7	
550-41834-4	IRA-14(3)-031815	Total/NA	Water	200.7	
550-41834-5	IRA-14(4)-031815	Total/NA	Water	200.7	
550-41834-6	IRA-14(4)-031815-DUP	Total/NA	Water	200.7	
550-41881-C-1-A MS	Matrix Spike	Total/NA	Water	200.7	
550-41881-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7	
LCS 550-59006/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-59006/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-59006/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 59294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41834-1	IRA-30-031815	Total/NA	Water	200.7 Rev 4.4	59006
550-41834-2	IRA-40-031815	Total/NA	Water	200.7 Rev 4.4	59006
550-41834-3	IRA-14(2)-031815	Total/NA	Water	200.7 Rev 4.4	59006
550-41834-4	IRA-14(3)-031815	Total/NA	Water	200.7 Rev 4.4	59006
550-41834-5	IRA-14(4)-031815	Total/NA	Water	200.7 Rev 4.4	59006
550-41834-6	IRA-14(4)-031815-DUP	Total/NA	Water	200.7 Rev 4.4	59006
550-41881-C-1-A MS	Matrix Spike	Total/NA	Water	200.7 Rev 4.4	59006
550-41881-C-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	200.7 Rev 4.4	59006
LCS 550-59006/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	59006
LCSD 550-59006/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	59006
MB 550-59006/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	59006

General Chemistry

Analysis Batch: 59346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41782-A-3 DU	Duplicate	Total/NA	Water	SM 2320B	
550-41834-1	IRA-30-031815	Total/NA	Water	SM 2320B	
550-41834-2	IRA-40-031815	Total/NA	Water	SM 2320B	
550-41834-2 DU	IRA-40-031815	Total/NA	Water	SM 2320B	
550-41834-4	IRA-14(3)-031815	Total/NA	Water	SM 2320B	
LCS 550-59346/62	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-59346/76	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-59346/63	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Client Sample ID: IRA-30-031815

Lab Sample ID: 550-41834-1

Date Collected: 03/18/15 13:20
Matrix: Water
Date Received: 03/18/15 14:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59276	03/24/15 11:39	UT	TAL PHX
Total/NA	Analysis	300.0		1	59594	03/26/15 05:58	MHH	TAL PHX
Total/NA	Analysis	300.0		20	59594	03/26/15 06:16	MHH	TAL PHX
Total/NA	Prep	200.7			59006	03/19/15 16:25	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59294	03/23/15 18:08	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	59346	03/24/15 08:35	CDC	TAL PHX

Client Sample ID: IRA-40-031815

Lab Sample ID: 550-41834-2

Date Collected: 03/18/15 12:45
Matrix: Water
Date Received: 03/18/15 14:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59502	03/25/15 20:25	UT	TAL PHX
Total/NA	Analysis	8260B		1	59276	03/24/15 13:23	UT	TAL PHX
Total/NA	Analysis	300.0		1	59594	03/26/15 06:35	MHH	TAL PHX
Total/NA	Analysis	300.0		20	59594	03/26/15 06:53	MHH	TAL PHX
Total/NA	Prep	200.7			59006	03/19/15 16:25	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59294	03/23/15 18:11	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	59346	03/24/15 09:10	CDC	TAL PHX

Client Sample ID: IRA-14(2)-031815

Lab Sample ID: 550-41834-3

Date Collected: 03/18/15 13:50
Matrix: Water
Date Received: 03/18/15 14:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59276	03/24/15 13:55	UT	TAL PHX
Total/NA	Analysis	300.0		1	59199	03/19/15 19:07	KLH	TAL PHX
Total/NA	Prep	200.7			59006	03/19/15 16:25	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59294	03/23/15 18:14	AJC	TAL PHX

Client Sample ID: IRA-14(3)-031815

Lab Sample ID: 550-41834-4

Date Collected: 03/18/15 10:20
Matrix: Water
Date Received: 03/18/15 14:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59276	03/24/15 14:28	UT	TAL PHX
Total/NA	Analysis	300.0		1	59594	03/26/15 07:12	MHH	TAL PHX
Total/NA	Analysis	300.0		20	59594	03/26/15 07:30	MHH	TAL PHX
Total/NA	Prep	200.7			59006	03/19/15 16:25	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59294	03/23/15 18:17	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	59346	03/24/15 09:34	CDC	TAL PHX

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Client Sample ID: IRA-14(4)-031815

Lab Sample ID: 550-41834-5

Date Collected: 03/18/15 10:40
Matrix: Water
Date Received: 03/18/15 14:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59276	03/24/15 15:01	UT	TAL PHX
Total/NA	Analysis	300.0		1	59199	03/19/15 19:35	KLH	TAL PHX
Total/NA	Prep	200.7			59006	03/19/15 16:25	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59294	03/23/15 18:20	AJC	TAL PHX

Client Sample ID: IRA-14(4)-031815-DUP

Lab Sample ID: 550-41834-6

Date Collected: 03/18/15 10:40
Matrix: Water
Date Received: 03/18/15 14:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59276	03/24/15 15:33	UT	TAL PHX
Total/NA	Analysis	300.0		1	59199	03/19/15 20:03	KLH	TAL PHX
Total/NA	Prep	200.7			59006	03/19/15 16:25	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	59294	03/23/15 18:23	AJC	TAL PHX

Client Sample ID: TB

Lab Sample ID: 550-41834-7

Date Collected: 03/18/15 13:51
Matrix: Water
Date Received: 03/18/15 14:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	59276	03/24/15 16:05	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41834-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY FORM 550-41834

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 2520 E. Sunset, Suite 3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0013-550 (12/08)

Page _____ of _____

3/30/2015

Client Name/Address: AMEC, 4600 e washington, Phoenix AZ 85034

Project/PO Number: Miracle mile WQARF 14201420 30.5.3

Project Manager: AdliangGu

Phone Number: 602-733-6000

Sampler: Sargent/Combs

Fax Number:

Analysis Required

550-41834 Chain of Custody

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260 LL	200.7 total Chromium	300.0 Nitrate	2320B+300.0 alkalinity Fanions (Cl, SO4, NO3, Bromide, Alkalinity)	200.7 metals (K, Na, Ca, Mg, boron, total Chromium)					Special Instructions
IRA-30-031815	AQ	40ml 250ml 500ml	5	3/18/15	1320	HCl HNO3	X			X	X					ADEQ # 67117
IRA-40-031815		40ml 250ml 500ml	5		1245		X			X	X					
IRA-14(2)-031815		40ml 250ml	5		1350		X	X	X							ADEQ # 61604
IRA-14(3)-031815		40ml 250ml 500ml	5		1020		X			X	X					ADEQ # 61605
IRA-14(4)-031815		40ml 250ml	5		1040		X	X	X							ADEQ # 61606
IRA-14(4)-031815-DUP		40ml 250ml	5		1040		X	X	X							ADEQ # 61606
TB		40ml	1		1351	HCl	X									

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)	
	3/18/15 1447		3-18-15 1447	Same day _____	72 hours _____
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours _____	5 days _____
	3-18-15 1530			48 hours _____	normal X
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:	Sample Integrity: (Check)	
			3-19-15 0930	intact _____	on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

3.2°C

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Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41834-1

Login Number: 41834

List Source: TestAmerica Phoenix

List Number: 1

Creator: Gaska, Kristinena

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

APPENDIX E

DATA VERIFICATION SHEETS

LABORATORY REPORT GOAL: March 5, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4, TBA-d9 in the method blank(MB) was outside acceptance criteria, low. Therefore, the MB will be flagged with an E6*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **N/A**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **No** **Field duplicates not identified.**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**

X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes. Laboratory control samples and laboratory control sample duplicates were used, no matrix spike nor matrix spike duplicate samples were evaluated.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41105-1
Sample IDs: IRA-36-030515
IRA-37-030515
IRA-24-030515
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 6, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: Surrogate recovery for 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8 in the continuing calibration verification(CCVIS) recovered outside laboratory limits, low. All other recoveries for 4-Bromofluorobenzene, Dibromofluoromethane, and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS was flagged with an N1 and reported, see batchs 58455 & 58659.* *Method 8260B: The method blank for batch 58455 contained 1,2,3-Trichlorobenzene above the reporting limit(RL).* *Method 8260B:Internal standard (ISTD) response for TBA-d9 for sample 550-41183-B-1 was outside acceptance criteria, low. This ISTD does not correspond to any of the requested target compounds; therefore, the data has been reported with E6 flag.* *Methods 624 & 8260B: Surrogate recovery for 4-Bromofluorobenzene and Dibromofluoromethane in the continuing calibration verification(CCVIS) and matrix spikes(MS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Dibromofluoromethane in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS and MS were flagged with an N1 and reported, see batch 58728.*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**

	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **N/A**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
N/A	g. Field duplicates, if identified, reproducibility will be evaluated. **No** **Field duplicates not identified.**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**
X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes. Laboratory control samples and laboratory control sample duplicates were used, no matrix spike nor matrix spike duplicate samples were evaluated.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41183-1
Sample IDs: IRA-2-030615
IRA-41-030615
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 9, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 300.0: Initial analysis of Nitrate for the following samples was within the specified holding time, however the result exceeded the high end of the calibration curve and therefore cannot be reported: IRA-16-030915 (550-41239-4). Reanalysis at the required dilution was preformed past the method specified holding time. The corresponding Nitrate sample is qualified with a H2 flag.*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **N/A**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **N/A**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **No** **Field duplicates not identified.**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**

X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes. Laboratory control samples and laboratory control sample duplicates were used, no matrix spike nor matrix spike duplicate samples were evaluated.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41239-1
Sample IDs: IRA-17-030915
IRA-22-030915
IRA-21-030915
IRA-16-030915
Test Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 10, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: Surrogate recovery for 4-Bromofluoromethane in the CCVIS recovered low. All other recoveries for 4-Bromofluoromethane in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS were flagged with an N1 and reported, see batch 58543.* *Method 8260B: The laboratory control sample duplicate (LCSD) for batch 58543 recovered outside control limits, low for the following analyte: 1,2,3-Trichlorobenzene. The laboratory control sample (LCS) as well as the matrix spike(MS) and matrix spike duplicate (MSD) for batch 58543 recovered within control limits and were not detected in the associated samples; therefore, the data has been reported with an N1 qualifier. See analytical batch 58543.* *Method 8260B: Surrogate recovery for 4-Bromofluorobenzene and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS was flagged with an N1 and reported, see batch 58715.* *Method 8260b: The method blank for batch 58715 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, and Naphthalene above the reporting limit (RL).*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**

	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **Yes**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **No** **Field duplicates not identified.**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**
X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41327-1
Sample IDs: IRA-39-031015
IRA-33-031015
IRA-32-031015
IRA-4-031015
IRA-38-031015
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 11, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? If yes, what corrective action, if any, was taken? *Method 8260B: Surrogate recovery for 4-Bromofluorobenzene and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS was flagged with an N1 and reported, see batch 58715.* *Method 8260B: The method blank for batch 58715 contained 1,2,4-Tricholorobenzene, 1,2,3-Tricholorobenzene, n-Butylbenzene, and Naphthalene above the reporting limit(RL). All of these compounds were non-detect in the samples and were reported.*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **Yes**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **Yes**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**

	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**
X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41397-1
Sample IDs: IRA-25-031115
IRA-8-031115
IRA-6-031115
IRA-12-210-031115
IRA-12-210-031115 DUP
IRA-13-210-031115
IRA-13-210-031115 DUP
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 12, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: The method blank for batch 58765 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, Toluene, and Napthalene above the reporting limit(RL).*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **Yes**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **No** **Field duplicates not identified.**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**
X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes.**

