

2019 Annual Groundwater Remediation Report

Jal No. 4 Gas Plant, Lea County, New Mexico NMOCD Abatement Plan Case #AP - 101

Prepared For:

El Paso Natural Gas Company, LLC
Houston, Texas

Prepared By:

AECOM
19219 Katy Freeway, Suite 100
Houston, Texas 77094

Project No. 60619406
March 2020



Environment

Submitted to:
El Paso Natural Gas Company, LLC
Houston, Texas

Submitted by:
AECOM
Houston, Texas
Project No. 60578159
March 2020

2019 Annual Groundwater Remediation Report Jal No. 4 Gas Plant, Lea County, New Mexico NMOCD Abatement Plan Case #AP - 101

A handwritten signature in blue ink, appearing to read 'Wally Gilmore'.

Prepared By:
Wally Gilmore, P.G.
Senior Project Manager

A handwritten signature in blue ink, appearing to read 'D. Price'.

Reviewed By:
Donald R. Price
Associate Vice President

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1.0 Introduction

On behalf of El Paso Natural Gas Company, LLC (EPNG), AECOM has prepared this Annual Groundwater Monitoring Report for the Jal No. 4 Gas Plant (the Plant or the Site). The Plant is comprised of approximately 181 acres of land located on the west side of State Highway 18, approximately 9 miles north of Jal, New Mexico and occupies portions of Sections 31 and 32 of Township 23 South, Range 37 East (T23S, R37E) and Section 5 of T24S, R37E in Lea County, New Mexico (**Figures 1 and 2**). The Plant is currently operated by Western Refining Inc., a subsidiary of Marathon Petroleum Corporation (Marathon).

1.1 Site Background

The Site is regulated under Abatement Plan AP-101. This report provides a description of groundwater monitoring activities and analytical results for Calendar Year 2019, as well as other abatement activities conducted during the year.

The Plant was constructed by EPNG in 1952 to treat, compress, store, and transport natural gas to EPNG's main transmission lines. From 1952 to 1981, brine and wastewater were managed in eight unlined retention ponds at the Plant (Ponds 1 through 8, **Figure 2**). Beginning in 1981, brine was instead managed in three synthetic-lined ponds (Ponds 9 through 11) and Ponds 1-8 were closed. In 1989, a leak was detected in Ponds 10 and 11 and EPNG elected to close the two ponds and construct a single lined pond in the former location of Ponds 10 and 11. In response to the detected leak, the NMOCD requested EPNG perform a Groundwater Quality Assessment. Two ponds are present on the Site today and are in the locations of Pond 9 (South Pond) and Pond 10/11 (North Pond).

A chronology of Site activities is provided as **Appendix A**.

2.0 Monitoring Wells and Sampling Schedule

2.1 Program Wells and Sampling Schedule

To assess and monitor chloride and hydrocarbon impacts to the shallow groundwater system, EPNG has installed 34 Program monitoring wells on the Plant property and adjoining properties to the east. This total includes two sets of nested monitoring wells (ACW-30S/D and ACW-32-S/D – four wells total) that were installed in June - July 2018 and two sets of paired monitoring wells (ACW-26/ACW-27 and ACW-28/ACW-29) that were installed in December 2019. A total of 31 monitoring wells (ACW-01, ACW-2, ACW-4 through ACW-7, ACW-9 through ACW-29, ACW-30S/D, and ACW-32-S/D) are currently being sampled as Program wells. The monitoring well locations are shown on **Figure 2**.

On April 14, 2003, the NMOCD approved a modification to the groundwater sampling program for the Plant. This modification allows for only sampling Program wells ACW- 13, ACW-14, and ACW-15 during the first three quarterly events and sampling all Program wells during the fourth quarter event. All collected groundwater samples are analyzed for the following constituents:

- benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX) by EPA Method 8260B;
- total dissolved solids (TDS) by Standard Method (SM) 2540C;
- specific conductance by EPA Method 120.1;
- chloride by EPA Method 9056; and
- sodium by EPA Method 6010B.

Table 1 provides a summary of the modified groundwater sampling program.

2.2 Non-Program Wells and Sampling Schedule

In addition to the Program wells, EPNG also collects groundwater samples from five Non-Program wells during the annual sample event: one onsite monitoring well (ENSR-1), one upgradient water supply well (EPNG-1), and two down-gradient active water supply wells (Oxy Water Well and Doom Water Well). EPNG-1 is located at the northwest corner of the Plant property operated by Energy Transfer Partners. The Oxy water well is located southeast of the Plant, in the approximate center of Section 5 of T24S, R37E and formerly provided water to Oxy's Myers Langlie Mattix Unit Water Injection Station. The Oxy facility is no longer manned, and the water well currently provides water to the Site's sanitary facilities. The Doom Water Well is a private water well that provides water to a residential property owned by the estate of Jimmie J. Doom, and is located approximately 1.35 miles south-southeast of the Plant, generally in the center of the northwest quarter of Section 8 of T24S, R37E.

Additionally, recovery wells RW-1, RW-2, RW-3, and RW-4 are located at the Site, along with the two monitoring wells that were converted to recovery wells (ACW-03 and ACW-

08) during prior groundwater recovery efforts. The recovery wells are not sampled during any of the quarterly events.

2.3 Depth to Groundwater Measurements

During each quarterly sampling event and prior to disturbing the water columns within each well, Program and Non-Program wells were gauged to determine the static water level. Depth to water (DTW) was measured from a surveyed mark located on the top-of-casing (TOC) of each well. This mark was observed as a notch or as a painted mark on the north side of the well casing. DTW was measured to the nearest 0.01 foot using a water level indicator and the results were recorded in the field notes. **Table 2** provides a summary of the potentiometric surface elevation data based on measured depths to groundwater, surveyed TOC elevations, and calculated groundwater elevations.

It is known that the hydraulic head in the water bearing formation is affected by the density of the water in the water column. Higher TDS water depresses the elevation of the water table surface (Post, 2007) giving the appearance of drawdown when compared to wells screened in shallower portions of the water bearing zone. This effect is exaggerated when the well has a discrete screened interval at the base of the aquifer. At this Site, wells with discrete screened intervals at the base of the aquifer within the high TDS areas have observed water table elevations ranging from 0.5 feet to almost 2.0 feet lower than their upper nested pair counterpart. Based on that criteria, monitoring wells can be designated to be in the upper or lower groundwater zone. By contouring the potentiometric surface elevation (PSE) in upper (**Figure 3**) and lower (**Figure 4**) screened wells separately, this discrepancy is largely removed and groundwater behavior in each zone can be more accurately evaluated.

As depicted on **Figures 3 and 4**, the groundwater gradient across the Site is to the southeast at approximately 0.001 to 0.002 ft/ft.

2.4 Sampling Procedures

The groundwater samples were collected in accordance with EPA low flow purging and sampling methods and quality assurance/quality control guidance. All Program wells were sampled using dedicated bladder pumps. Low flow purging was conducted at EPA-recommended purge rates of 0.1 - 0.2 liters/minute. Field parameters, including pH, specific conductivity, temperature, dissolved oxygen, oxidation-reduction potential, and water level drawdown, were monitored at 0.5-liter intervals. Turbidity was measured outside of the flow-through cell used for the field parameters. The Oxy and Doom water well samples were obtained from a water spigot after purging the system until field parameters had stabilized. A summary of the groundwater field parameter data collected during purging is provided in **Appendix B**.

After groundwater field parameters had stabilized, samples were collected by pumping groundwater directly into pre-preserved laboratory-supplied containers. The samples were then labeled, placed on ice and shipped to TestAmerica Laboratories, Inc. in Houston, Texas with chain of custody documentation. Groundwater samples were analyzed for the list of parameters described above in *Section 2.1*.

3.0 2019 Groundwater Monitoring Results

The following sections summarize the field measurement and laboratory analytical results obtained during the 2019 quarterly sampling program. Historical groundwater analytical results are summarized in **Table 3**. Field notes from the quarterly sampling events are provided in **Appendix B** and laboratory analytical reports for 2019 data are included in **Appendix C**.

3.1 Inorganic Constituents

Within New Mexico Administrative Code (NMAC) 20.6.2.3103 (B), the State has established Other Standards for Domestic Water Supply that include a standard of 250 milligrams per liter (mg/L) for chloride and 1,000 mg/L for TDS in groundwater as applicable to the affected groundwater bearing zone present beneath the Site. **Figure 5** and **Figure 6** provide isopleth maps for December 2019 chloride concentrations in upper and lower groundwater, respectively.

Chloride concentrations for upper groundwater ranged from 84 mg/L (J-flagged estimated value) in ACW-28 to 6,100 mg/L in ACW-01 during the December 2019 sampling event, as shown on **Figure 5**. As shown on **Figure 6**, the highest chloride concentrations continue to be observed in the lower groundwater samples collected from the northeastern portion of the Plant property, in the area of the former brine ponds. Inorganics are migrating both downgradient to the southeast and vertically toward the base of the water bearing unit.

3.2 Organic Constituents

The applicable Human Health Standard for benzene is 0.01 mg/L in groundwater containing a TDS level of 10,000 mg/L or less (20 NMAC 6.2, Water Quality – Ground and Surface Water Protection, filed 10-27-95, effective 12-1-95). **Figure 7** and **Figure 8** show the December 2019 benzene concentrations for the upper and lower groundwater, respectively.

Benzene concentrations exceeding the NMAC benzene standard of 0.01 mg/L were reported for the upper groundwater samples collected from source area wells ACW -01 (0.16000 mg/L), ACW-19 (0.05200 mg/L) and ACW-21 (0.022 mg/L), and from upgradient well ENSR-1 (0.01700 mg/L).

Benzene concentrations exceeding the NMAC benzene standard of 0.01 mg/L were reported for on-site lower groundwater wells ACW-04 (0.03000 mg/L), ACW-11 (0.02200 mg/L) and ACW-20 (0.06900 mg/L), and in downgradient offsite well ACW-25 (0.0240 mg/L).

The 2019 results for both upper and lower groundwater are consistent with recent benzene sampling data. Historical groundwater analytical data indicate that natural attenuation mechanisms have effectively mitigated further downgradient migration of benzene impacts in groundwater.

4.0 2019 Monitoring Well Installation

As discussed above in *Section 2.1*, monitoring wells ACW-26, 27, 28, and 29 were installed in December 2019 using mud rotary drilling methods. The monitoring wells were constructed using 4-inch nominal diameter schedule 40 PVC (ID=4 inches, OD=4.5 inches) with 25 ft of slotted screen for the upper wells (ACW-26 and ACW-28) and 20 ft of slotted screen for the lower wells (ACW-27 and ACW-29). Screened intervals for upper wells ACW-26 and ACW-28 were set at 103 to 128 bgs and 100 to 125 ft bgs, respectively. Screened intervals for lower wells ACW-27 and ACW-29 were set at 154 to 174 ft bgs and 153 to 173 ft bgs, respectively. The Soil Boring/Monitoring Well Completion Logs are provided in **Appendix D**. The New Mexico Office of the State Engineer (NMOSE) well reports are provided in **Appendix E**.