X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41598-1
Sample IDs: IRA-1-031215
IRA-7-031215
IRA-10-230-031215
IRA-5-031215
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 13, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: Surrogate recovery for 4-Bromofluorobenzene and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS was flagged with an N1 and reported, see batch 58715.* *Method 8260B: The method blank for batch 58715 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, and Naphthalene above the reporting limit (RL). All samples with no hits were reported with a B1 qualifier. Samples with hits were re-analyzed, see batch 58715.*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **N/A**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **No** **Field duplicates not identified.**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**

X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**
X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes. Laboratory control samples and laboratory control sample duplicates were used, no matrix spike nor matrix spike duplicate samples were evaluated.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41605-1
Sample IDs: IRA-26-031315
IRA-11-210-031315
Baker-031315
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 16, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: The laboratory control spiked duplicate(LCSD) for batch 59196 recovered outside control limits for Hexachlorobutadiene. Hexachlorobutadiene was biased low in the LCSD, but acceptable in all other QC: continuing calibration verification(CCVIS), laboratory control spike duplicate(LCSD), matrix spike (MS) and matrix spike duplicate (MSD). All samples were non-detect: therefore the data has been reported. The LCSD and samples were flagged with an N1 qualifier.*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
X	**4. QC Summary** Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **Yes**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **No** **Field duplicates not identified.**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**

X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41657-1
Sample IDs: VillaCapri-031615
IRA-9-031615
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 17, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: Internal standard response for the following source sample 550-41581-F-1 exceeded the lower control limit. As such, the sample results may be biased high. The sample was re-analyzed. The source was flagged with an N1 qualifier and reported, see batch 59162.* *Method 300.0: The sample SJ-MW-2-031715(550-417342-1) was analyzed outside of analytical holding time for Nitrate due to login error. The sample was qualified with an H1 flag for Nitrate.*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **Yes**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **Yes**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**

	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**
X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41743-1
Sample IDs: SJ-MW-2-031715
IRA-17-031715
IRA-21-031715
IRA-12-70-031715
IRA-12-70-031715 DUP
IRA-16-031715
IRA-22-031715
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 28, 2015

LABORATORY REPORT GOAL: MARCH 18, 2015 GROUNDWATER SAMPLES
DATA VERIFICATION

Data verification precedes data validation and is a systematic process for evaluating whether data have been generated with acceptable quality control (QC), as defined in the Project Quality Assurance Project Plan (QAPP).

The items listed below were evaluated, along with completeness of supporting documentation. This is a cursory review of the laboratory's QC and may suggest that a more thorough validation is needed.

Completed	Review Item
X	**1. Case Narrative** Have any anomalies, deficiencies, and QC problems been identified in the case narrative? **Yes** If yes, what corrective action, if any, was taken? *Method 8260B: Internal standard (ISTD) response for TBA-d9 for the following sample was outside the acceptance criteria: 550-41834-A-1. This ISTD does not correspond to any of the requested targets compounds; therefore, the data have been reported with E6 flag.* *Method 300.0: The following samples were analyzed outside of analytical holding time for Nitrate. The laboratory added on Nitrate analysis after the samples were past 48 hour holding time. Sample data is qualified with an H1 flag.*
X	**2. Chain-of-Custody Documentation** Are the original chain-of-custody forms with identification numbers and laboratory receipt signatures present? **Yes**
X	**3. Sample Analytical Results** Are sample analysis results included for environmental samples, with Quantitation limits (include dilutions and re-analysis)? **Yes**
	4. QC Summary Is the following information included:
X	a. Method blanks, continuing calibration blanks, and preparation blanks. **Yes**
X	b. Surrogate percent recoveries. **Yes**
X	c. Internal standard percent recoveries. **Yes**
X	d. Matrix spike percent recoveries. **Yes**
X	e. Laboratory duplicate sample relative percent recoveries. **Yes**
X	f. Laboratory QC check sample, laboratory control sample recoveries. **Yes**
X	g. Field duplicates, if identified, reproducibility will be evaluated. **Yes**
X	h. Acceptance criteria, if not already established by the method/data quality objective (DQ). **Yes**
X	i. Definitions for any laboratory data qualifiers used. **Yes**
	5. Specifically review the following:
X	a. Was check for timeliness and errors conducted, including requested deliverables, preservation, holding times, and chain-of-custody? **Yes**

X	b. Was a duplicate sample/matrix spike/matrix spike duplicate/post digest spike reviewed against precision and accuracy criteria specified by the method or by project data quality objectives (DQOs)? **Yes.**
X	c. Were compound quantitation and reported detection limits reviewed, checking reporting limits against contract required limits? **Yes.**
	6. Does the Verification Report include the following information:
NA	a. Case narrative including, but not limited to, an overall summary of data acceptability and comparison to DQOs and data quality initiatives, a list of recommended changes, a summary of all laboratory contracts, in which communications with the laboratory, if any, would be identified, and any other problems associated with the actual analysis which might impact the sample integrity or data quality? **Not applicable.**
X	b. Tabulated summary of all data results supplied electronically by e-mail or on CD in a commonly used software format? **Yes**

Data Verification for:
Miracle Mile WQARF

TestAmerica Job ID: 550-41834-1
Sample IDs: IRA-30-031815
IRA-40-031815
IRA-14(2)-031815
IRA-14(3)-031815
IRA-14(4)-031815
IRA-14(4)-031815-DUP
Trip Blank

Completed by:
Garrett Tabor
Geologist/Environmental Scientist
Amec Foster Wheeler Environment & Infrastructure
May 29, 2015

APPENDIX F

INVESTIGATION DERIVED WASTE FORMS

LIQUID ENVIRONMENTAL SOLUTIONS

liquid ENVIRONMENTAL SOLUTIONS

NON-HAZARDOUS WASTE MANIFEST

67579

Profile Number
211784

Generator Name	Name: Arizona Department of Environmental Quality Phone: (520)628-6708	**Generator Address**	Address: 1444 W. Ruth Street City: Tucson State: AZ Zip: 85705

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type: ☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☐ Non-Industrial ☒ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	X GRETCHEN WAGENSELLER ARIZONA DEPT. OF ENV. QUALITY SOUTHERN REGIONAL OFFICE SUPERFUND PROGRAMS UNIT	**Generator Rep. Signature**	X Gretchen Wagenseller
Transporter Name	Name: Chemical Transportation, Inc. Phone: (480)784-4833	**Transporter Address**	Address: 1945 E. Jackson Street City: Phoenix State: AZ Zip: 85034

Waste Removed (Gallons)	Monitoring Well Purge Water & Decon Water (GALLONS)	**Date**	**Time**

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)		**Driver Signature**	

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)		**Date**	**Time**
Facility Rep. Name (please print)		**Facility Rep. Signature**	

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

liquid
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866-694-7327
www.liquidenviro.com

Internal Use Only:
Profile #:
Account #:
Approved (●) Non-Approved ( )
Subcategory A [●] B [ ] C [ ]

PROFILE INFORMATION

US EPA ID#: State ID#: NAICS # TCEQ ID#(TX-Only): Analytical Attached MSDS Attached

GENERATOR INFORMATION

Name: Arizona Department of Environmental Quality
Address: 1444 W. Ruth Street
City: Tucson State: AZ Zip: 85705
Contact: Gretchen Wagenseller Title:
Phone: 520-628-6708 Fax:
Email:

BILLING INFORMATION

Name: Chemical Transportation, Inc.
Address: 1945 E. Jackson Street
City: Tucson State: AZ Zip: 85034
Contact: AP Title:
Phone: 480-784-4833 Fax:
Email: CT.AP@ctl-az.com

WASTE QUESTIONNAIRE (CHECK ALL THAT APPLY)

Non-hazardous Waste

	Yes	No	Unknown
1. Is this material a hazardous waste (F, K, U, or P listed) as defined by 40 CFR 261 Subpart D? If yes to the above, identify the listing.	( )	(●)	( )
2. Has this material been mixed with a hazardous waste as defined by 40 CFR 261?	( )	(●)	( )
3. Does this material exhibit any of the following hazardous waste characteristics? — Ignitability? (40 CFR Part 261.21)	( )	(●)	( )
Corrosivity? (40 CFR Part 261.21)	( )	(●)	( )
Reactivity? (40 CFR Part 261.21)	( )	(●)	( )
Toxicity? (40 CFR Part 261.21)	( )	(●)	( )
4. Does this material contain? — Herbicides, pesticides, insecticides?	( )	(●)	( )
Dioxins?	( )	(●)	( )
Radioactive substances?	( )	(●)	( )
Domestic Wastes?	( )	(●)	( )
Biohazardous materials?	( )	(●)	( )
5 Is the waste derived from an underground storage tank (UST)?	( )	(●)	( )
6. If waste is derived from fuel, is the fuel leaded?	( )	(●)	( )

Used Oil (as defined by CFR 279.1)

1. Is this material Used Oil as defined by 40 CFR 279?	( )	(●)	( )
2. Has this Used Oil been mixed with hazardous waste?	( )	( )	( )
3. Is the source of the waste a Conditionally Exempt Small Quantity Generator?	( )	( )	( )
4. Does this Used Oil contain chlorinated paraffins? If yes, attach MSDS	( )	( )	( )
5. Does this Used Oil contain TSCA (40 CFR 761) regulated levels of PCB? If yes, list PCB level:	( )	( )	( )
6. Does this Used Oil contain less (<) than or equal to 1,000 mg/L Total Organic Halogens (TOX)? * If no, rebuttal per 40 CFR 279.10(b)(1)(ii) must be included.	( )	( )	( )
7. Is this Used Oil soluble in water?	( )	( )	( )

Is this a virgin or off-spec product? (If Yes, must include MSDS) NO

	Yes	No	Unknown
1. Unused Product or Chemical	( )	(●)	( )
2. Waste by-product from process	(●)	( )	( )
3. Spill Clean Up	( )	(●)	( )
4. Planned Site Remediation	(●)	( )	( )
5. Representative Sample Provided.	(●)	( )	( )
Petroleum Contact Water (PCW)/Leaking	( )	(●)	( )
Underground Storage Tank (LUST) Water	( )	(●)	( )
Is the generator a Conditionally Exempt Small Quantity Generator (CESQG)?	(●)	( )	( )
Does this waste contain oils, lubricants, coolants or petroleum products	[ ]	[●]	[ ]

PURGE + DECON WATER FROM MONITOR WELL SAMPLING AT MIRACLE MILE WQARF SITE

WASTE STREAM COMPOSITION (TOTAL MUST EQUAL 100%)

MajorComponentsConcentrationRange

(Water, Oil, Solid, etc.)	Average	Minumum	Maximum
water	98	97	99
sediment	2	0	3

WASTE DESCRIPTION

Common Name of Waste: Monitoring Well Purge Water and Decon Water

Detail Process Generating Waste: (Add additional sheet if necessary) Water generated during monitoring well install and maintenance. Constituents of concern are chlorinated solvents and chromium from an unknown source

Physical State
( ) 100% Solid Without Free Liquid
( ) 100% Liquid With No Solids
(●) Liquid/Solid Mixture
99 % Free Liquid
1 % Settled Solids
1 % Total Suspended Solids

Layers
(●) Single Phase
( ) Bi-Layered
( ) Multi Layered

ph
( ) <2 ( ) 8-12.5
( ) 2-6 ( ) >12.5
(●) 6-8 ( ) N/A

Flash Point
( ) <73 F ( ) 141-200 F
( ) 73-100 F (●) >200 F
( ) 101-140 F ( ) N/A

Specific Gravity
Range: 8.34 To:

Color
Describe brown

Odor
(●) None ( ) Mild ( ) Strong
Describe:

Viscosity
(●) Low
( ) High
( ) Medium

TX-Only Classification
( ) Class I
( ) Class II
( ) Other:

TX-ONLY: PLEASE INDICATE WHETHER ANY OF THE FOLLOWING ARE PRESENT:

( ) TCLP Metals — Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver
( ) TCLP Semivolitiles — (o-Cresol, m-Cresol, p-Cresol, Cresol (total) 2-4 Dinitrotoluene, Hexachlorobenzene, Hexacchlorobutadiene, Hexachlorethane, Nitrobenzene, Pentachchlorophenol, Pyridine, 2-4-5 Trichlorophenol, and 2-4-6 Trichlorophenol)
( ) TCEQ Appendix 1 — (TAC 31, Section 335-Subchapter R) or Total Petroleum Table 1, Constituents Hydrocarbons)
( ) TCLP Herbicides/ Pesticides — (Chlordane, 2-4 Endrin, Heptachlor, Heptachlor epoxide, Lindane, Methoxyclor, Toxaphene, and 2-4-5 TP/Silvex)
( ) TCLP Volatiles — (Benzene, Carbon Tetrachloride, Chlorobenzene, Chloroform, Methyl Ethyl Ketone, 1-4 Dichlorobenzene, 1-2 Dichloroethane, 1-1 Dichloroethylene, Trichloroethylene, Tetrachloroethylene, and Vinyl Chloride)
( ) RCI — (Reactive Cyanide, Reactive Sulfide, Corrosivity, Ignitability

TRANSPORTATION INFORMATION

Method of Shipment: (●) Bulk Liquid ( ) Bulk Sludge ( ) Bulk Solid ( ) Drum/Box ( ) Other:
Shipment Frequency: ( ) One Time ( ) Weekly ( ) Monthly ( ) Quarterly ( ) Annually (●) Other:
Anticipated Volume: 10,000 gallons

GENERATOR CERTIFICATION AND GUARANTEE - PLEASE READ AND SIGN BELOW

As the generator of the material (waste) described above, I certify that I have provided all relevant information as required by this profile and that the information provided is, to the best of my knowledge and belief, true, accurate and complete. Generator agrees not to deliver or arrange for delivery of any material that does not conform to the waste characterization contained in this profile. I further certify that this material is not a RCRA hazardous waste pursuant to federal, state or local laws and has not been mixed with any chlorinated solvents or any other contaminants including, without limitation, PCBs, pesticides, or other hazardous wastes. If Liquid Environmental Solutions (LES) accepts the material for processing and the material is later determined by LES or any other person to be or contain hazardous waste within the meaning of any federal, state or local law, or contain PCBs in sufficient quantity to render it a TSCA-regulated material, the generator agrees to pay all costs incurred by LES to properly treat, store, dispose or otherwise handle the material and any fines and penalties resulting from LES's handling of generator's material. Generator agrees to promptly notify LES of any change in the composition of the material or process generating the material, and agrees to provide LES with a new Uniform Waste Profile prior to delivering any material to LES that does not conform to the waste characterization contained in this profile. The undersigned is an authorized representative of the generator.

Gretchen Wagenseller — 5-21-2015 — GRETCHEN WAGENSELLER, PROJECT MANAGER, ADEQ, SRO, SPU - TUCSON

Generator Authorization Signature — Date — Print Name and Title

LES Rev: 2-17-15

LIQUID ENVIRONMENTAL SOLUTIONS

67579

NON-HAZARDOUS WASTE MANIFEST

Profile Number
211784

Generator Name	Name: Arizona Department of Environmental Quality Phone: (520) 628-6708	**Generator Address**	Address: 1444 W. Ruth Street City: Tucson State: AZ Zip: 85705

Check with your state and local regulatory agencies for manifest retention requirements. NOTE: Many regulatory agencies require records to be kept on-site and available to review for up to 3 years.

Waste Type: ☐ Grease Trap ☐ Grit Trap ☐ Septic/Chemical Toilet ☐ Non-Industrial ☒ Industrial ☐ Special ☐ Used Cooking Oil ☐ Recyclable Used Oil

I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pusuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.

Generator Rep. Name (please print)	X GRETCHEN WAGENSELLER	**Generator Rep. Signature**	X Gretchen Wagenseller

Transporter Name	Name: Chemical Transportation, Inc. Phone: (480) 784-4833	**Transporter Address**	Address: 1945 E. Jackson Street City: Phoenix State: AZ Zip: 85034

Waste Removed (Gallons)	Monitoring Well Purge Water & Decon Water (1400 GALLONS)	**Date**	**Time**
		6-4-15	13:00

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver Name (please print)	JOSE JIMENEZ	**Driver Signature**	Jose Jimenez

Disposal Facility	Liquid Environmental Solutions of Arizona	**Address**	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)		**Date**	**Time**
Facility Rep. Name (please print)		**Facility Rep. Signature**	

WHITE - Generator Final Copy YELLOW - Liquid Environmental Solutions Copy GOLDENROD - Transporter Copy PINK - Generator 1st Copy

Liquid Environmental Solutions of Arizona
5159 West Van Buren Street Phoenix, AZ 85043 (866) 694-7327 www.liquidenviro.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Phoenix
4625 East Cotton Ctr Blvd
Suite 189
Phoenix, AZ 85040
Tel: (602)437-3340

TestAmerica Job ID: 550-41605-1
TestAmerica Sample Delivery Group: 1420142030.5.3
Client Project/Site: Miracle Mile WQARF-Tucson, AZ

For:
AMEC Foster Wheeler E & I, Inc
4600 E. Washington St
6th Floor
Phoenix, Arizona 85034

Attn: Ailiang Gu

Authorized for release by:
3/24/2015 10:30:42 AM

Vic Nielsen, Project Manager II
(602)437-3340
vic.nielsen@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
R6	LFB/LFBD RPD exceeded method control limit. Recovery met acceptance criteria.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
B1	Target analyte detected in method blank at or above the method reporting limit.

GC/MS VOA TICs

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
T4	Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

HPLC/IC

Qualifier	Qualifier Description
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike was acceptable.
D2	Sample required dilution due to high concentration of analyte.
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Metals

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

General Chemistry

Qualifier	Qualifier Description
E8	Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

Glossary

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

Job ID: 550-41605-1

Laboratory: TestAmerica Phoenix

Narrative

Job Narrative
550-41605-1

Comments
No additional comments.

Receipt
The samples were received on 3/14/2015 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.9º C and 2.1º C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for 4-Bromofluorobenzene and Toluene-d8 in the continuing calibration verification (CCVIS) recovered outside laboratory acceptance limits, low. All other recoveries for 4-Bromofluorobenzene and Toluene-d8 in the batch QC and samples were within acceptance limits. The data was not impacted and the CCVIS will be flagged with an N1 and reported, see batch 58715.

Method(s) 8260B: The method blank for batch 58715 contained 1,2,4-Trichlorobenzene, 1,2,3-Trichlorobenzene, n-Butylbenzene, and Naphthalene above the reporting limit (RL). All samples with no hits will be reported with a B1 qualifier. Samples with hits were re-analyzed, see batch 58715.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Sample Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
550-41605-1	IRA-26-031315	Water	03/13/15 10:40	03/13/15 14:30
550-41605-2	IRA-11-210-031315	Water	03/13/15 12:48	03/13/15 14:30
550-41605-3	Baker-031315	Water	03/13/15 14:10	03/13/15 14:30
550-41605-4	TB	Water	03/13/15 14:11	03/13/15 14:30

Detection Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: IRA-26-031315 — Lab Sample ID: 550-41605-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Naphthalene	0.84	E4	2.5	0.51	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.43	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	0.29	E4	0.50	0.24	ug/L	1		8260B	Total/NA
Nitrate as N	6.2		0.10	0.051	mg/L	1		300.0	Total/NA
Chromium	0.090		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: IRA-11-210-031315 — Lab Sample ID: 550-41605-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.2		0.50	0.13	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.5		0.50	0.23	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.6		0.50	0.21	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.29	E4	0.50	0.22	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.46	E4	0.50	0.18	ug/L	1		8260B	Total/NA
Trichloroethene	53		0.50	0.24	ug/L	1		8260B	Total/NA
Bromide	0.68		0.50	0.051	mg/L	1		300.0	Total/NA
Chloride	150		2.0	0.29	mg/L	1		300.0	Total/NA
Nitrate as N	8.5		0.10	0.051	mg/L	1		300.0	Total/NA
Sulfate	290	D2	20	2.1	mg/L	10		300.0	Total/NA
Boron	0.18		0.050	0.0049	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	130		2.0	0.014	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.055		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	7.9		2.0	0.017	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	3.3		0.50	0.067	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	140		0.50	0.15	mg/L	1		200.7 Rev 4.4	Total/NA
Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160		6.0	6.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Baker-031315 — Lab Sample ID: 550-41605-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.2		0.50	0.24	ug/L	1		8260B	Total/NA
Chromium	0.071		0.010	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TB — Lab Sample ID: 550-41605-4

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.88	E4	1.0	0.67	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: IRA-26-031315

Lab Sample ID: 550-41605-1

Date Collected: 03/13/15 10:40
Date Received: 03/13/15 14:30

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 21:48	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 21:48	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 21:48	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 21:48	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 21:48	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 21:48	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 21:48	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 21:48	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 21:48	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 21:48	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 21:48	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 21:48	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 21:48	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 21:48	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 21:48	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 21:48	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 21:48	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 21:48	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 21:48	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 21:48	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 21:48	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 21:48	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 21:48	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 21:48	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 21:48	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 21:48	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 21:48	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 21:48	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 21:48	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 21:48	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 21:48	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 21:48	1
Naphthalene	**0.84**	**E4**	2.5	0.51	ug/L			03/17/15 21:48	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1

Client Sample ID: IRA-26-031315

Lab Sample ID: 550-41605-1

Date Collected: 03/13/15 10:40
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 21:48	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 21:48	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 21:48	1
Tetrachloroethene	**0.43**	**E4**	0.50	0.18	ug/L			03/17/15 21:48	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 21:48	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 21:48	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 21:48	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 21:48	1
Trichloroethene	**0.29**	**E4**	0.50	0.24	ug/L			03/17/15 21:48	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 21:48	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 21:48	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 21:48	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 21:48	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 21:48	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 21:48	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 21:48	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 21:48	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 21:48	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 21:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 21:48*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 21:48*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 21:48*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 21:48*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 21:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*03/17/15 21:48*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/17/15 21:48*	*1*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*		*03/17/15 21:48*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**6.2**		0.10	0.051	mg/L			03/14/15 12:28	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.090**		0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 12:09	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 22:20	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 22:20	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 22:20	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 22:20	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 22:20	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 22:20	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 22:20	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 22:20	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 22:20	1
Chloroform	**1.2**		0.50	0.13	ug/L			03/17/15 22:20	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 22:20	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 22:20	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 22:20	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 22:20	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 22:20	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 22:20	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 22:20	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 22:20	1
1,1-Dichloroethene	**1.5**		0.50	0.23	ug/L			03/17/15 22:20	1
cis-1,2-Dichloroethene	**1.6**		0.50	0.21	ug/L			03/17/15 22:20	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 22:20	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 22:20	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 22:20	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 22:20	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 22:20	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 22:20	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 22:20	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 22:20	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 22:20	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 22:20	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 22:20	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/17/15 22:20	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 22:20	1
Methyl tert-butyl ether	**0.29**	**E4**	0.50	0.22	ug/L			03/17/15 22:20	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 22:20	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 22:20	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 22:20	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 22:20	1
Tetrachloroethene	**0.46**	**E4**	0.50	0.18	ug/L			03/17/15 22:20	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 22:20	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 22:20	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 22:20	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 22:20	1
Trichloroethene	**53**		0.50	0.24	ug/L			03/17/15 22:20	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 22:20	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 22:20	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 22:20	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 22:20	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 22:20	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 22:20	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 22:20	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 22:20	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 22:20	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 22:20	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 22:20*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 22:20*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 22:20*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 22:20*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 22:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*03/17/15 22:20*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*03/17/15 22:20*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/17/15 22:20*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	**0.68**		0.50	0.051	mg/L			03/14/15 13:52	1
Chloride	**150**		2.0	0.29	mg/L			03/14/15 13:52	1
Nitrate as N	**8.5**		0.10	0.051	mg/L			03/14/15 13:52	1
Sulfate	**290**	**D2**	20	2.1	mg/L			03/19/15 18:51	10