Monitor wells ACW-26 through ACW-29 were developed by surging with an electrical submersible pump and a bailer. The wells were developed until the groundwater appeared to be clear and free of sediment. Recovered groundwater was stored in two lined roll-off boxes. The water was then pumped out of the roll-off boxes by Basic Energy Services (BES) for offsite transportation and disposal at the BES West Midland SWD injection well in Midland, Texas and the roll-off boxes were removed from the Site.

The soil cuttings generated during monitoring well installation were stored in two roll-off boxes, which were later transported offsite for disposal at the Republic Services Charter Waste Landfill in Odessa, Texas.

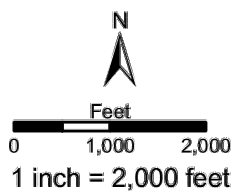
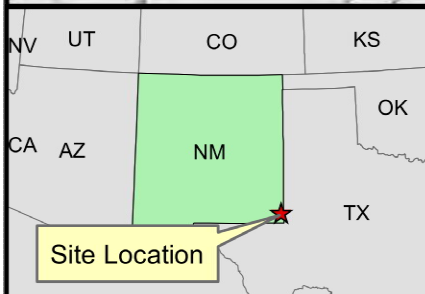
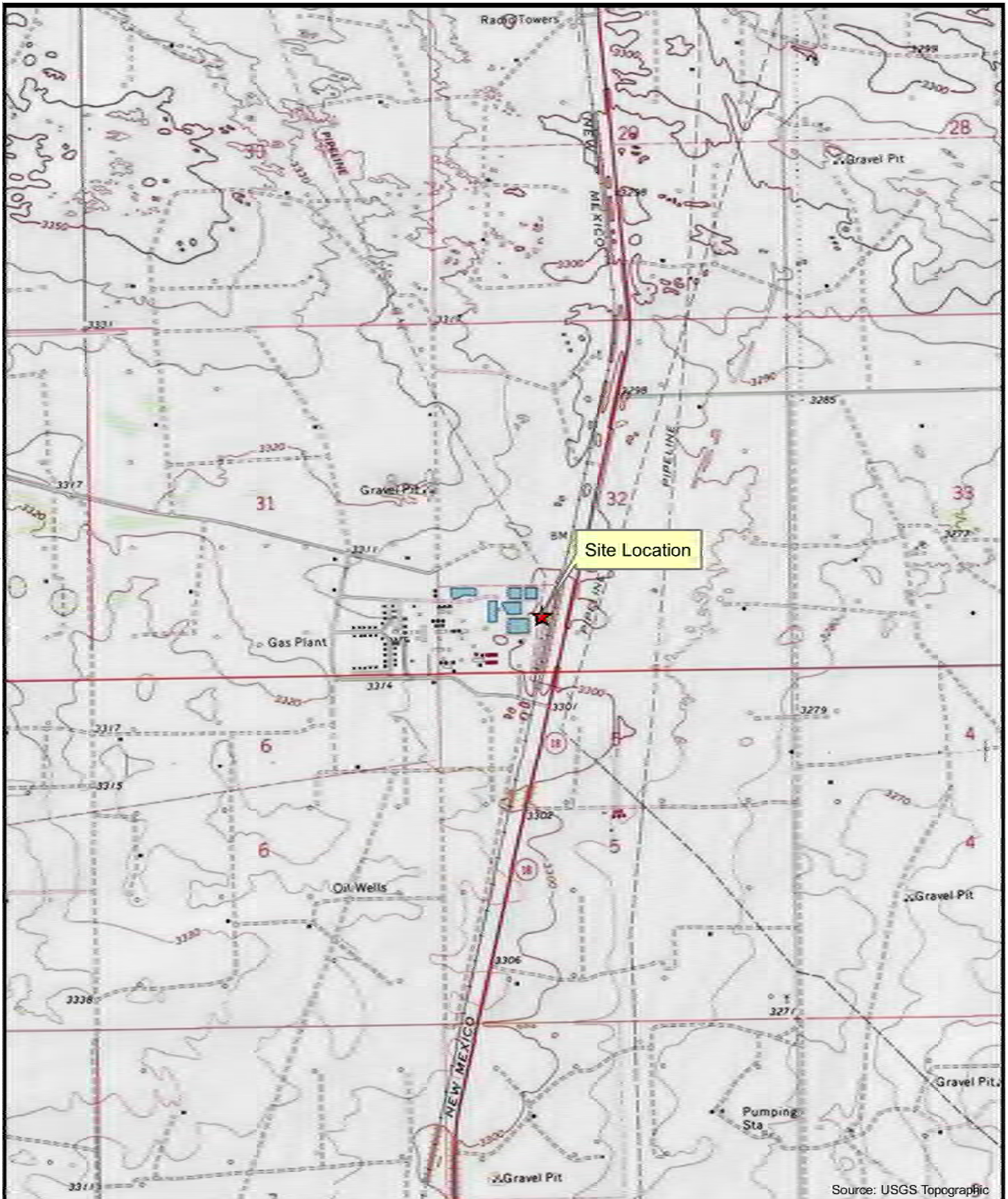
Disposal documentation for recovered groundwater and soil cuttings is provided in **Appendix F**.

5.0 Conclusions

The data presented herein support the following conclusions:

- Groundwater flow direction at the Site is generally to the southeast at hydraulic gradient of approximately 0.001 to 0.002 ft/ft.
- Historical groundwater analytical data indicate that chlorides in groundwater are generally migrating both downgradient to the southeast and vertically toward the base of the water bearing unit. During the 4th Quarter sampling event in December 2019, groundwater samples collected from 12 of 14 upper groundwater wells and from 17 of 21 lower groundwater wells contained chloride concentrations in excess of the EPA's Secondary Drinking Water Standard and New Mexico's Domestic Water Supply Standard of 250 mg/L.
- Benzene concentrations detected in the groundwater samples collected from seven on-site wells exceed the NMAC benzene standard of 0.01 mg/L. With the exception of monitoring well ACW-25, the reported benzene concentrations in all off-site downgradient wells are either below the NMAC benzene standard of 0.01 mg/L or below laboratory detection limits. Groundwater analytical data suggest that natural attenuation mechanisms have effectively mitigated further downgradient migration of the benzene impacts in groundwater.

Figures



AECOM

Title:

Site Location Map

Project:

EL PASO NATURAL GAS COMPANY
JAL #4 GAS PLANT - LEA COUNTY, NEW MEXICO
2019 ANNUAL GROUNDWATER REMEDIATION REPORT

Date:

2/20/2020

Figure

1

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LEGEND

SHELL STATE #13
DISPOSAL WELL

ACW-5
GROUNDWATER MONITOR WELL, SCREENED IN THE UPPER PORTION OF THE AQUIFER

ACW-14
GROUNDWATER MONITOR WELL, SCREENED IN THE LOWER PORTION OF THE AQUIFER

RW-2
GROUNDWATER RECOVERY WELL

EPNG-1
WATER SUPPLY WELL

EPNG-6
PLUGGED/ABANDONED WATER SUPPLY WELL

OXY
WATER SUPPLY WELL

ACW-8
GROUNDWATER MONITOR WELL CONVERTED TO GROUNDWATER RECOVERY WELL

ENSR-2
PLUGGED/ABANDONED MAY 2012

APPROXIMATE PROPERTY BOUNDARY

INJECTION WELL (WATER FLOOD)

OIL WELL

GAS WELL

LPG STORAGE WELL

FORMER POND LOCATION WITH POND NUMBER

- NOTES**
- 1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.

2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PLANT PROPERTY BOUNDARY, WELLS INSERTED FROM VARIOUS OTHER SOURCES, AND DRAWING FILES PROVIDED BY SAIC ENERGY, ENVIRONMENT & INFRASTRUCTURE, LLC OF TULSA, OKLAHOMA.

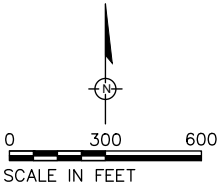
3) RECOVERY SYSTEM WAS NOT OPERATED IN 2018.

4) AERIAL PHOTO SOURCED FROM GOOGLE PRO, DATED 2/20/2019.

5) SOURCE OF LAND OWNERSHIP IS THE LEA COUNTY APPRAISAL DISTRICT.

6) SOURCE OF INDUSTRY-RELATED WELLS IS NMOC D OIL & GAS MAP.

7) MONITORING WELLS ACW-26, ACW-27, ACW-28, AND ACW-29 WERE INSTALLED IN DECEMBER 2019.



AECOM

19219 KATY FREEWAY SUITE 100
HOUSTON, TEXAS 77094
PH: (281) 646-2400
FAX: (281) 646-2401

Title:

Site Layout

Project:

EL PASO NATURAL GAS COMPANY
JAL #4 GAS PLANT - LEA COUNTY, NEW MEXICO
2019 ANNUAL GROUNDWATER REMEDIATION REPORT

Scale:

AS SHOWN

Drawn by:

NEF

Date:

3-11-2020

Chk'd by:

WG

Date:

3-11-2020

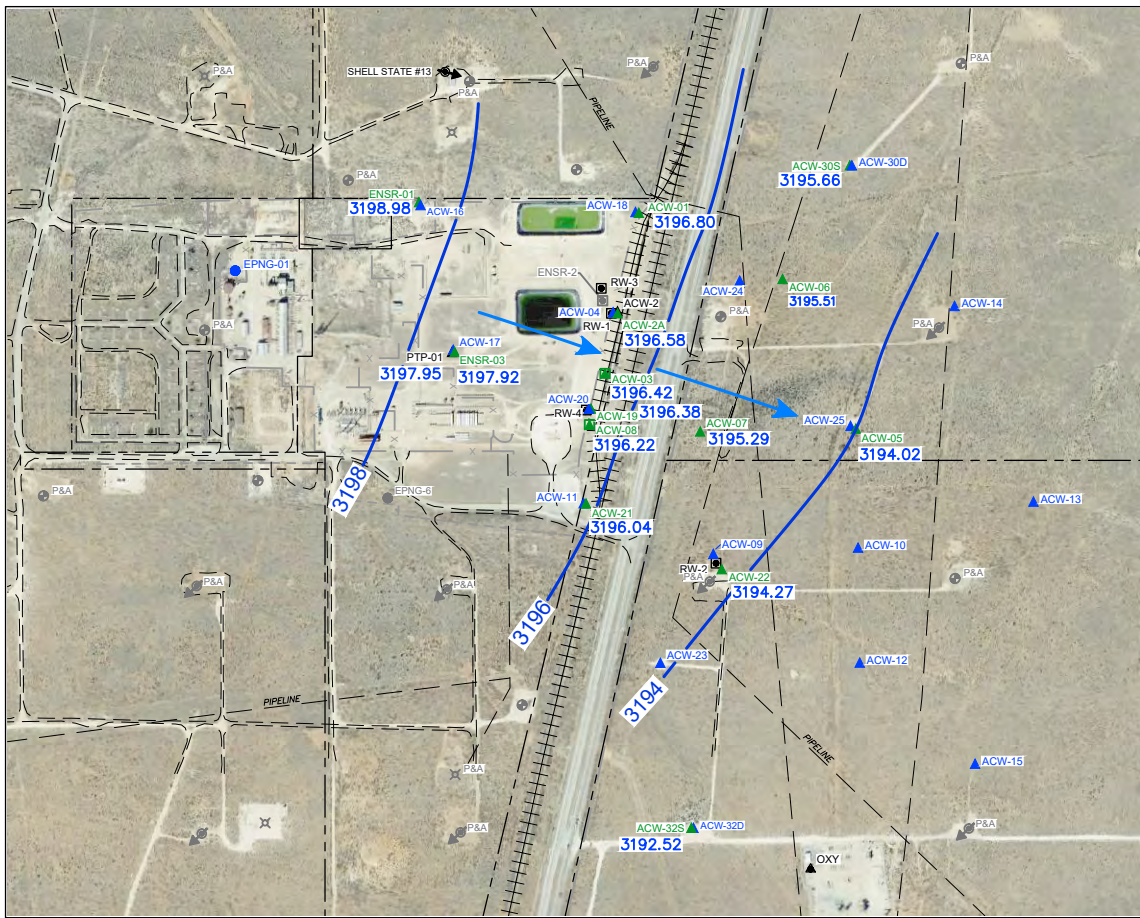
Project No.:

60619406

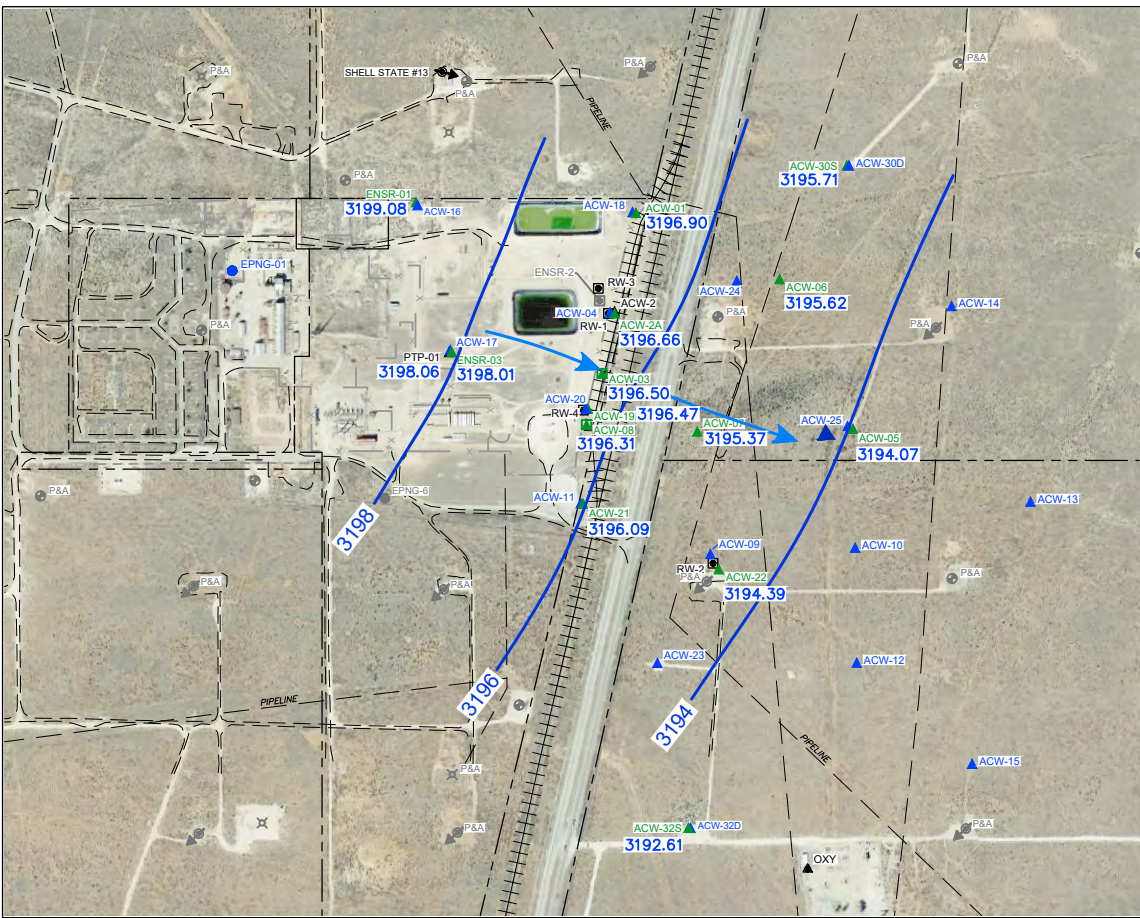
Figure:

2

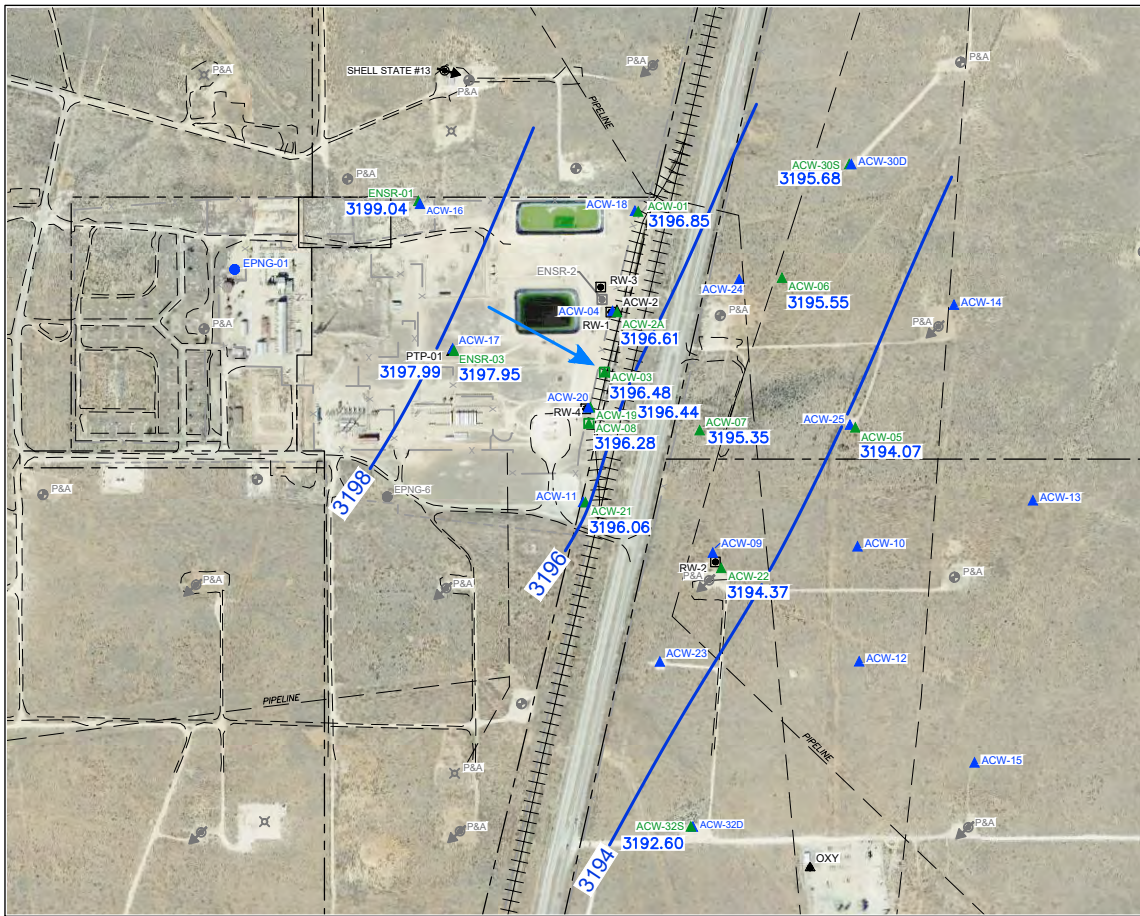
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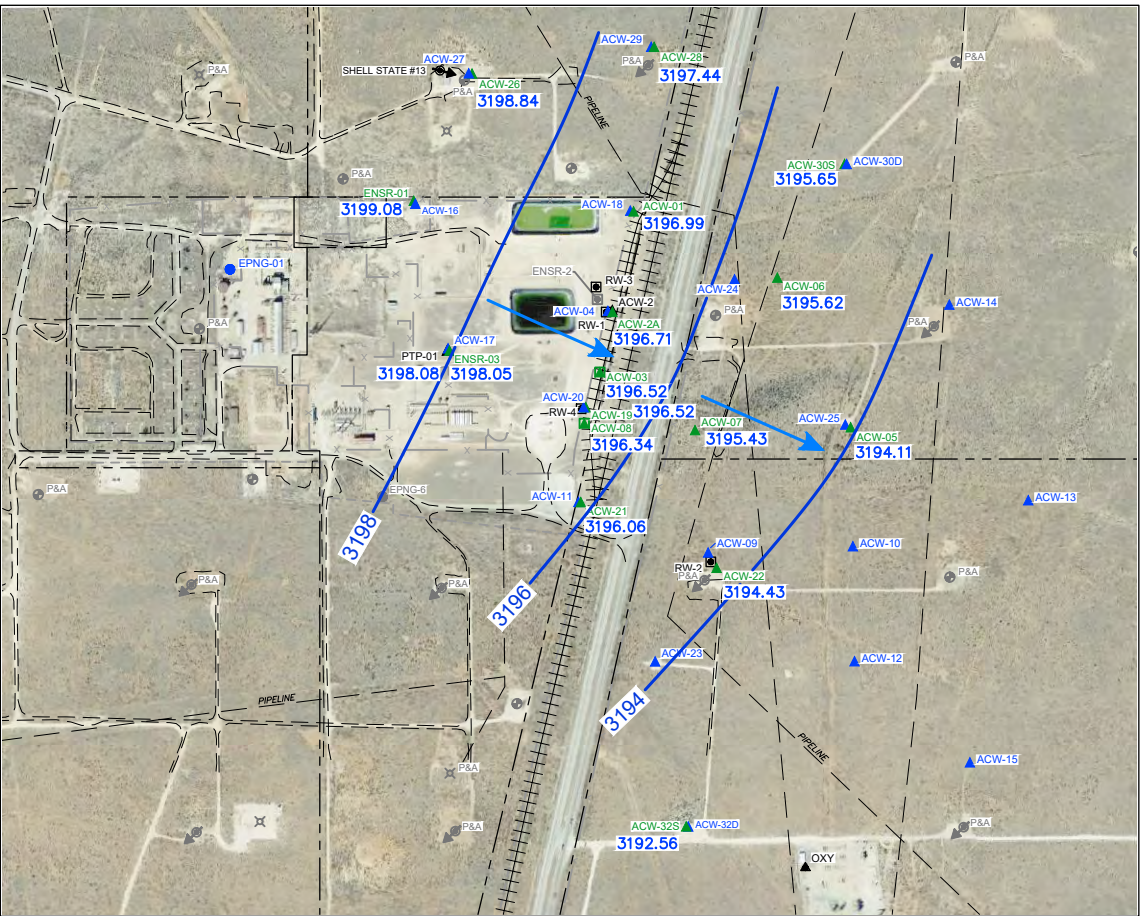
1st QUARTER 2019 (MARCH 5, 2019)



2nd QUARTER 2019 (JUNE 18, 2019)



3rd QUARTER 2019 (SEPTEMBER 10, 2019)



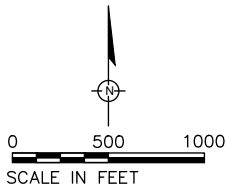
4th QUARTER 2019 (DECEMBER 18, 2019)

LEGEND

- ▲ ACW-5
3195.50
GROUNDWATER MONITOR WELL AND
GROUNDWATER ELEVATION - FEET AMSL, WELLS
SCREENED IN THE UPPER PORTION OF THE
AQUIFER
- ▲ ACW-14
GROUNDWATER MONITOR WELL, SCREENED IN
THE LOWER PORTION OF THE AQUIFER
- RW-2
GROUNDWATER RECOVERY WELL
- EPNG-1
WATER SUPPLY WELL
- EPNG-6
PLUGGED/ABANDONED WATER SUPPLY WELL
- ▲ OXY
WATER SUPPLY WELL
- ▲ ACW-8
GROUNDWATER MONITOR WELL CONVERTED TO
GROUNDWATER RECOVERY WELL
- ENSR-2
PLUGGED/ABANDONED MAY 2012
- APPROXIMATE PROPERTY BOUNDARY
- x -
FENCE
- - -
SECONDARY ROAD
- + + + + +
RAILROAD TRACK
- - -
PIPELINE
- IMPONDMENT
- 3192 —
CONTOUR OF GROUNDWATER ELEVATION - FEET
AMSL, WELLS SCREENED IN THE UPPER PORTION
OF THE AQUIFER)

NOTES

- JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF
TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF
TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
- SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH
PLANT PROPERTY BOUNDARY, WELLS INSERTED FROM OTHER
SOURCES, AND DRAWING FILES PROVIDED BY SAIC ENERGY,
ENVIRONMENT & INFRASTRUCTURE, LLC OF TULSA, OKLAHOMA.
- AERIAL PHOTO SOURCED FROM GOOGLE PRO, DATED 2/20/2019.

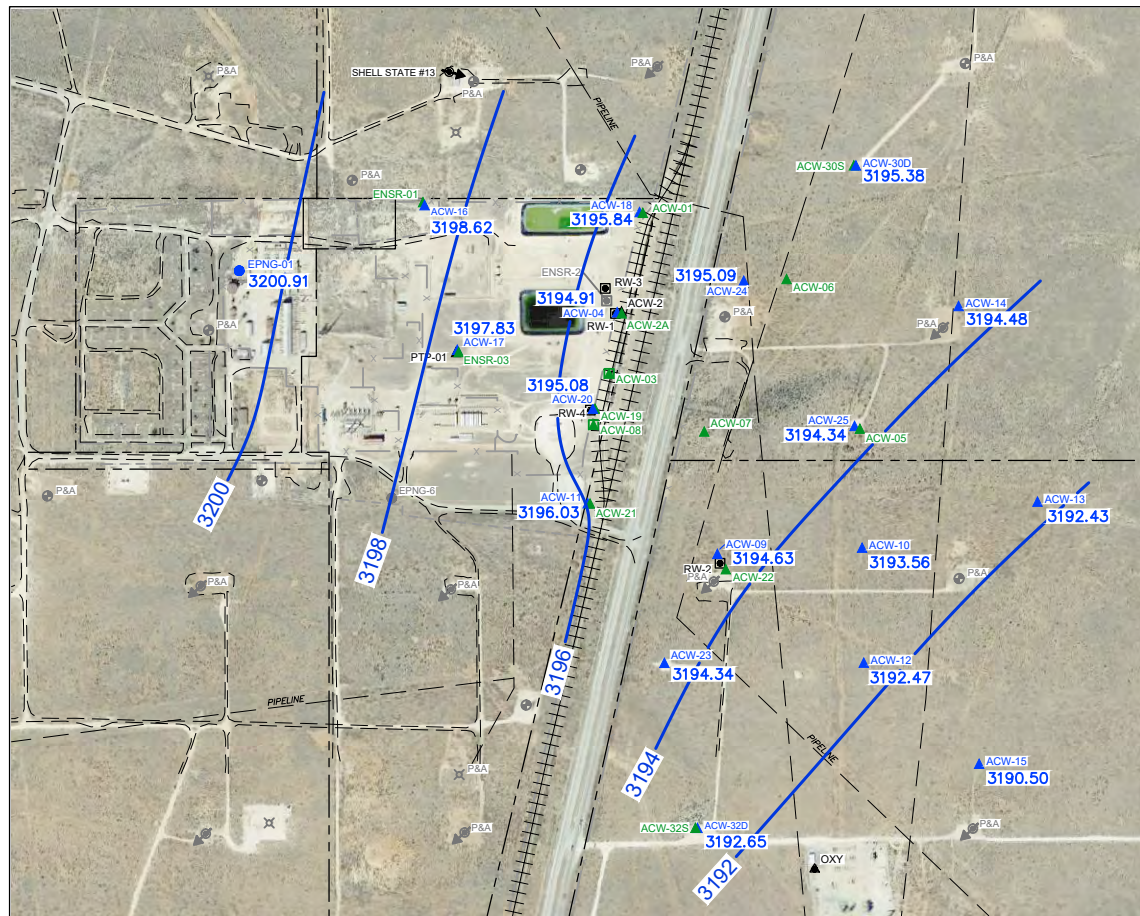


AECOM 19219 KATY FREEWAY SUITE 100 HOUSTON, TEXAS 77094 PH: (281) 646-2400 FAX: (281) 646-2401		Title: Groundwater Potentiometric Surface - Upper Groundwater	
		Project: EL PASO NATURAL GAS COMPANY JAL #4 GAS PLANT - LEA COUNTY, NEW MEXICO 2019 ANNUAL GROUNDWATER REMEDIATION REPORT	
Scale: AS SHOWN	Drawn by: NEF	Date: 3-11-2020	Project No.: 60619406
	Chk'd by: EC / WG	Date: 3-11-2020	Figure: 3

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1st QUARTER 2019 (MARCH 5, 2019)



2nd QUARTER 2019 (JUNE 18, 2019)



3rd QUARTER 2019 (SEPTEMBER 10, 2019)



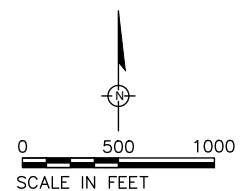
4th QUARTER 2019 (DECEMBER 18, 2019)

LEGEND

- ▲ ACW-14
3194.37
 - ▲ ACW-5
 - RW-2
 - EPNG-1
 - EPNG-6
 - ▲ OXY
 - ▲ ACW-8
 - ENSR-2
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 - x - x -
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 - 3192 —
- GROUNDWATER MONITOR WELL AND
GROUNDWATER ELEVATION - FEET AMSL, WELLS
SCREENED IN THE LOWER PORTION OF THE
AQUIFER
- GROUNDWATER MONITOR WELL, SCREENED IN
THE UPPER PORTION OF THE AQUIFER
- GROUNDWATER RECOVERY WELL
- WATER SUPPLY WELL
- PLUGGED/ABANDONED WATER SUPPLY WELL
- WATER SUPPLY WELL
- GROUNDWATER MONITOR WELL CONVERTED TO
GROUNDWATER RECOVERY WELL
- PLUGGED/ABANDONED MAY 2012
- APPROXIMATE PROPERTY BOUNDARY
- FENCE
- SECONDARY ROAD
- RAILROAD TRACK
- PIPELINE
- IMPOUNDMENT
- CONTOUR OF GROUNDWATER ELEVATION - FEET
AMSL, WELLS SCREENED IN THE LOWER PORTION OF
THE AQUIFER)

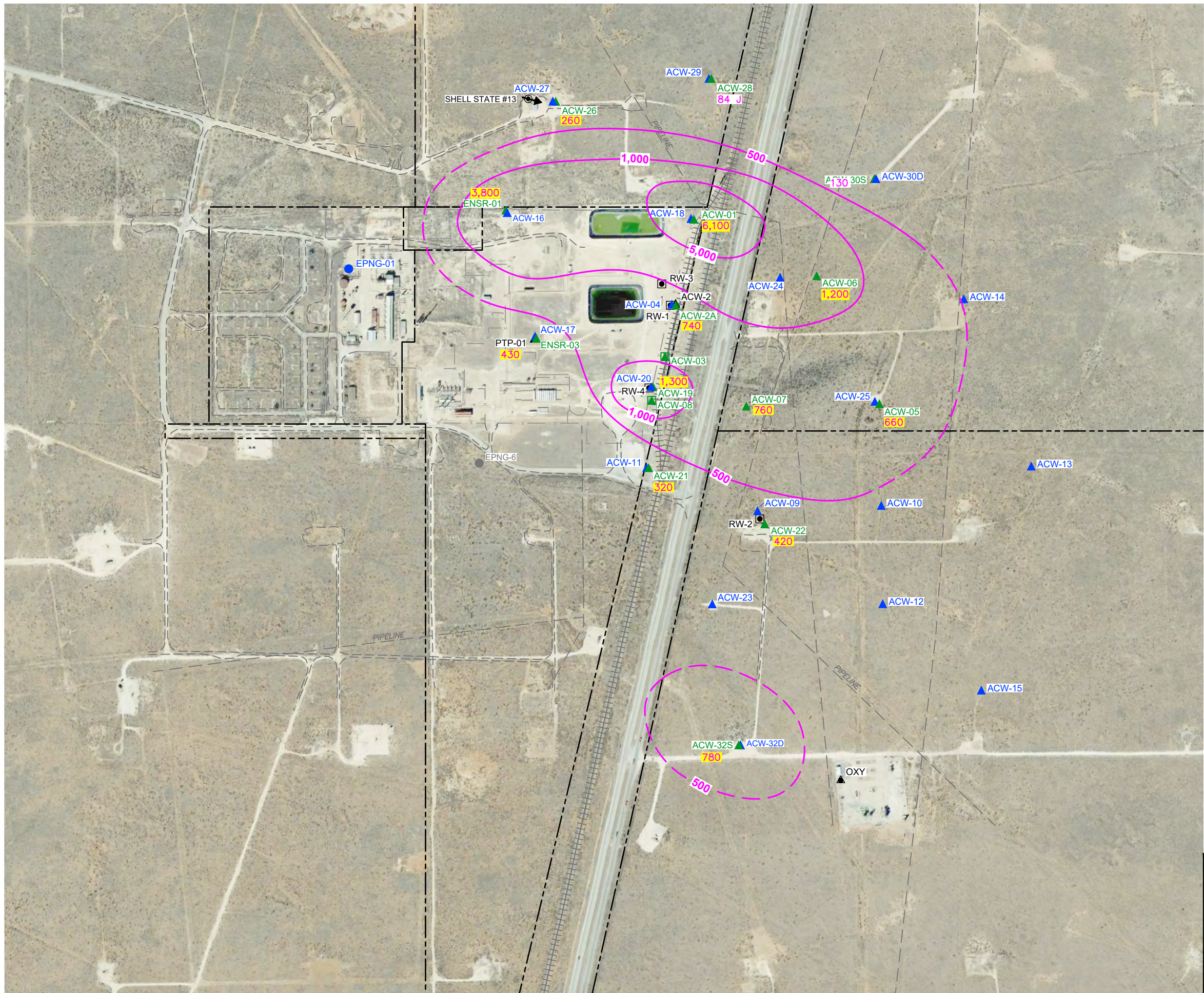
NOTES

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- AERIAL PHOTO SOURCED FROM GOOGLE PRO, DATED 2/20/2019.