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.18**		0.050	0.0049	mg/L		03/16/15 12:51	03/17/15 12:12	1
Calcium	**130**		2.0	0.014	mg/L		03/16/15 12:51	03/17/15 12:12	1
Chromium	**0.055**		0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 12:12	1
Magnesium	**7.9**		2.0	0.017	mg/L		03/16/15 12:51	03/17/15 12:12	1
Potassium	**3.3**		0.50	0.067	mg/L		03/16/15 12:51	03/17/15 12:12	1
Sodium	**140**		0.50	0.15	mg/L		03/16/15 12:51	03/17/15 12:12	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/19/15 03:20	1
Bicarbonate Alkalinity as CaCO3	**160**		6.0	6.0	mg/L			03/19/15 03:20	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 03:20	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/19/15 03:20	1

Client Sample ID: IRA-11-210-031315

Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48
Matrix: Water
Date Received: 03/13/15 14:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 03:20	1

Client Sample ID: Baker-031315

Lab Sample ID: 550-41605-3

Date Collected: 03/13/15 14:10
Matrix: Water
Date Received: 03/13/15 14:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/15/15 03:05	1
Benzene	ND	E8	0.50	0.12	ug/L			03/15/15 03:05	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/15/15 03:05	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/15/15 03:05	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/15/15 03:05	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/15/15 03:05	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 03:05	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/15/15 03:05	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/15/15 03:05	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/15/15 03:05	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/15/15 03:05	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/15/15 03:05	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/15/15 03:05	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/15/15 03:05	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/15/15 03:05	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/15/15 03:05	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/15/15 03:05	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 03:05	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/15/15 03:05	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/15/15 03:05	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/15/15 03:05	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/15/15 03:05	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/15/15 03:05	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/15/15 03:05	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/15/15 03:05	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/15/15 03:05	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/15/15 03:05	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/15/15 03:05	1

Client Sample ID: Baker-031315

Lab Sample ID: 550-41605-3

Date Collected: 03/13/15 14:10
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/15/15 03:05	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/15/15 03:05	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/15/15 03:05	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/15/15 03:05	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/15/15 03:05	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
Styrene	ND	E8	0.50	0.17	ug/L			03/15/15 03:05	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/15/15 03:05	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/15/15 03:05	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/15/15 03:05	1
Toluene	ND	E8	0.50	0.28	ug/L			03/15/15 03:05	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/15/15 03:05	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/15/15 03:05	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/15/15 03:05	1
Trichloroethene	**1.2**		0.50	0.24	ug/L			03/15/15 03:05	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/15/15 03:05	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/15/15 03:05	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/15/15 03:05	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/15/15 03:05	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/15/15 03:05	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/15/15 03:05	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/15/15 03:05	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/15/15 03:05	1
Hexane	ND	E8	2.0	1.6	ug/L			03/15/15 03:05	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 22:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/15/15 03:05*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/15/15 03:05*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/15/15 03:05*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/15/15 03:05*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/15/15 03:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*03/15/15 03:05*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*03/17/15 22:52*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*03/15/15 03:05*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*03/17/15 22:52*	*1*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*		*03/15/15 03:05*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*03/17/15 22:52*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**0.071**		0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 12:15	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: TB

Date Collected: 03/13/15 14:11
Date Received: 03/13/15 14:30

Lab Sample ID: 550-41605-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 18:38	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 18:38	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 18:38	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 18:38	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 18:38	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 18:38	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 18:38	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 18:38	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 18:38	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 18:38	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 18:38	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 18:38	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 18:38	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 18:38	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 18:38	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 18:38	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/17/15 18:38	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 18:38	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 18:38	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 18:38	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 18:38	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 18:38	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 18:38	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 18:38	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 18:38	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 18:38	1
2-Hexanone	ND	E8 R6	5.0	1.5	ug/L			03/17/15 18:38	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 18:38	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 18:38	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
Methylene Chloride	**0.88**	**E4**	1.0	0.67	ug/L			03/17/15 18:38	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 18:38	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 18:38	1
Naphthalene	ND	E8	2.5	0.51	ug/L			03/17/15 18:38	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1

Client Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: TB

Lab Sample ID: 550-41605-4

Date Collected: 03/13/15 14:11
Matrix: Water
Date Received: 03/13/15 14:30

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 18:38	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 18:38	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 18:38	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 18:38	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 18:38	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/17/15 18:38	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/17/15 18:38	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 18:38	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 18:38	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 18:38	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 18:38	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 18:38	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 18:38	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 18:38	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 18:38	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 18:38	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 18:38	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 18:38	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 18:38	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 18:38*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 18:38*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/17/15 18:38*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/17/15 18:38*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/17/15 18:38*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*03/17/15 18:38*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*03/17/15 18:38*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*03/17/15 18:38*	*1*

Surrogate Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
550-41605-1	IRA-26-031315	95	94	84
550-41605-2	IRA-11-210-031315	107	97	91
550-41605-3	Baker-031315	98	89	82
550-41605-3	Baker-031315	93	96	87
550-41605-3 MS	Baker-031315	86	83	76
550-41605-3 MSD	Baker-031315	84	84	79
550-41605-4	TB	99	94	91
LCS 550-58542/3	Lab Control Sample	76	76	77
LCS 550-58715/4	Lab Control Sample	81	83	84
LCSD 550-58542/4	Lab Control Sample Dup	83	86	87
LCSD 550-58715/5	Lab Control Sample Dup	86	84	75
MB 550-58542/5	Method Blank	97	86	86
MB 550-58715/6	Method Blank	97	95	88

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 550-58542/5
Matrix: Water
Analysis Batch: 58542

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/14/15 19:39	1
Benzene	ND	E8	0.50	0.12	ug/L			03/14/15 19:39	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/14/15 19:39	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/14/15 19:39	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/14/15 19:39	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/14/15 19:39	1
n-Butylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/14/15 19:39	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/14/15 19:39	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/14/15 19:39	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/14/15 19:39	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/14/15 19:39	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/14/15 19:39	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/14/15 19:39	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/14/15 19:39	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/14/15 19:39	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/14/15 19:39	1
1,2-Dichlorobenzene	ND	E8	0.50	0.22	ug/L			03/14/15 19:39	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/14/15 19:39	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/14/15 19:39	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/14/15 19:39	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/14/15 19:39	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/14/15 19:39	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/14/15 19:39	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/14/15 19:39	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/14/15 19:39	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/14/15 19:39	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/14/15 19:39	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/14/15 19:39	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/14/15 19:39	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
Methylene Chloride	ND	E8	1.0	0.67	ug/L			03/14/15 19:39	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/14/15 19:39	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/14/15 19:39	1
Naphthalene	0.856	E4	2.5	0.51	ug/L			03/14/15 19:39	1

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

Lab Sample ID: MB 550-58542/5
Matrix: Water
Analysis Batch: 58542

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
Styrene	ND	E8	0.50	0.17	ug/L			03/14/15 19:39	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/14/15 19:39	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/14/15 19:39	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/14/15 19:39	1
Toluene	ND	E8	0.50	0.28	ug/L			03/14/15 19:39	1
1,2,3-Trichlorobenzene	ND	E8	1.0	0.45	ug/L			03/14/15 19:39	1
1,2,4-Trichlorobenzene	ND	E8	1.0	0.32	ug/L			03/14/15 19:39	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/14/15 19:39	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/14/15 19:39	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/14/15 19:39	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/14/15 19:39	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/14/15 19:39	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/14/15 19:39	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/14/15 19:39	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/14/15 19:39	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/14/15 19:39	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/14/15 19:39	1
Hexane	ND	E8	2.0	1.6	ug/L			03/14/15 19:39	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/14/15 19:39*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/14/15 19:39*	*1*
4-Ethyltoluene TIC	*ND*	*E8 T4*	*ug/L*			*622-96-8*		*03/14/15 19:39*	*1*
Methyl cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*108-87-2*		*03/14/15 19:39*	*1*
Propene TIC	*ND*	*E8 T4*	*ug/L*			*115-07-1*		*03/14/15 19:39*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*03/14/15 19:39*	*1*
Toluene-d8 (Surr)	*86*		*70 - 130*		*03/14/15 19:39*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*		*03/14/15 19:39*	*1*

Lab Sample ID: LCS 550-58542/3
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	29.3		ug/L		117	38 - 150
Benzene	25.0	23.8		ug/L		95	70 - 130
Bromobenzene	25.0	24.9		ug/L		100	70 - 130
Chlorobromomethane	25.0	22.7		ug/L		91	70 - 130
Dichlorobromomethane	25.0	23.6		ug/L		94	70 - 130
Bromoform	25.0	24.2		ug/L		97	69 - 129
Bromomethane	25.0	23.0		ug/L		92	57 - 138
2-Butanone (MEK)	25.0	28.7		ug/L		115	53 - 150
n-Butylbenzene	25.0	24.5		ug/L		98	70 - 130

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

Lab Sample ID: LCS 550-58542/3
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	25.0	25.1		ug/L		100	70 - 130
Carbon disulfide	25.0	24.8		ug/L		99	64 - 145
Carbon tetrachloride	25.0	24.4		ug/L		98	70 - 143
Chlorobenzene	25.0	23.7		ug/L		95	70 - 130
Chloroethane	25.0	22.8		ug/L		91	66 - 131
Chloroform	25.0	24.0		ug/L		96	70 - 130
Chloromethane	25.0	21.6		ug/L		86	56 - 129
2-Chlorotoluene	25.0	24.7		ug/L		99	70 - 130
4-Chlorotoluene	25.0	25.6		ug/L		103	70 - 130
Chlorodibromomethane	25.0	24.9		ug/L		99	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	21.9		ug/L		88	63 - 146
Ethylene Dibromide	25.0	22.7		ug/L		91	70 - 130
Dibromomethane	25.0	23.9		ug/L		96	70 - 130
1,2-Dichlorobenzene	25.0	23.5		ug/L		94	70 - 130
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	20.7		ug/L		83	46 - 144
1,1-Dichloroethane	25.0	23.4		ug/L		94	70 - 130
1,2-Dichloroethane	25.0	23.9		ug/L		96	66 - 139
1,1-Dichloroethene	25.0	23.8		ug/L		95	63 - 131
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	69 - 127
1,2-Dichloropropane	25.0	24.1		ug/L		97	70 - 130
1,3-Dichloropropane	25.0	24.2		ug/L		97	70 - 130
2,2-Dichloropropane	25.0	28.9		ug/L		116	69 - 139
1,1-Dichloropropene	25.0	24.4		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	25.7		ug/L		103	70 - 130
trans-1,3-Dichloropropene	25.0	23.4		ug/L		94	70 - 130
Ethylbenzene	25.0	24.3		ug/L		97	70 - 130
Hexachlorobutadiene	25.0	23.6		ug/L		94	76 - 145
2-Hexanone	25.0	24.3		ug/L		97	55 - 150
Iodomethane	25.0	24.4		ug/L		98	70 - 130
Isopropylbenzene	25.0	25.2		ug/L		101	88 - 141
4-Isopropyltoluene	25.0	24.6		ug/L		98	70 - 130
Methylene Chloride	25.0	21.8		ug/L		87	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	21.7		ug/L		87	64 - 142
Methyl tert-butyl ether	25.0	25.0		ug/L		100	70 - 130
Naphthalene	25.0	20.8		ug/L		83	78 - 143
N-Propylbenzene	25.0	25.3		ug/L		101	70 - 130
Styrene	25.0	23.2		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.0		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	70 - 130
Tetrachloroethene	25.0	25.1		ug/L		100	70 - 130
Toluene	25.0	23.1		ug/L		92	70 - 130
1,2,3-Trichlorobenzene	25.0	21.4		ug/L		85	79 - 139
1,2,4-Trichlorobenzene	25.0	20.0		ug/L		80	80 - 137
1,1,1-Trichloroethane	25.0	24.1		ug/L		97	71 - 131
1,1,2-Trichloroethane	25.0	23.4		ug/L		93	70 - 130