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		Project: EL PASO NATURAL GAS COMPANY JAL #4 GAS PLANT - LEA COUNTY, NEW MEXICO 2019 ANNUAL GROUNDWATER REMEDIATION REPORT	
Scale: AS SHOWN	Drawn by: NEF	Date: 3-11-2020	Project No.: 60619406
	Chk'd by: EC / WG	Date: 3-11-2020	Figure: 4

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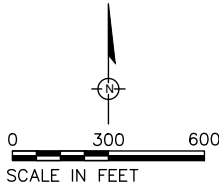


LEGEND

- SHELL STATE #13 DISPOSAL WELL
- ACW-05 GROUNDWATER MONITOR WELL, SCREENED IN THE UPPER PORTION OF THE AQUIFER
- ACW-14 GROUNDWATER MONITOR WELL, SCREENED IN THE LOWER PORTION OF THE AQUIFER
- 2,280 HIGHLIGHTED VALUES (in mg/L) INDICATE AN EXCEEDANCE
- RW-2 GROUNDWATER RECOVERY WELL
- EPNG-1 WATER SUPPLY WELL
- EPNG-6 PLUGGED/ABANDONED WATER SUPPLY WELL
- OXY WATER SUPPLY WELL
- ACW-08 GROUNDWATER MONITOR WELL CONVERTED TO GROUNDWATER RECOVERY WELL
- ENSR-2 PLUGGED/ABANDONED MAY 2012
- APPROXIMATE PROPERTY BOUNDARY
- FENCE
- SECONDARY ROAD
- RAILROAD TRACK
- PIPELINE
- IMPOUNDMENT
- 1,000 CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF CHLORIDE IN GROUNDWATER, mg/L (DASHED WHERE INFERRED)

NOTES

- EPA's SECONDARY DRINKING WATER STANDARD (SMCL) FOR CHLORIDE IN PUBLIC WATER SUPPLY SYSTEMS IS 250 MILLIGRAMS PER LITER (mg/L).
- NEW MEXICO ENVIRONMENTAL DIVISION HAS ESTABLISHED OTHER STANDARDS FOR DOMESTIC WATER SUPPLY OF 250 mg/L FOR CHLORIDE IN GROUNDWATER CONTAINING TDS LEVELS OF 10,000 mg/L OR LESS.
- JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
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- RECOVERY SYSTEM WAS NOT OPERATED IN 2018.
- AERIAL PHOTO SOURCED FROM GOOGLE PRO, DATED 2/20/2019.
- SOURCE OF INDUSTRY-RELATED WELLS IS NMOCD OIL & GAS MAP.



AECOM

19219 KATY FREEWAY SUITE 100
HOUSTON, TEXAS 77094
PH: (281) 646-2400
FAX: (281) 646-2401

Title: **Isopleth of Chloride Concentrations in Upper Groundwater December 2019**

Project: EL PASO NATURAL GAS COMPANY
JAL #4 GAS PLANT - LEA COUNTY, NEW MEXICO
2019 ANNUAL GROUNDWATER REMEDIATION REPORT

Scale: AS SHOWN

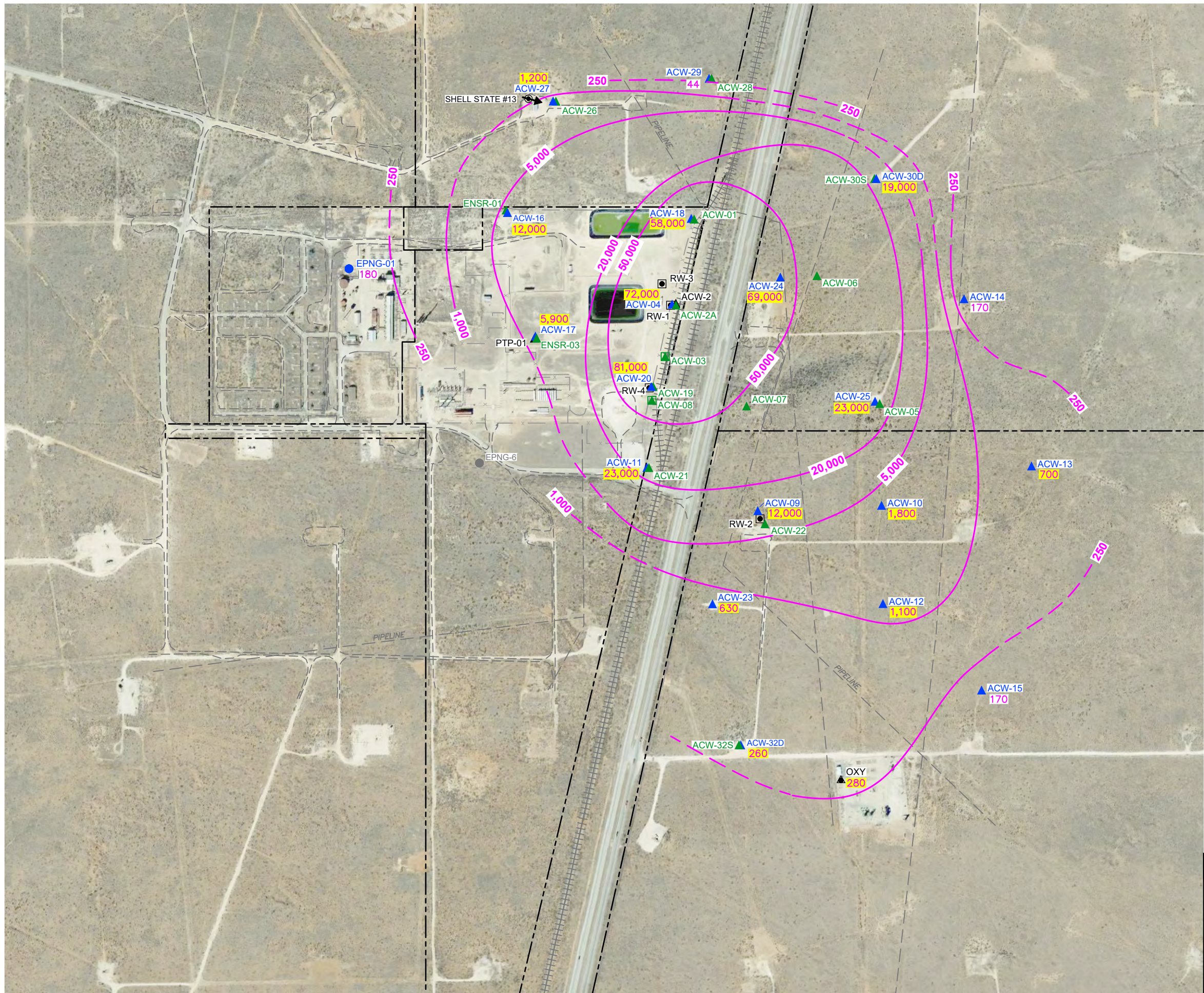
Drawn by: NEF
Chk'd by: WG

Date: 3-24-2020
Date: 3-24-2020

Project No.: 60619406

Figure: **5**

P:_ENV\PA\JOBS\Kinder Morgan\60619406 2019 Jai Monitor Well Installation\900-CAD_GIS\910-CAD\20-SHEET\SSite_Layout-Figs_2019 - Jai_4 Rev11-Mar-2020.dwg

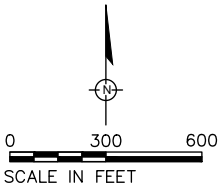


LEGEND

- SHELL STATE #13 DISPOSAL WELL
- ACW-05 GROUNDWATER MONITOR WELL, SCREENED IN THE UPPER PORTION OF THE AQUIFER
- ACW-14 GROUNDWATER MONITOR WELL, SCREENED IN THE LOWER PORTION OF THE AQUIFER
- HIGHLIGHTED VALUES (in mg/L) INDICATE AN EXCEEDANCE
- RW-2 GROUNDWATER RECOVERY WELL
- EPNG-1 WATER SUPPLY WELL
- EPNG-6 PLUGGED/ABANDONED WATER SUPPLY WELL
- OXY WATER SUPPLY WELL
- ACW-08 GROUNDWATER MONITOR WELL CONVERTED TO GROUNDWATER RECOVERY WELL
- ENSR-2 PLUGGED/ABANDONED MAY 2012
- APPROXIMATE PROPERTY BOUNDARY
- FENCE
- SECONDARY ROAD
- RAILROAD TRACK
- PIPELINE
- IMPOUNDMENT
- 1,000 CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF CHLORIDE IN GROUNDWATER, mg/L (DASHED WHERE INFERRED)

NOTES

- EPA's SECONDARY DRINKING WATER STANDARD (SMCL) FOR CHLORIDE IN PUBLIC WATER SUPPLY SYSTEMS IS 250 MILLIGRAMS PER LITER (mg/L).
- NEW MEXICO ENVIRONMENTAL DIVISION HAS ESTABLISHED OTHER STANDARDS FOR DOMESTIC WATER SUPPLY OF 250 mg/L FOR CHLORIDE IN GROUNDWATER CONTAINING TDS LEVELS OF 10,000 mg/L OR LESS.
- JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
- SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PLANT PROPERTY BOUNDARY, WELLS INSERTED FROM VARIOUS OTHER SOURCES, AND DRAWING FILES PROVIDED BY SAIC ENERGY, ENVIRONMENT & INFRASTRUCTURE, LLC OF TULSA, OKLAHOMA.
- RECOVERY SYSTEM WAS NOT OPERATED IN 2018.
- AERIAL PHOTO SOURCED FROM GOOGLE PRO, DATED 2/20/2019.
- SOURCE OF INDUSTRY-RELATED WELLS IS NMOC D OIL & GAS MAP.



AECOM

19219 KATY FREEWAY SUITE 100
HOUSTON, TEXAS 77094
PH: (281) 646-2400
FAX: (281) 646-2401

Title: **Isopleth of Chloride Concentrations in Lower Groundwater December 2019**

Project: EL PASO NATURAL GAS COMPANY
JAL #4 GAS PLANT - LEA COUNTY, NEW MEXICO
2019 ANNUAL GROUNDWATER REMEDIATION REPORT

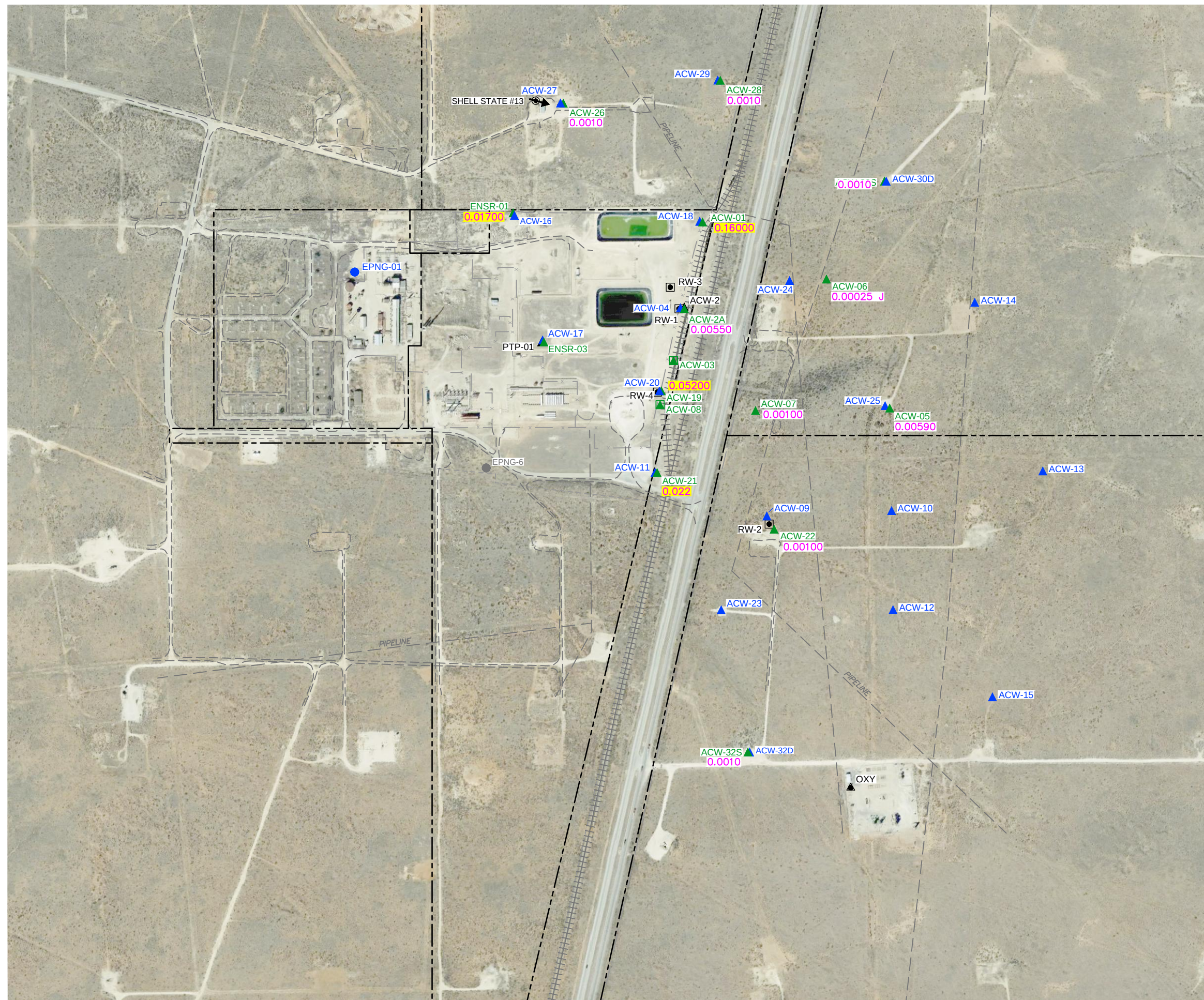
Scale: AS SHOWN

Drawn by: NEF
Chk'd by: WG

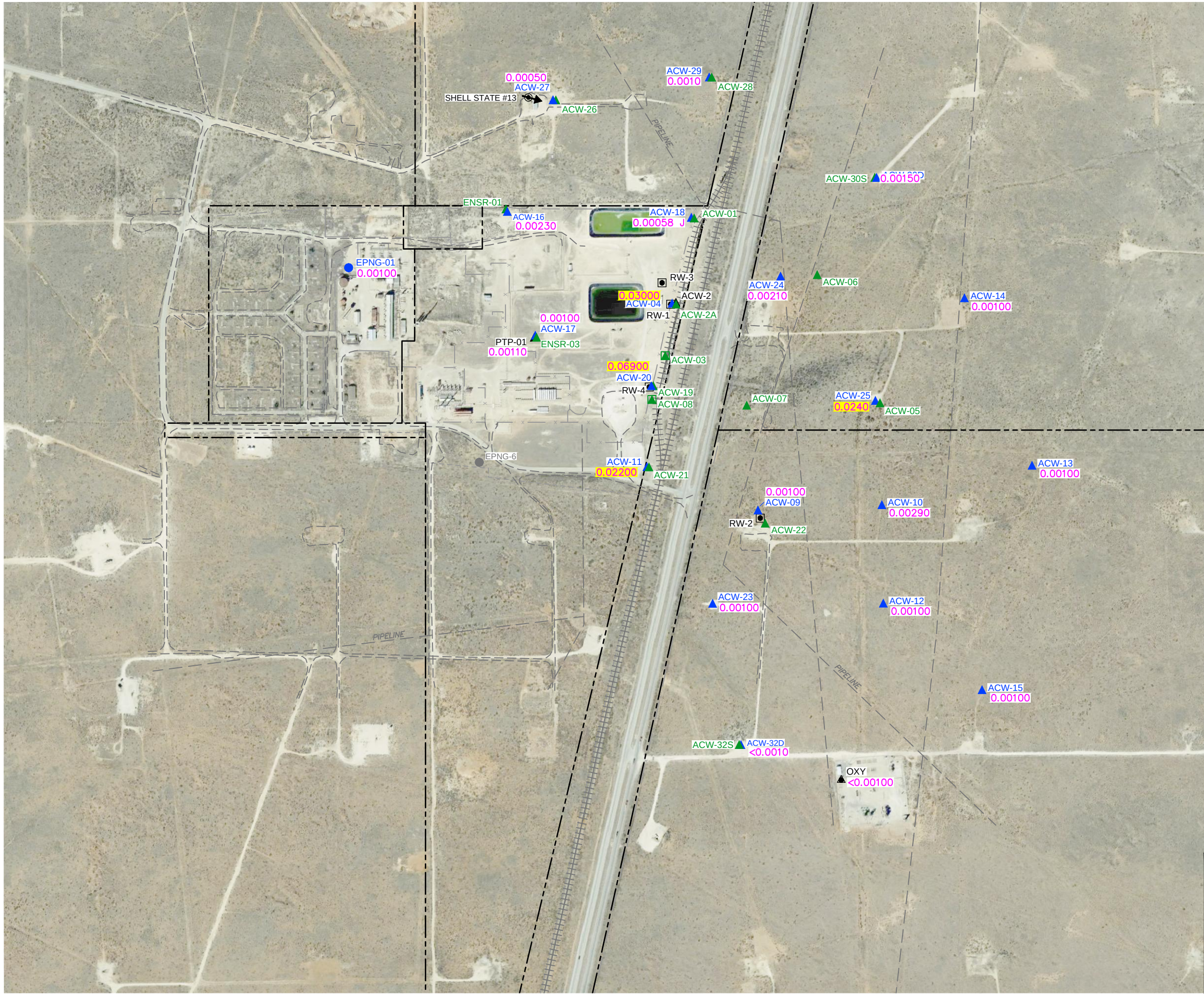
Date: 3-2-2020
Date: 3-2-2020

Project No.: 60619406

Figure: **6**



P:\LEIN\20\BOS2\Kinder Morgan\60619\06 2019 Jal Monitor Well Installation\900-CAD, GIS\910-CAD\20-SHEET\Site Layout Figs 2019 - Jal 4 Rev11-Mar-2020.dwg

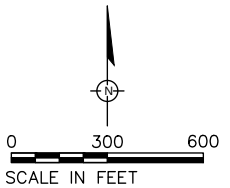


LEGEND

- SHELL STATE #13 DISPOSAL WELL
- ▲ ACW-05 GROUNDWATER MONITOR WELL, SCREENED IN THE UPPER PORTION OF THE AQUIFER
- ▲ ACW-14 GROUNDWATER MONITOR WELL, SCREENED IN THE LOWER PORTION OF THE AQUIFER
- 0.02360 HIGHLIGHTED VALUES (in mg/L) INDICATE AN EXCEEDANCE
- RW-2 GROUNDWATER RECOVERY WELL
- EPNG-1 WATER SUPPLY WELL
- EPNG-6 PLUGGED/ABANDONED WATER SUPPLY WELL
- ▲ OXY WATER SUPPLY WELL
- ▲ ACW-08 GROUNDWATER MONITOR WELL CONVERTED TO GROUNDWATER RECOVERY WELL
- ENSR-2 PLUGGED/ABANDONED MAY 2012
- APPROXIMATE PROPERTY BOUNDARY
- x - x - FENCE
- - - - SECONDARY ROAD
- ||||| RAILROAD TRACK
- - - PIPELINE
- IMPOUNDMENT

NOTES

- 1) THE APPLICABLE HUMAN HEALTH STANDARD FOR BENZENE IS 0.01 mg/L IN GROUNDWATER WITH TDS ≤ 10,000 mg/L (20 NMAC 6.2, EFFECTIVE 12-1-95).
- 2) EPA'S PRIMARY DRINKING WATER STANDARD (MCL) FOR BENZENE IN PUBLIC WATER SUPPLY SYSTEMS IS 5 µg/L (0.005 mg/L).
- 3) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
- 4) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PLANT PROPERTY BOUNDARY, WELLS INSERTED FROM VARIOUS OTHER SOURCES, AND DRAWING FILES PROVIDED BY SAIC ENERGY, ENVIRONMENT & INFRASTRUCTURE, LLC OF TULSA, OKLAHOMA.
- 5) RECOVERY SYSTEM WAS NOT OPERATED IN 2018.
- 6) AERIAL PHOTO SOURCED FROM GOOGLE PRO, DATED 2/20/2019.
- 7) SOURCE OF INDUSTRY-RELATED WELLS IS NMOCD OIL & GAS MAP.