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

Lab Sample ID: LCS 550-58542/3
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	25.0	23.7		ug/L		95	70 - 130
Trichlorofluoromethane	25.0	24.9		ug/L		100	69 - 150
1,2,3-Trichloropropane	25.0	22.2		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	25.0	24.9		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 130
Vinyl acetate	25.0	24.6		ug/L		99	67 - 148
Vinyl chloride	25.0	23.8		ug/L		95	65 - 137
Xylenes, Total	50.0	47.9		ug/L		96	70 - 130
Butadiene	25.0	23.8		ug/L		95	12 - 150
Hexane	25.0	25.6		ug/L		102	54 - 132
m-Xylene & p-Xylene	25.0	23.7		ug/L		95	70 - 130
o-Xylene	25.0	24.2		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*76*		*70 - 130*
Toluene-d8 (Surr)	*76*		*70 - 130*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*

Lab Sample ID: LCSD 550-58542/4
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	28.7		ug/L		115	38 - 150	2	35
Benzene	25.0	24.6		ug/L		98	70 - 130	3	20
Bromobenzene	25.0	24.9		ug/L		100	70 - 130	0	20
Chlorobromomethane	25.0	23.4		ug/L		94	70 - 130	3	20
Dichlorobromomethane	25.0	24.3		ug/L		97	70 - 130	3	20
Bromoform	25.0	25.2		ug/L		101	69 - 129	4	20
Bromomethane	25.0	23.8		ug/L		95	57 - 138	3	20
2-Butanone (MEK)	25.0	27.8		ug/L		111	53 - 150	3	35
n-Butylbenzene	25.0	24.6		ug/L		98	70 - 130	0	20
sec-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	1	20
Carbon disulfide	25.0	25.3		ug/L		101	64 - 145	2	33
Carbon tetrachloride	25.0	25.5		ug/L		102	70 - 143	4	20
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130	6	20
Chloroethane	25.0	23.4		ug/L		94	66 - 131	3	20
Chloroform	25.0	24.5		ug/L		98	70 - 130	2	20
Chloromethane	25.0	23.5		ug/L		94	56 - 129	8	20
2-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130	2	20
4-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130	2	20
Chlorodibromomethane	25.0	26.3		ug/L		105	70 - 130	5	20
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		104	63 - 146	17	22
Ethylene Dibromide	25.0	25.1		ug/L		100	70 - 130	10	20
Dibromomethane	25.0	26.6		ug/L		107	70 - 130	11	20
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130	4	20
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	5	20
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	2	20

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

Lab Sample ID: LCSD 550-58542/4
Matrix: Water
Analysis Batch: 58542

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	25.0	22.2		ug/L		89	46 - 144	7	23
1,1-Dichloroethane	25.0	23.8		ug/L		95	70 - 130	1	20
1,2-Dichloroethane	25.0	24.5		ug/L		98	66 - 139	2	20
1,1-Dichloroethene	25.0	26.1		ug/L		105	63 - 131	9	22
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	0	20
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	69 - 127	4	20
1,2-Dichloropropane	25.0	23.9		ug/L		96	70 - 130	1	20
1,3-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	8	20
2,2-Dichloropropane	25.0	30.5		ug/L		122	69 - 139	5	20
1,1-Dichloropropene	25.0	25.7		ug/L		103	70 - 130	5	20
cis-1,3-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	6	20
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	8	20
Ethylbenzene	25.0	26.1		ug/L		104	70 - 130	7	20
Hexachlorobutadiene	25.0	23.6		ug/L		95	76 - 145	0	20
2-Hexanone	25.0	22.7		ug/L		91	55 - 150	7	35
Iodomethane	25.0	24.5		ug/L		98	70 - 130	0	20
Isopropylbenzene	25.0	25.5		ug/L		102	88 - 141	1	20
4-Isopropyltoluene	25.0	24.4		ug/L		97	70 - 130	1	20
Methylene Chloride	25.0	22.3		ug/L		89	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	26.1		ug/L		104	64 - 142	18	25
Methyl tert-butyl ether	25.0	27.6		ug/L		110	70 - 130	10	20
Naphthalene	25.0	23.0		ug/L		92	78 - 143	10	20
N-Propylbenzene	25.0	25.1		ug/L		100	70 - 130	1	20
Styrene	25.0	25.5		ug/L		102	70 - 130	9	20
1,1,1,2-Tetrachloroethane	25.0	24.7		ug/L		99	70 - 130	3	20
1,1,2,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130	7	20
Tetrachloroethene	25.0	26.8		ug/L		107	70 - 130	6	20
Toluene	25.0	24.3		ug/L		97	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	22.0		ug/L		88	79 - 139	3	20
1,2,4-Trichlorobenzene	25.0	21.3		ug/L		85	80 - 137	6	20
1,1,1-Trichloroethane	25.0	24.0		ug/L		96	71 - 131	1	20
1,1,2-Trichloroethane	25.0	25.3		ug/L		101	70 - 130	8	20
Trichloroethene	25.0	25.2		ug/L		101	70 - 130	6	20
Trichlorofluoromethane	25.0	24.8		ug/L		99	69 - 150	0	22
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	70 - 130	13	20
1,2,4-Trimethylbenzene	25.0	24.8		ug/L		99	70 - 130	0	20
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	70 - 130	0	20
Vinyl acetate	25.0	27.8		ug/L		111	67 - 148	12	22
Vinyl chloride	25.0	24.4		ug/L		97	65 - 137	2	20
Xylenes, Total	50.0	51.4		ug/L		103	70 - 130	7	20
Butadiene	25.0	23.5		ug/L		94	12 - 150	2	35
Hexane	25.0	28.9		ug/L		116	54 - 132	12	28
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	70 - 130	7	20
o-Xylene	25.0	26.0		ug/L		104	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*83*		*70 - 130*
Toluene-d8 (Surr)	*86*		*70 - 130*

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

Lab Sample ID: LCSD 550-58542/4
Matrix: Water
Analysis Batch: 58542

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 550-41605-3 MS
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	E8	25.0	19.5		ug/L		78	29 - 139
Benzene	ND	E8	25.0	25.3		ug/L		101	68 - 131
Bromobenzene	ND	E8	25.0	25.2		ug/L		101	70 - 130
Chlorobromomethane	ND	E8	25.0	24.7		ug/L		99	64 - 132
Dichlorobromomethane	ND	E8	25.0	26.0		ug/L		104	63 - 138
Bromoform	ND	E8	25.0	25.6		ug/L		102	60 - 128
Bromomethane	ND	E8	25.0	24.8		ug/L		99	47 - 144
2-Butanone (MEK)	ND	E8	25.0	22.8		ug/L		91	31 - 143
n-Butylbenzene	ND	E8	25.0	27.2		ug/L		109	69 - 140
sec-Butylbenzene	ND	E8	25.0	26.6		ug/L		106	72 - 136
Carbon disulfide	ND	E8	25.0	26.8		ug/L		107	45 - 150
Carbon tetrachloride	ND	E8	25.0	26.0		ug/L		104	65 - 147
Chlorobenzene	ND	E8	25.0	25.4		ug/L		102	70 - 130
Chloroethane	ND	E8	25.0	24.6		ug/L		98	57 - 139
Chloroform	ND	E8	25.0	26.2		ug/L		105	63 - 131
Chloromethane	ND	E8	25.0	23.8		ug/L		95	47 - 134
2-Chlorotoluene	ND	E8	25.0	26.4		ug/L		106	71 - 131
4-Chlorotoluene	ND	E8	25.0	26.5		ug/L		106	70 - 130
Chlorodibromomethane	ND	E8	25.0	26.4		ug/L		106	65 - 134
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.3		ug/L		97	53 - 145
Ethylene Dibromide	ND	E8	25.0	26.2		ug/L		105	70 - 130
Dibromomethane	ND	E8	25.0	26.7		ug/L		107	66 - 136
1,2-Dichlorobenzene	ND	E8	25.0	25.2		ug/L		101	70 - 130
1,3-Dichlorobenzene	ND	E8	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND	E8	25.0	26.3		ug/L		105	70 - 130
Dichlorodifluoromethane	ND	E8	25.0	24.6		ug/L		99	40 - 148
1,1-Dichloroethane	ND	E8	25.0	25.8		ug/L		103	62 - 130
1,2-Dichloroethane	ND	E8	25.0	26.5		ug/L		106	54 - 147
1,1-Dichloroethene	ND	E8	25.0	27.3		ug/L		109	57 - 137
cis-1,2-Dichloroethene	ND	E8	25.0	24.8		ug/L		99	65 - 127
trans-1,2-Dichloroethene	ND	E8	25.0	25.1		ug/L		100	62 - 131
1,2-Dichloropropane	ND	E8	25.0	25.4		ug/L		102	68 - 126
1,3-Dichloropropane	ND	E8	25.0	26.4		ug/L		106	68 - 129
2,2-Dichloropropane	ND	E8	25.0	30.3		ug/L		121	60 - 146
1,1-Dichloropropene	ND	E8	25.0	27.1		ug/L		108	64 - 134
cis-1,3-Dichloropropene	ND	E8	25.0	26.7		ug/L		107	63 - 135
trans-1,3-Dichloropropene	ND	E8	25.0	23.4		ug/L		94	58 - 136
Ethylbenzene	ND	E8	25.0	26.0		ug/L		104	74 - 134
Hexachlorobutadiene	ND	E8	25.0	25.0		ug/L		100	69 - 150
2-Hexanone	ND	E8	25.0	20.1		ug/L		80	40 - 142
Iodomethane	ND	E8	25.0	26.1		ug/L		104	53 - 150