AECOM

19219 KATY FREEWAY SUITE 100
HOUSTON, TEXAS 77094
PH: (281) 646-2400
FAX: (281) 646-2401

Title:
**Benzene Concentrations
in Lower Groundwater
December 2019**

Project:
EL PASO NATURAL GAS COMPANY
JAL #4 GAS PLANT - LEA COUNTY, NEW MEXICO
2019 ANNUAL GROUNDWATER REMEDIATION REPORT

Scale:
AS
SHOWN

Drawn by:
NEF
Chk'd by:
WG

Date:
3-11-2020
Date:
3-11-2020

Project No.:
60619406

Figure:
8

Tables

Table 1
Quarterly Monitoring Well Sampling Schedule
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	2019 Quarter 1	2019 Quarter 2	2019 Quarter 3	2019 Quarter 4
Program Wells				
ACW-01	G	G	G	G,S
ACW-02*	G	G	G	G
ACW-02A	G	G	G	G,S
ACW-03	G	G	G	G
ACW-04	G	G	G	G,S
ACW-05	G	G	G	G,S
ACW-06	G	G	G	G,S
ACW-07	G	G	G	G,S
ACW-08	G	G	G	G
ACW-09	G	G	G	G,S
ACW-10	G	G	G	G,S
ACW-11	G	G	G	G,S
ACW-12	G	G	G	G,S
ACW-13	G,S	G,S	G,S	G,S
ACW-14	G,S	G,S	G,S	G,S
ACW-15	G,S	G,S	G,S	G,S
ACW-16	G	G	G	G,S
ACW-17	G	G	G	G,S
ACW-18	G	G	G	G,S
ACW-19	G	G	G	G,S
ACW-20	G	G	G	G,S
ACW-21	G	G	G	G,S
ACW-22	G	G	G	G,S
ACW-23	G	G	G	G,S
ACW-24	G	G	G	G,S
ACW-25	G	G	G	G,S
ACW-26	--	--	--	G,S
ACW-27	--	--	--	G,S
ACW-28	--	--	--	G,S
ACW-29	--	--	--	G,S
ACW-30S	--	--	G	G,S
ACW-30D	--	--	G	G,S
ACW-32S	--	--	G	G,S
ACW-32D	--	--	G	G,S

Table 1
Quarterly Monitoring Well Sampling Schedule
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	2019 Quarter 1	2019 Quarter 2	2019 Quarter 3	2019 Quarter 4
Non-Program Wells				
ENSR-01	G	G	G	G,S
ENSR-03	G	G	G	G,S
EPNG-01	G	G	G	G,S
OXY Water Well	G,S	G,S	G,S	G,S
Doom Water Well	G,S	G,S	G,S	G,S
PTP-01	G	G	G	G
RW-01	G	G	G	G
RW-02	G	G	G	G
RW-03	G	G	G	G
RW-04	G	G	G	G

Notes:

G - gauge only

G,S - gauge and sample

PA - plugged and abandoned

*Well could not be developed, not included in sampling program

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-01	110 to 130	3302.15	3/17/2016	105.69	3196.46
			5/10/2016	105.46	3196.69
			8/16/2016	105.53	3196.62
			11/30/2016	105.96	3196.19
			3/14/2017	105.47	3196.68
			6/21/2017	105.38	3196.77
			9/21/2017	105.43	3196.72
			11/28/2017	105.43	3196.72
			2/21/2018	105.45	3196.70
			5/9/2018	105.32	3196.83
			8/7/2018	105.34	3196.81
			11/7/2018	105.39	3196.76
			3/5/2019	105.35	3196.80
			6/18/2019	105.25	3196.90
			9/10/2019	105.30	3196.85
			12/18/2019	105.16	3196.99
ACW-02A	98 to 118	3302.16	3/17/2016	105.81	3196.35
			5/10/2016	105.69	3196.47
			8/16/2016	105.72	3196.44
			11/30/2016	105.59	3196.57
			3/14/2017	105.72	3196.44
			6/21/2017	105.63	3196.53
			9/21/2017	105.68	3196.48
			11/28/2017	105.65	3196.51
			2/21/2018	105.68	3196.48
			5/9/2018	105.51	3196.65
			8/7/2018	105.54	3196.62
			11/7/2018	105.61	3196.55
			3/5/2019	105.58	3196.58
			6/18/2019	105.50	3196.66
			9/10/2019	105.55	3196.61
			12/18/2019	105.45	3196.71

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-03	112 to 132	3301.62	3/17/2016	105.62	3196.00
			5/10/2016	105.26	3196.36
			8/16/2016	105.31	3196.31
			11/30/2016	105.33	3196.29
			3/14/2017	105.32	3196.30
			6/21/2017	105.22	3196.40
			9/21/2017	105.30	3196.32
			11/28/2017	105.29	3196.33
			2/21/2018	105.28	3196.34
			5/9/2018	105.12	3196.50
			8/7/2018	105.16	3196.46
			11/7/2018	105.20	3196.42
			3/5/2019	105.20	3196.42
			6/18/2019	105.12	3196.50
			9/10/2019	105.14	3196.48
			12/18/2019	105.10	3196.52
ACW-04	154 to 169	3302.05	3/17/2016	107.61	3194.44
			5/10/2016	107.58	3194.47
			8/16/2016	107.50	3194.55
			11/30/2016	107.44	3194.61
			3/14/2017	107.42	3194.63
			6/21/2017	107.32	3194.73
			9/21/2017	107.38	3194.67
			11/28/2017	107.35	3194.70
			2/21/2018	107.36	3194.69
			5/9/2018	107.17	3194.88
			8/7/2018	107.20	3194.85
			11/7/2018	107.24	3194.81
			3/5/2019	107.23	3194.82
			6/18/2019	107.14	3194.91
			9/10/2019	107.18	3194.87
			12/18/2019	107.02	3195.03

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-05	105 to 115	3297.18	3/16/2016	103.42	3193.76
			5/10/2016	103.29	3193.89
			8/16/2016	103.24	3193.94
			11/30/2016	103.28	3193.90
			3/14/2017	103.16	3194.02
			6/21/2017	103.22	3193.96
			9/21/2017	103.16	3194.02
			11/28/2017	103.28	3193.90
			2/21/2018	103.33	3193.85
			5/9/2018	103.17	3194.01
			8/7/2018	103.12	3194.06
			11/7/2018	103.15	3194.03
			3/5/2019	103.16	3194.02
			6/18/2019	103.11	3194.07
			9/10/2019	103.11	3194.07
			12/18/2019	103.07	3194.11
ACW-06	110 to 120	3302.84	3/16/2016	107.61	3195.23
			5/10/2016	107.46	3195.38
			8/16/2016	107.40	3195.44
			11/30/2016	107.44	3195.40
			3/14/2017	107.43	3195.41
			6/21/2017	107.43	3195.41
			9/21/2017	107.34	3195.50
			11/28/2017	107.85	3194.99
			2/21/2018	107.50	3195.34
			5/9/2018	107.34	3195.50
			8/7/2018	107.28	3195.56
			11/7/2018	107.21	3195.63
			3/5/2019	107.33	3195.51
			6/18/2019	107.22	3195.62
			9/10/2019	107.29	3195.55
			12/18/2019	107.22	3195.62

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-07	105 to 115	3297.63	3/16/2016	102.44	3195.19
			5/10/2016	102.24	3195.39
			8/16/2016	102.37	3195.26
			11/30/2016	103.45	3194.18
			3/14/2017	102.38	3195.25
			6/21/2017	102.42	3195.21
			9/21/2017	102.34	3195.29
			11/28/2017	102.43	3195.20
			2/21/2018	102.49	3195.14
			5/9/2018	102.33	3195.30
			8/7/2018	102.29	3195.34
			11/7/2018	102.26	3195.37
			3/5/2019	102.34	3195.29
			6/18/2019	102.26	3195.37
			9/10/2019	102.28	3195.35
			12/18/2019	102.20	3195.43
ACW-08	140 to 173	3299.54	3/17/2016	103.58	3195.96
			5/10/2016	103.41	3196.13
			8/16/2016	103.45	3196.09
			11/30/2016	103.45	3196.09
			3/14/2017	103.43	3196.11
			6/21/2017	103.34	3196.20
			9/21/2017	103.43	3196.11
			11/28/2017	103.40	3196.14
			2/21/2018	103.39	3196.15
			5/9/2018	103.21	3196.33
			8/7/2018	103.38	3196.16
			11/7/2018	103.34	3196.20
			3/5/2019	103.32	3196.22
			6/18/2019	103.23	3196.31
			9/10/2019	103.26	3196.28
			12/18/2019	103.20	3196.34

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-09	140 to 160	3304.69	3/16/2016	110.57	3194.12
			5/10/2016	110.40	3194.29
			8/17/2016	110.45	3194.24
			11/30/2016	110.45	3194.24
			3/14/2017	110.25	3194.44
			6/21/2017	110.33	3194.36
			9/21/2017	110.28	3194.41
			11/28/2017	110.38	3194.31
			2/21/2018	110.43	3194.26
			5/9/2018	110.28	3194.41
			8/7/2018	110.21	3194.48
			11/7/2018	110.34	3194.35
			3/5/2019	110.28	3194.41
			6/18/2019	110.06	3194.63
			9/10/2019	110.20	3194.49
			12/18/2019	110.14	3194.55
ACW-10	140 to 160	3299.82	3/16/2016	106.65	3193.17
			5/10/2016	106.50	3193.32
			8/17/2016	106.55	3193.27
			11/30/2016	106.52	3193.30
			3/14/2017	106.35	3193.47
			6/21/2017	106.43	3193.39
			9/21/2017	106.40	3193.42
			11/28/2017	106.44	3193.38
			2/21/2018	106.52	3193.30
			5/9/2018	106.40	3193.42
			8/7/2018	106.33	3193.49
			11/7/2018	106.33	3193.49
			3/5/2019	106.38	3193.44
			6/18/2019	106.26	3193.56
			9/10/2019	106.31	3193.51
			12/18/2019	106.24	3193.58

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-11	140 to 160	3301.64	3/17/2016	106.09	3195.55
			5/10/2016	105.90	3195.74
			8/17/2016	105.88	3195.76
			11/30/2016	105.97	3195.67
			3/14/2017	105.80	3195.84
			6/21/2017	105.73	3195.91
			9/21/2017	105.84	3195.80
			11/28/2017	105.83	3195.81
			2/21/2018	105.78	3195.86
			5/9/2018	105.64	3196.00
			8/7/2018	105.72	3195.92
			11/7/2018	105.76	3195.88
			3/5/2019	105.69	3195.95
			6/18/2019	105.61	3196.03
			9/10/2019	105.67	3195.97
			12/18/2019	105.55	3196.09
ACW-12	150 to 170	3301.8	3/16/2016	109.70	3192.10
			5/10/2016	109.56	3192.24
			8/17/2016	109.61	3192.19
			11/30/2016	109.59	3192.21
			3/14/2017	109.40	3192.40
			6/21/2017	109.56	3192.24
			9/21/2017	109.47	3192.33
			11/28/2017	109.49	3192.31
			2/21/2018	109.62	3192.18
			5/9/2018	109.47	3192.33
			8/7/2018	109.36	3192.44
			11/7/2018	109.39	3192.41
			3/5/2019	109.43	3192.37
			6/18/2019	109.33	3192.47
			9/10/2019	109.37	3192.43
			12/18/2019	109.31	3192.49