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

Lab Sample ID: 550-41605-3 MS
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	ND	E8	25.0	26.6		ug/L		106	80 - 146
4-Isopropyltoluene	ND	E8	25.0	26.6		ug/L		106	70 - 133
Methylene Chloride	ND	E8	25.0	24.3		ug/L		97	55 - 133
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	24.5		ug/L		98	52 - 143
Methyl tert-butyl ether	ND	E8	25.0	28.4		ug/L		114	67 - 138
Naphthalene	ND	E8	25.0	24.2		ug/L		97	67 - 146
N-Propylbenzene	ND	E8	25.0	27.1		ug/L		108	74 - 140
Styrene	ND	E8	25.0	24.4		ug/L		98	43 - 144
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.2		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	ND	E8	25.0	28.8		ug/L		115	63 - 137
Tetrachloroethene	ND	E8	25.0	26.1		ug/L		104	67 - 131
Toluene	ND	E8	25.0	25.0		ug/L		100	65 - 138
1,2,3-Trichlorobenzene	ND	E8	25.0	21.6		ug/L		86	74 - 139
1,2,4-Trichlorobenzene	ND	E8	25.0	23.0		ug/L		92	74 - 138
1,1,1-Trichloroethane	ND	E8	25.0	26.8		ug/L		107	64 - 138
1,1,2-Trichloroethane	ND	E8	25.0	27.1		ug/L		108	63 - 132
Trichloroethene	1.2		25.0	25.9		ug/L		99	66 - 132
Trichlorofluoromethane	ND	E8	25.0	26.9		ug/L		108	62 - 150
1,2,3-Trichloropropane	ND	E8	25.0	24.6		ug/L		98	68 - 130
1,2,4-Trimethylbenzene	ND	E8	25.0	26.7		ug/L		107	63 - 135
1,3,5-Trimethylbenzene	ND	E8	25.0	27.8		ug/L		111	66 - 137
Vinyl acetate	ND	E8	25.0	25.6		ug/L		103	47 - 150
Vinyl chloride	ND	E8	25.0	24.4		ug/L		98	55 - 146
Xylenes, Total	ND	E8	50.0	51.6		ug/L		103	68 - 131
Butadiene	ND	E8	25.0	26.5		ug/L		106	10 - 150
Hexane	ND	E8	25.0	28.4		ug/L		114	46 - 139
m-Xylene & p-Xylene	ND	E8	25.0	25.3		ug/L		101	58 - 138
o-Xylene	ND	E8	25.0	26.3		ug/L		105	66 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: 550-41605-3 MSD
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	E8	25.0	19.3		ug/L		77	29 - 139	1	35
Benzene	ND	E8	25.0	25.0		ug/L		100	68 - 131	1	32
Bromobenzene	ND	E8	25.0	26.8		ug/L		107	70 - 130	6	28
Chlorobromomethane	ND	E8	25.0	25.5		ug/L		102	64 - 132	3	35
Dichlorobromomethane	ND	E8	25.0	26.0		ug/L		104	63 - 138	0	31
Bromoform	ND	E8	25.0	25.5		ug/L		102	60 - 128	0	31
Bromomethane	ND	E8	25.0	24.2		ug/L		97	47 - 144	2	35
2-Butanone (MEK)	ND	E8	25.0	21.3		ug/L		85	31 - 143	7	35
n-Butylbenzene	ND	E8	25.0	24.7		ug/L		99	69 - 140	10	32

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

Lab Sample ID: 550-41605-3 MSD
Matrix: Water
Analysis Batch: 58542

Client Sample ID: Baker-031315
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butylbenzene	ND	E8	25.0	26.0		ug/L		104	72 - 136	2	33
Carbon disulfide	ND	E8	25.0	25.6		ug/L		102	45 - 150	4	35
Carbon tetrachloride	ND	E8	25.0	26.4		ug/L		106	65 - 147	2	35
Chlorobenzene	ND	E8	25.0	25.3		ug/L		101	70 - 130	1	30
Chloroethane	ND	E8	25.0	24.5		ug/L		98	57 - 139	0	35
Chloroform	ND	E8	25.0	25.4		ug/L		102	63 - 131	3	33
Chloromethane	ND	E8	25.0	23.1		ug/L		92	47 - 134	3	35
2-Chlorotoluene	ND	E8	25.0	25.3		ug/L		101	71 - 131	4	29
4-Chlorotoluene	ND	E8	25.0	26.0		ug/L		104	70 - 130	2	28
Chlorodibromomethane	ND	E8	25.0	26.7		ug/L		107	65 - 134	1	33
1,2-Dibromo-3-Chloropropane	ND	E8	25.0	24.3		ug/L		97	53 - 145	0	35
Ethylene Dibromide	ND	E8	25.0	25.5		ug/L		102	70 - 130	3	33
Dibromomethane	ND	E8	25.0	27.1		ug/L		109	66 - 136	2	35
1,2-Dichlorobenzene	ND	E8	25.0	25.8		ug/L		103	70 - 130	2	27
1,3-Dichlorobenzene	ND	E8	25.0	24.9		ug/L		100	70 - 130	3	28
1,4-Dichlorobenzene	ND	E8	25.0	25.6		ug/L		102	70 - 130	3	26
Dichlorodifluoromethane	ND	E8	25.0	22.7		ug/L		91	40 - 148	8	35
1,1-Dichloroethane	ND	E8	25.0	25.3		ug/L		101	62 - 130	2	34
1,2-Dichloroethane	ND	E8	25.0	26.6		ug/L		107	54 - 147	1	35
1,1-Dichloroethene	ND	E8	25.0	25.6		ug/L		102	57 - 137	6	35
cis-1,2-Dichloroethene	ND	E8	25.0	25.1		ug/L		100	65 - 127	1	34
trans-1,2-Dichloroethene	ND	E8	25.0	25.3		ug/L		101	62 - 131	1	35
1,2-Dichloropropane	ND	E8	25.0	25.6		ug/L		102	68 - 126	1	32
1,3-Dichloropropane	ND	E8	25.0	27.1		ug/L		108	68 - 129	2	33
2,2-Dichloropropane	ND	E8	25.0	28.8		ug/L		115	60 - 146	5	35
1,1-Dichloropropene	ND	E8	25.0	25.5		ug/L		102	64 - 134	6	34
cis-1,3-Dichloropropene	ND	E8	25.0	27.6		ug/L		111	63 - 135	3	35
trans-1,3-Dichloropropene	ND	E8	25.0	25.1		ug/L		100	58 - 136	7	35
Ethylbenzene	ND	E8	25.0	26.0		ug/L		104	74 - 134	0	32
Hexachlorobutadiene	ND	E8	25.0	22.8		ug/L		91	69 - 150	10	32
2-Hexanone	ND	E8	25.0	21.3		ug/L		85	40 - 142	6	35
Iodomethane	ND	E8	25.0	26.2		ug/L		105	53 - 150	1	35
Isopropylbenzene	ND	E8	25.0	26.1		ug/L		105	80 - 146	2	32
4-Isopropyltoluene	ND	E8	25.0	24.9		ug/L		100	70 - 133	7	32
Methylene Chloride	ND	E8	25.0	23.8		ug/L		95	55 - 133	2	35
4-Methyl-2-pentanone (MIBK)	ND	E8	25.0	26.3		ug/L		105	52 - 143	7	35
Methyl tert-butyl ether	ND	E8	25.0	29.4		ug/L		118	67 - 138	4	21
Naphthalene	ND	E8	25.0	23.1		ug/L		92	67 - 146	5	29
N-Propylbenzene	ND	E8	25.0	25.5		ug/L		102	74 - 140	6	32
Styrene	ND	E8	25.0	25.4		ug/L		101	43 - 144	4	35
1,1,1,2-Tetrachloroethane	ND	E8	25.0	25.6		ug/L		102	70 - 130	2	30
1,1,2,2-Tetrachloroethane	ND	E8	25.0	27.4		ug/L		110	63 - 137	5	32
Tetrachloroethene	ND	E8	25.0	25.8		ug/L		103	67 - 131	1	31
Toluene	ND	E8	25.0	25.3		ug/L		101	65 - 138	1	33
1,2,3-Trichlorobenzene	ND	E8	25.0	22.6		ug/L		90	74 - 139	4	26
1,2,4-Trichlorobenzene	ND	E8	25.0	21.4		ug/L		86	74 - 138	7	26
1,1,1-Trichloroethane	ND	E8	25.0	25.8		ug/L		103	64 - 138	4	35
1,1,2-Trichloroethane	ND	E8	25.0	26.2		ug/L		105	63 - 132	3	35

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

Lab Sample ID: 550-41605-3 MSD — **Client Sample ID: Baker-031315**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	1.2		25.0	27.6		ug/L		106	66 - 132	6	29
Trichlorofluoromethane	ND	E8	25.0	26.0		ug/L		104	62 - 150	4	35
1,2,3-Trichloropropane	ND	E8	25.0	25.9		ug/L		104	68 - 130	5	32
1,2,4-Trimethylbenzene	ND	E8	25.0	24.6		ug/L		99	63 - 135	8	31
1,3,5-Trimethylbenzene	ND	E8	25.0	25.3		ug/L		101	66 - 137	9	30
Vinyl acetate	ND	E8	25.0	27.7		ug/L		111	47 - 150	8	35
Vinyl chloride	ND	E8	25.0	23.9		ug/L		96	55 - 146	2	35
Xylenes, Total	ND	E8	50.0	50.9		ug/L		102	68 - 131	1	31
Butadiene	ND	E8	25.0	25.3		ug/L		101	10 - 150	5	35
Hexane	ND	E8	25.0	27.6		ug/L		111	46 - 139	3	35
m-Xylene & p-Xylene	ND	E8	25.0	25.5		ug/L		102	58 - 138	1	29
o-Xylene	ND	E8	25.0	25.4		ug/L		102	66 - 137	4	26

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*84*		*70 - 130*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*

Lab Sample ID: MB 550-58715/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	E8	10	7.3	ug/L			03/17/15 16:30	1
Benzene	ND	E8	0.50	0.12	ug/L			03/17/15 16:30	1
Bromobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
Chlorobromomethane	ND	E8	0.50	0.27	ug/L			03/17/15 16:30	1
Dichlorobromomethane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
Bromoform	ND	E8	1.0	0.37	ug/L			03/17/15 16:30	1
Bromomethane	ND	E8	1.0	0.67	ug/L			03/17/15 16:30	1
2-Butanone (MEK)	ND	E8	5.0	2.2	ug/L			03/17/15 16:30	1
n-Butylbenzene	0.645	B1	0.50	0.21	ug/L			03/17/15 16:30	1
sec-Butylbenzene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
tert-Butylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
Carbon disulfide	ND	E8	1.0	0.86	ug/L			03/17/15 16:30	1
Carbon tetrachloride	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
Chlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Chloroethane	ND	E8	1.0	0.25	ug/L			03/17/15 16:30	1
Chloroform	ND	E8	0.50	0.13	ug/L			03/17/15 16:30	1
Chloromethane	ND	E8	1.0	0.21	ug/L			03/17/15 16:30	1
2-Chlorotoluene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
4-Chlorotoluene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
Chlorodibromomethane	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
1,2-Dibromo-3-Chloropropane	ND	E8	5.0	0.82	ug/L			03/17/15 16:30	1
Ethylene Dibromide	ND	E8	0.50	0.30	ug/L			03/17/15 16:30	1
Dibromomethane	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
1,2-Dichlorobenzene	0.238	E4	0.50	0.22	ug/L			03/17/15 16:30	1
1,3-Dichlorobenzene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1

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

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
Dichlorodifluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1-Dichloroethane	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
1,2-Dichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
1,1-Dichloroethene	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
cis-1,2-Dichloroethene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
trans-1,2-Dichloroethene	ND	E8	0.50	0.29	ug/L			03/17/15 16:30	1
1,2-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
1,3-Dichloropropane	ND	E8	0.50	0.23	ug/L			03/17/15 16:30	1
2,2-Dichloropropane	ND	E8	1.0	0.18	ug/L			03/17/15 16:30	1
1,1-Dichloropropene	ND	E8	0.50	0.20	ug/L			03/17/15 16:30	1
cis-1,3-Dichloropropene	ND	E8	0.50	0.14	ug/L			03/17/15 16:30	1
trans-1,3-Dichloropropene	ND	E8	0.50	0.47	ug/L			03/17/15 16:30	1
Ethylbenzene	ND	E8	0.50	0.32	ug/L			03/17/15 16:30	1
Hexachlorobutadiene	ND	E8	1.0	0.28	ug/L			03/17/15 16:30	1
2-Hexanone	ND	E8	5.0	1.5	ug/L			03/17/15 16:30	1
Iodomethane	ND	E8	2.5	0.21	ug/L			03/17/15 16:30	1
Isopropylbenzene	ND	E8	0.50	0.26	ug/L			03/17/15 16:30	1
4-Isopropyltoluene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Methylene Chloride	0.670	E4	1.0	0.67	ug/L			03/17/15 16:30	1
4-Methyl-2-pentanone (MIBK)	ND	E8	2.5	1.3	ug/L			03/17/15 16:30	1
Methyl tert-butyl ether	ND	E8	0.50	0.22	ug/L			03/17/15 16:30	1
Naphthalene	3.06	B1	2.5	0.51	ug/L			03/17/15 16:30	1
N-Propylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Styrene	ND	E8	0.50	0.17	ug/L			03/17/15 16:30	1
1,1,1,2-Tetrachloroethane	ND	E8	0.50	0.35	ug/L			03/17/15 16:30	1
1,1,2,2-Tetrachloroethane	ND	E8	0.50	0.33	ug/L			03/17/15 16:30	1
Tetrachloroethene	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Toluene	ND	E8	0.50	0.28	ug/L			03/17/15 16:30	1
1,2,3-Trichlorobenzene	1.63	B1	1.0	0.45	ug/L			03/17/15 16:30	1
1,2,4-Trichlorobenzene	1.16	B1	1.0	0.32	ug/L			03/17/15 16:30	1
1,1,1-Trichloroethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,1,2-Trichloroethane	ND	E8	0.50	0.31	ug/L			03/17/15 16:30	1
Trichloroethene	ND	E8	0.50	0.24	ug/L			03/17/15 16:30	1
Trichlorofluoromethane	ND	E8	0.50	0.15	ug/L			03/17/15 16:30	1
1,2,3-Trichloropropane	ND	E8	2.0	0.78	ug/L			03/17/15 16:30	1
1,2,4-Trimethylbenzene	ND	E8	0.50	0.25	ug/L			03/17/15 16:30	1
1,3,5-Trimethylbenzene	ND	E8	0.50	0.21	ug/L			03/17/15 16:30	1
Vinyl acetate	ND	E8	2.0	0.81	ug/L			03/17/15 16:30	1
Vinyl chloride	ND	E8	0.50	0.18	ug/L			03/17/15 16:30	1
Xylenes, Total	ND	E8	1.5	0.86	ug/L			03/17/15 16:30	1
Butadiene	ND	E8	2.0	1.7	ug/L			03/17/15 16:30	1
Hexane	ND	E8	2.0	1.6	ug/L			03/17/15 16:30	1
2-ethoxy-2-methyl butane TIC	ND	E8	10	10	ug/L			03/17/15 16:30	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Cyclohexane TIC	*ND*	*E8 T4*	*ug/L*			*110-82-7*		*03/17/15 16:30*	*1*
Dicyclopentadiene TIC	*ND*	*E8 T4*	*ug/L*			*77-73-6*		*03/17/15 16:30*	*1*

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

Lab Sample ID: MB 550-58715/6
Matrix: Water
Analysis Batch: 58715

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

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
4-Ethyltoluene TIC	ND	E8 T4	ug/L			622-96-8		03/17/15 16:30	1
Methyl cyclohexane TIC	ND	E8 T4	ug/L			108-87-2		03/17/15 16:30	1
Propene TIC	ND	E8 T4	ug/L			115-07-1		03/17/15 16:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	97		70 - 130		03/17/15 16:30	1
Toluene-d8 (Surr)	95		70 - 130		03/17/15 16:30	1
4-Bromofluorobenzene (Surr)	88		70 - 130		03/17/15 16:30	1

Lab Sample ID: LCS 550-58715/4
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	18.5		ug/L		74	38 - 150
Benzene	25.0	26.6		ug/L		106	70 - 130
Bromobenzene	25.0	26.3		ug/L		105	70 - 130
Chlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Dichlorobromomethane	25.0	26.0		ug/L		104	70 - 130
Bromoform	25.0	24.7		ug/L		99	69 - 129
Bromomethane	25.0	28.6		ug/L		114	57 - 138
2-Butanone (MEK)	25.0	31.5		ug/L		126	53 - 150
n-Butylbenzene	25.0	27.1		ug/L		108	70 - 130
sec-Butylbenzene	25.0	26.8		ug/L		107	70 - 130
Carbon disulfide	25.0	29.3		ug/L		117	64 - 145
Carbon tetrachloride	25.0	28.2		ug/L		113	70 - 143
Chlorobenzene	25.0	28.4		ug/L		114	70 - 130
Chloroethane	25.0	27.8		ug/L		111	66 - 131
Chloroform	25.0	27.7		ug/L		111	70 - 130
Chloromethane	25.0	27.0		ug/L		108	56 - 129
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130
4-Chlorotoluene	25.0	28.5		ug/L		114	70 - 130
Chlorodibromomethane	25.0	28.4		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.1		ug/L		105	63 - 146
Ethylene Dibromide	25.0	28.2		ug/L		113	70 - 130
Dibromomethane	25.0	23.5		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144
1,1-Dichloroethane	25.0	28.3		ug/L		113	70 - 130
1,2-Dichloroethane	25.0	25.7		ug/L		103	66 - 139
1,1-Dichloroethene	25.0	27.8		ug/L		111	63 - 131
cis-1,2-Dichloroethene	25.0	29.4		ug/L		117	70 - 130
trans-1,2-Dichloroethene	25.0	29.1		ug/L		116	69 - 127
1,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 130
1,3-Dichloropropane	25.0	28.2		ug/L		113	70 - 130

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

Lab Sample ID: LCS 550-58715/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	31.1		ug/L		125	69 - 139
1,1-Dichloropropene	25.0	27.0		ug/L		108	70 - 130
cis-1,3-Dichloropropene	25.0	28.9		ug/L		116	70 - 130
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
Ethylbenzene	25.0	28.4		ug/L		114	70 - 130
Hexachlorobutadiene	25.0	22.9		ug/L		92	76 - 145
2-Hexanone	25.0	31.8		ug/L		127	55 - 150
Iodomethane	25.0	28.9		ug/L		115	70 - 130
Isopropylbenzene	25.0	27.3		ug/L		109	88 - 141
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130
Methylene Chloride	25.0	27.9		ug/L		112	63 - 128
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142
Methyl tert-butyl ether	25.0	27.1		ug/L		109	70 - 130
Naphthalene	25.0	26.3		ug/L		105	78 - 143
N-Propylbenzene	25.0	27.5		ug/L		110	70 - 130
Styrene	25.0	26.7		ug/L		107	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.3		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.2		ug/L		113	70 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Toluene	25.0	25.7		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	25.0	25.0		ug/L		100	79 - 139
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	80 - 137
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	71 - 131
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130
Trichloroethene	25.0	26.5		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	29.0		ug/L		116	69 - 150
1,2,3-Trichloropropane	25.0	26.2		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	25.0	26.3		ug/L		105	70 - 130
1,3,5-Trimethylbenzene	25.0	27.2		ug/L		109	70 - 130
Vinyl acetate	25.0	26.7		ug/L		107	67 - 148
Vinyl chloride	25.0	27.7		ug/L		111	65 - 137
Xylenes, Total	50.0	56.3		ug/L		113	70 - 130
Butadiene	25.0	29.3		ug/L		117	12 - 150
Hexane	25.0	27.3		ug/L		109	54 - 132
m-Xylene & p-Xylene	25.0	27.9		ug/L		111	70 - 130
o-Xylene	25.0	28.4		ug/L		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*81*		*70 - 130*
Toluene-d8 (Surr)	*83*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: LCSD 550-58715/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	25.0	20.9		ug/L		84	38 - 150	12	35

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

Lab Sample ID: LCSD 550-58715/5
Matrix: Water
Analysis Batch: 58715

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	26.3		ug/L		105	70 - 130	1	20
Bromobenzene	25.0	26.7		ug/L		107	70 - 130	1	20
Chlorobromomethane	25.0	25.0		ug/L		100	70 - 130	4	20
Dichlorobromomethane	25.0	26.8		ug/L		107	70 - 130	3	20
Bromoform	25.0	24.7		ug/L		99	69 - 129	0	20
Bromomethane	25.0	29.3		ug/L		117	57 - 138	3	20
2-Butanone (MEK)	25.0	31.1		ug/L		124	53 - 150	1	35
n-Butylbenzene	25.0	25.0		ug/L		100	70 - 130	8	20
sec-Butylbenzene	25.0	25.9		ug/L		103	70 - 130	4	20
Carbon disulfide	25.0	30.4		ug/L		122	64 - 145	4	33
Carbon tetrachloride	25.0	27.4		ug/L		109	70 - 143	3	20
Chlorobenzene	25.0	26.4		ug/L		106	70 - 130	7	20
Chloroethane	25.0	27.6		ug/L		110	66 - 131	1	20
Chloroform	25.0	28.4		ug/L		114	70 - 130	3	20
Chloromethane	25.0	27.3		ug/L		109	56 - 129	1	20
2-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	3	20
4-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	7	20
Chlorodibromomethane	25.0	24.5		ug/L		98	70 - 130	15	20
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	63 - 146	3	22
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130	7	20
Dibromomethane	25.0	24.4		ug/L		98	70 - 130	4	20
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	3	20
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	4	20
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	3	20
Dichlorodifluoromethane	25.0	26.3		ug/L		105	46 - 144	0	23
1,1-Dichloroethane	25.0	30.1		ug/L		121	70 - 130	6	20
1,2-Dichloroethane	25.0	27.2		ug/L		109	66 - 139	6	20
1,1-Dichloroethene	25.0	28.7		ug/L		115	63 - 131	3	22
cis-1,2-Dichloroethene	25.0	28.7		ug/L		115	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	30.0		ug/L		120	69 - 127	3	20
1,2-Dichloropropane	25.0	26.2		ug/L		105	70 - 130	3	20
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	10	20
2,2-Dichloropropane	25.0	32.4		ug/L		130	69 - 139	4	20
1,1-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130	15	20
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 130	2	20
Ethylbenzene	25.0	24.6		ug/L		98	70 - 130	14	20
Hexachlorobutadiene	25.0	22.3		ug/L		89	76 - 145	3	20
2-Hexanone	25.0	21.3	R6	ug/L		85	55 - 150	39	35
Iodomethane	25.0	30.3		ug/L		121	70 - 130	5	20
Isopropylbenzene	25.0	25.7		ug/L		103	88 - 141	6	20
4-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 130	3	20
Methylene Chloride	25.0	28.4		ug/L		114	63 - 128	2	21
4-Methyl-2-pentanone (MIBK)	25.0	23.8		ug/L		95	64 - 142	0	25
Methyl tert-butyl ether	25.0	28.9		ug/L		116	70 - 130	6	20
Naphthalene	25.0	26.1		ug/L		104	78 - 143	1	20
N-Propylbenzene	25.0	26.7		ug/L		107	70 - 130	3	20
Styrene	25.0	23.3		ug/L		93	70 - 130	13	20

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

Lab Sample ID: LCSD 550-58715/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58715

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	14	20
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	70 - 130	1	20
Tetrachloroethene	25.0	25.8		ug/L		103	70 - 130	7	20
Toluene	25.0	26.3		ug/L		105	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	21.6		ug/L		87	79 - 139	15	20
1,2,4-Trichlorobenzene	25.0	23.1		ug/L		93	80 - 137	11	20
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	71 - 131	7	20
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	70 - 130	0	20
Trichloroethene	25.0	27.2		ug/L		109	70 - 130	3	20
Trichlorofluoromethane	25.0	28.4		ug/L		114	69 - 150	2	22
1,2,3-Trichloropropane	25.0	23.4		ug/L		94	70 - 130	11	20
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		105	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 130	2	20
Vinyl acetate	25.0	28.7		ug/L		115	67 - 148	7	22
Vinyl chloride	25.0	28.1		ug/L		112	65 - 137	1	20
Xylenes, Total	50.0	49.4		ug/L		99	70 - 130	13	20
Butadiene	25.0	30.8		ug/L		123	12 - 150	5	35
Hexane	25.0	29.0		ug/L		116	54 - 132	6	28
m-Xylene & p-Xylene	25.0	23.8		ug/L		95	70 - 130	16	20
o-Xylene	25.0	25.6		ug/L		102	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*86*		*70 - 130*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene (Surr)	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 550-58603/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/14/15 09:58	1
Chloride	ND	E8	2.0	0.29	mg/L			03/14/15 09:58	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/14/15 09:58	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/14/15 09:58	1

Lab Sample ID: LCS 550-58603/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	4.00		mg/L		100	90 - 110
Chloride	20.0	19.1		mg/L		95	90 - 110
Nitrate as N	4.00	4.04		mg/L		101	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-58603/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	4.00		mg/L		100	90 - 110	0	20
Chloride	20.0	19.1		mg/L		95	90 - 110	0	20
Nitrate as N	4.00	4.04		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.8		mg/L		104	90 - 110	0	20

Lab Sample ID: 550-41605-1 MS — **Client Sample ID: IRA-26-031315**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.41	E4	4.00	3.99		mg/L		90	80 - 120
Chloride	100	M3	20.0	118	M3	mg/L		66	80 - 120
Nitrate as N	6.2		4.00	9.61		mg/L		86	80 - 120
Sulfate	130	M3	20.0	145	M3	mg/L		67	80 - 120

Lab Sample ID: 550-41605-1 MSD — **Client Sample ID: IRA-26-031315**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58603

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.41	E4	4.00	4.04		mg/L		91	80 - 120	1	20
Chloride	100	M3	20.0	118	M3	mg/L		67	80 - 120	0	20
Nitrate as N	6.2		4.00	9.64		mg/L		87	80 - 120	0	20
Sulfate	130	M3	20.0	145	M3	mg/L		68	80 - 120	0	20

Lab Sample ID: MB 550-58979/34 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58979

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromide	ND	E8	0.50	0.051	mg/L			03/19/15 03:31	1
Chloride	ND	E8	2.0	0.29	mg/L			03/19/15 03:31	1
Nitrate as N	ND	E8	0.10	0.051	mg/L			03/19/15 03:31	1
Sulfate	ND	E8	2.0	0.21	mg/L			03/19/15 03:31	1

Lab Sample ID: LCS 550-58979/35 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.00	3.95		mg/L		99	90 - 110
Chloride	20.0	19.9		mg/L		99	90 - 110
Nitrate as N	4.00	4.05		mg/L		101	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 550-58979/36 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.00	3.94		mg/L		98	90 - 110	0	20
Chloride	20.0	20.0		mg/L		100	90 - 110	0	20
Nitrate as N	4.00	4.03		mg/L		101	90 - 110	0	20
Sulfate	20.0	20.7		mg/L		104	90 - 110	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 550-58606/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58722 — **Prep Batch: 58606**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND	E8	0.050	0.0049	mg/L		03/16/15 12:51	03/17/15 11:40	1
Calcium	ND	E8	2.0	0.014	mg/L		03/16/15 12:51	03/17/15 11:40	1
Chromium	ND	E8	0.010	0.00050	mg/L		03/16/15 12:51	03/17/15 11:40	1
Magnesium	ND	E8	2.0	0.017	mg/L		03/16/15 12:51	03/17/15 11:40	1
Potassium	ND	E8	0.50	0.067	mg/L		03/16/15 12:51	03/17/15 11:40	1
Sodium	ND	E8	0.50	0.15	mg/L		03/16/15 12:51	03/17/15 11:40	1

Lab Sample ID: LCS 550-58606/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58722 — **Prep Batch: 58606**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.998		mg/L		100	85 - 115
Calcium	21.0	21.2		mg/L		101	85 - 115
Chromium	1.00	0.991		mg/L		99	85 - 115
Magnesium	21.0	21.1		mg/L		100	85 - 115
Potassium	20.0	19.4		mg/L		97	85 - 115
Sodium	20.0	19.5		mg/L		98	85 - 115

Lab Sample ID: LCSD 550-58606/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58722 — **Prep Batch: 58606**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.993		mg/L		99	85 - 115	1	20
Calcium	21.0	21.3		mg/L		102	85 - 115	0	20
Chromium	1.00	0.987		mg/L		99	85 - 115	0	20
Magnesium	21.0	21.1		mg/L		100	85 - 115	0	20
Potassium	20.0	19.4		mg/L		97	85 - 115	0	20
Sodium	20.0	19.5		mg/L		97	85 - 115	0	20

QC Sample Results

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 550-58948/63
Matrix: Water
Analysis Batch: 58948

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Bicarbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Carbonate Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Alkalinity, Phenolphthalein	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1
Hydroxide Alkalinity as CaCO3	ND	E8	6.0	6.0	mg/L			03/19/15 01:47	1

Lab Sample ID: LCS 550-58948/62
Matrix: Water
Analysis Batch: 58948

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity as CaCO3			250	241		mg/L		96	90 - 110		

Lab Sample ID: LCSD 550-58948/76
Matrix: Water
Analysis Batch: 58948

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity as CaCO3			250	247		mg/L		99	90 - 110	3	20

QC Association Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

GC/MS VOA

Analysis Batch: 58542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-3	Baker-031315	Total/NA	Water	8260B	
550-41605-3 MS	Baker-031315	Total/NA	Water	8260B	
550-41605-3 MSD	Baker-031315	Total/NA	Water	8260B	
LCS 550-58542/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58542/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58542/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 58715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	8260B	
550-41605-2	IRA-11-210-031315	Total/NA	Water	8260B	
550-41605-3	Baker-031315	Total/NA	Water	8260B	
550-41605-4	TB	Total/NA	Water	8260B	
LCS 550-58715/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 550-58715/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 550-58715/6	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 58603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	300.0	
550-41605-1 MS	IRA-26-031315	Total/NA	Water	300.0	
550-41605-1 MSD	IRA-26-031315	Total/NA	Water	300.0	
550-41605-2	IRA-11-210-031315	Total/NA	Water	300.0	
LCS 550-58603/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58603/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58603/2	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 58979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-2	IRA-11-210-031315	Total/NA	Water	300.0	
LCS 550-58979/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 550-58979/36	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 550-58979/34	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 58606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	200.7	
550-41605-2	IRA-11-210-031315	Total/NA	Water	200.7	
550-41605-3	Baker-031315	Total/NA	Water	200.7	
LCS 550-58606/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 550-58606/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 550-58606/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 58722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-1	IRA-26-031315	Total/NA	Water	200.7 Rev 4.4	58606

Metals (Continued)

Analysis Batch: 58722 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-2	IRA-11-210-031315	Total/NA	Water	200.7 Rev 4.4	58606
550-41605-3	Baker-031315	Total/NA	Water	200.7 Rev 4.4	58606
LCS 550-58606/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	58606
LCSD 550-58606/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	58606
MB 550-58606/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	58606

General Chemistry

Analysis Batch: 58948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
550-41605-2	IRA-11-210-031315	Total/NA	Water	SM 2320B	
LCS 550-58948/62	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 550-58948/76	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
MB 550-58948/63	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Client Sample ID: IRA-26-031315 — Lab Sample ID: 550-41605-1

Date Collected: 03/13/15 10:40 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 21:48	UT	TAL PHX
Total/NA	Analysis	300.0		1	58603	03/14/15 12:28	KLH	TAL PHX
Total/NA	Prep	200.7			58606	03/16/15 12:51	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58722	03/17/15 12:09	AJC	TAL PHX

Client Sample ID: IRA-11-210-031315 — Lab Sample ID: 550-41605-2

Date Collected: 03/13/15 12:48 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 22:20	UT	TAL PHX
Total/NA	Analysis	300.0		10	58979	03/19/15 18:51	MHH	TAL PHX
Total/NA	Analysis	300.0		1	58603	03/14/15 13:52	KLH	TAL PHX
Total/NA	Prep	200.7			58606	03/16/15 12:51	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58722	03/17/15 12:12	AJC	TAL PHX
Total/NA	Analysis	SM 2320B		1	58948	03/19/15 03:20	CDC	TAL PHX

Client Sample ID: Baker-031315 — Lab Sample ID: 550-41605-3

Date Collected: 03/13/15 14:10 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58542	03/15/15 03:05	UT	TAL PHX
Total/NA	Analysis	8260B		1	58715	03/17/15 22:52	UT	TAL PHX
Total/NA	Prep	200.7			58606	03/16/15 12:51	JTG	TAL PHX
Total/NA	Analysis	200.7 Rev 4.4		1	58722	03/17/15 12:15	AJC	TAL PHX

Client Sample ID: TB — Lab Sample ID: 550-41605-4

Date Collected: 03/13/15 14:11 — **Matrix: Water**
Date Received: 03/13/15 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	58715	03/17/15 18:38	UT	TAL PHX

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

Certification Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Laboratory: TestAmerica Phoenix

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arizona	State Program	9	AZ0728	06-09-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	2-ethoxy-2-methyl butane TIC

Method Summary

Client: AMEC Foster Wheeler E & I, Inc
Project/Site: Miracle Mile WQARF-Tucson, AZ

TestAmerica Job ID: 550-41605-1
SDG: 1420142030.5.3

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PHX
300.0	Anions, Ion Chromatography	MCAWW	TAL PHX
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL PHX
SM 2320B	Alkalinity	SM	TAL PHX

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

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

Laboratory References:

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

550-41605

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

CHAIN OF CUSTODY FORM

[ ] Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
[ ] Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803
[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 1

3/24/2015

Client Name/Address: AMEC 4600 e washington Phoenix AZ 85034

Project/PO Number: 1420142030.5.3 Miracle Mile WQARF

Project Manager: Allang Gu

Phone Number: 602-733-6000

Sampler: Sargent / Combs

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260 LL	300.0 Nitrate	200.7 Total Chromium	2320B + 300.0 alkalinity (Cl, SO4, NO3, Bromide, Alkalinity)	200.7 metals (K, Na, Ca, Mg, Boron, Total Chromium)					Special Instructions
IRA-26-031315	Aq	40ml 250ml	5	3/13/15	1040	HCl HNO3	X	X	X							ADEQ# 61603 -01
IRA-11-210-031315		40ml 250ml 500ml	5		1248	HCl HNO3	X			X	X					ADEQ# 61486 -02
BAKER-031315		40ml 250ml	4		1410	HNO3 HCl	X		X							24 hr Rush -03
TB		40ml	1		1411	HCl	X									-04

550-41605 Chain of Custody

Relinquished By:	Date/Time:	Received By:	Date/Time:
	3/13/14 1430		3-13-15 1430
Relinquished By:	Date/Time:	Received By:	Date/Time:
	3-13-15 1530		
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:
			3-14-15 0915

Turnaround Time: (Check)
Same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ____ on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2.1

Fed Ex Sat

0.9°C

Login Sample Receipt Checklist

Client: AMEC Foster Wheeler E & I, Inc

Job Number: 550-41605-1
SDG Number: 1420142030.5.3

Login Number: 41605
List Number: 1
Creator: Gaska, Kristinena

List Source: TestAmerica Phoenix

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.