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-13	153 to 173	3291.72	3/16/2016	99.57	3192.15
			5/10/2016	99.44	3192.28
			8/17/2016	99.50	3192.22
			11/30/2016	99.46	3192.26
			3/14/2017	99.34	3192.38
			6/21/2017	99.37	3192.35
			9/21/2017	99.41	3192.31
			11/28/2017	99.39	3192.33
			2/21/2018	99.36	3192.36
			5/9/2018	99.36	3192.36
			8/7/2018	99.35	3192.37
			11/7/2018	99.33	3192.39
			3/5/2019	99.38	3192.34
			6/18/2019	99.29	3192.43
			9/10/2019	99.32	3192.40
			12/18/2019	99.24	3192.48
ACW-14	157 to 177	3294.74	3/16/2016	100.58	3194.16
			5/10/2016	100.46	3194.28
			8/17/2016	100.43	3194.31
			11/30/2016	100.04	3194.70
			3/14/2017	100.34	3194.40
			6/21/2017	100.37	3194.37
			9/21/2017	100.42	3194.32
			11/28/2017	100.44	3194.30
			2/21/2018	100.36	3194.38
			5/9/2018	100.37	3194.37
			8/7/2018	100.34	3194.40
			11/7/2018	100.47	3194.27
			3/5/2019	100.34	3194.40
			6/18/2019	100.26	3194.48
			9/10/2019	100.31	3194.43
			12/18/2019	100.22	3194.52

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-15	150 to 170	3292.75	3/16/2016	102.56	3190.19
			5/10/2016	102.42	3190.33
			8/17/2016	102.50	3190.25
			11/30/2016	102.42	3190.33
			3/14/2017	102.28	3190.47
			6/21/2017	102.33	3190.42
			9/21/2017	102.36	3190.39
			11/28/2017	102.36	3190.39
			2/21/2018	102.35	3190.40
			5/9/2018	102.33	3190.42
			8/7/2018	102.32	3190.43
			11/7/2018	102.31	3190.44
			3/5/2019	102.32	3190.43
			6/18/2019	102.25	3190.50
			9/10/2019	102.28	3190.47
			12/18/2019	102.25	3190.50
ACW-16	150 to 170	3307.89	3/17/2016	109.65	3198.24
			5/10/2016	109.49	3198.40
			8/16/2016	109.47	3198.42
			11/30/2016	109.46	3198.43
			3/14/2017	109.48	3198.41
			6/21/2017	109.34	3198.55
			9/21/2017	109.33	3198.56
			11/28/2017	109.40	3198.49
			2/21/2018	109.50	3198.39
			5/9/2018	109.22	3198.67
			8/7/2018	109.30	3198.59
			11/7/2018	109.37	3198.52
			3/5/2019	109.40	3198.49
			6/18/2019	109.27	3198.62
			9/10/2019	109.34	3198.55
			12/18/2019	109.30	3198.59

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-17	151 to 171	3306.17	3/17/2016	108.54	3197.63
			5/10/2016	108.33	3197.84
			8/16/2016	108.31	3197.86
			11/30/2016	108.28	3197.89
			3/14/2017	108.48	3197.69
			6/21/2017	108.46	3197.71
			9/21/2017	108.43	3197.74
			11/28/2017	108.54	3197.63
			2/21/2018	108.49	3197.68
			5/9/2018	108.32	3197.85
			8/7/2018	108.44	3197.73
			11/7/2018	108.56	3197.61
			3/5/2019	108.45	3197.72
			6/18/2019	108.34	3197.83
			9/10/2019	108.40	3197.77
			12/18/2019	108.36	3197.81
ACW-18	160 to 180	3303.15	3/17/2016	107.68	3195.47
			5/10/2016	107.49	3195.66
			8/16/2016	107.55	3195.60
			11/30/2016	107.47	3195.68
			3/14/2017	107.51	3195.64
			6/21/2017	107.41	3195.74
			9/21/2017	107.43	3195.72
			11/28/2017	107.49	3195.66
			2/21/2018	107.51	3195.64
			5/9/2018	107.39	3195.76
			8/7/2018	107.40	3195.75
			11/7/2018	107.44	3195.71
			3/5/2019	107.40	3195.75
			6/18/2019	107.31	3195.84
			9/10/2019	107.37	3195.78
			12/18/2019	107.25	3195.90

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-19	98 to 118	3302.68	3/17/2016	106.51	3196.17
			5/10/2016	106.37	3196.31
			8/16/2016	106.42	3196.26
			11/30/2016	106.42	3196.26
			3/14/2017	106.42	3196.26
			6/21/2017	106.31	3196.37
			9/21/2017	106.40	3196.28
			11/28/2017	106.40	3196.28
			2/21/2018	106.38	3196.30
			5/9/2018	106.24	3196.44
			8/7/2018	106.26	3196.42
			11/7/2018	106.32	3196.36
			3/5/2019	106.30	3196.38
			6/18/2019	106.21	3196.47
			9/10/2019	106.24	3196.44
			12/18/2019	106.16	3196.52
ACW-20	154 to 174	3303.5	3/17/2016	108.78	3194.72
			5/10/2016	108.61	3194.89
			8/16/2016	108.65	3194.85
			11/30/2016	108.62	3194.88
			3/14/2016	108.62	3194.88
			6/21/2017	108.52	3194.98
			9/21/2017	108.60	3194.90
			11/28/2017	108.59	3194.91
			2/21/2018	108.59	3194.91
			5/9/2018	108.41	3195.09
			8/7/2018	108.46	3195.04
			11/7/2018	108.52	3194.98
			3/5/2019	108.51	3194.99
			6/18/2019	108.42	3195.08
			9/10/2019	108.44	3195.06
			12/18/2019	108.38	3195.12

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-21	98 to 118	3301.82	3/17/2016	106.20	3195.62
			5/10/2016	106.00	3195.82
			8/16/2016	105.97	3195.85
			11/30/2016	105.92	3195.90
			3/14/2017	105.91	3195.91
			6/21/2017	105.81	3196.01
			9/21/2017	105.82	3196.00
			11/28/2017	105.94	3195.88
			2/21/2018	105.46	3196.36
			5/9/2018	105.74	3196.08
			8/7/2018	105.84	3195.98
			11/7/2018	105.81	3196.01
			3/5/2019	105.78	3196.04
			6/18/2019	105.73	3196.09
			9/10/2019	105.76	3196.06
			12/18/2019	105.76	3196.06
ACW-22	102 to 122	3306.24	3/16/2016	112.26	3193.98
			5/10/2016	112.43	3193.81
			8/16/2016	112.15	3194.09
			11/30/2016	112.12	3194.12
			3/14/2017	111.94	3194.30
			6/21/2017	112.04	3194.20
			9/21/2017	112.03	3194.21
			11/28/2017	112.04	3194.20
			2/21/2018	112.15	3194.09
			5/9/2018	111.97	3194.27
			8/7/2018	111.91	3194.33
			11/7/2018	112.05	3194.19
			3/5/2019	111.97	3194.27
			6/18/2019	111.85	3194.39
			9/10/2019	111.87	3194.37
			12/18/2019	111.81	3194.43

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-23	147 to 167	3306.29	3/16/2016	112.41	3193.88
			5/10/2016	112.28	3194.01
			8/17/2016	112.31	3193.98
			11/30/2016	112.29	3194.00
			3/14/2017	112.11	3194.18
			6/21/2017	112.17	3194.12
			9/21/2017	112.09	3194.20
			11/28/2017	112.15	3194.14
			2/21/2018	112.25	3194.04
			5/9/2018	112.09	3194.20
			8/7/2018	112.08	3194.21
			11/7/2018	112.09	3194.20
			3/5/2019	112.07	3194.22
			6/18/2019	111.95	3194.34
			9/10/2019	111.99	3194.30
			12/18/2019	111.94	3194.35
ACW-24	166 to 186	3305.56	3/16/2016	110.74	3194.82
			5/10/2016	110.58	3194.98
			8/16/2016	110.56	3195.00
			11/30/2016	110.64	3194.92
			3/14/2017	110.60	3194.96
			6/21/2017	110.59	3194.97
			9/21/2017	110.49	3195.07
			11/28/2017	110.65	3194.91
			2/21/2018	110.69	3194.87
			5/9/2018	110.54	3195.02
			8/7/2018	110.49	3195.07
			11/7/2018	110.51	3195.05
			3/5/2019	110.54	3195.02
			6/18/2019	110.47	3195.09
			9/10/2019	110.50	3195.06
			12/18/2019	110.64	3194.92

Table 2
Potentiometric Surface Elevation
El Paso Natural Gas Company, LLC
Jal No. 4 Gas Plant
Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-25	151 to 171	3297.59	3/16/2016	103.61	3193.98
			5/10/2016	103.49	3194.10
			8/16/2016	103.44	3194.15
			11/30/2016	103.47	3194.12
			3/14/2017	103.36	3194.23
			6/21/2017	103.43	3194.16
			9/21/2017	103.37	3194.22
			11/28/2017	103.46	3194.13
			2/21/2018	103.48	3194.11
			5/9/2018	103.37	3194.22
			8/7/2018	103.31	3194.28
			11/7/2018	103.31	3194.28
			3/5/2019	103.34	3194.25
			6/18/2019	103.25	3194.34
			9/10/2019	103.30	3194.29
			12/18/2019	103.21	3194.38
ACW-26	103 to 128	3309.27	12/18/2019	110.43	3198.84
ACW-27	154 to 174	3309.22	12/18/2019	110.39	3198.83
ACW-28	100 to 125	3306.49	12/18/2019	109.05	3197.44
ACW-29	153 to 173	3306.35	12/18/2019	108.88	3197.47
ACW-30S	95 to 120	3300.17	11/7/2018	104.55	3195.62
			3/5/2019	104.51	3195.66
			6/18/2019	104.46	3195.71
			9/10/2019	104.49	3195.68
			12/18/2019	104.52	3195.65
ACW-30D	165 to 185	3300.15	11/7/2018	104.83	3195.32
			3/5/2019	104.81	3195.34
			6/18/2019	104.77	3195.38
			9/10/2019	104.80	3195.35
			12/18/2019	104.76	3195.39
ACW-32S	95 to 120	3299.60	11/7/2018	107.12	3192.48
			3/5/2019	107.08	3192.52
			6/18/2019	106.99	3192.61
			9/10/2019	107.00	3192.60
			12/18/2019	107.04	3192.56

Table 2
Potentiometric Surface Elevation
El Paso Natural Gas Company, LLC
Jal No. 4 Gas Plant
Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
ACW-32D	150 to 170	3299.61	11/7/2018	107.13	3192.48
			3/5/2019	107.06	3192.55
			6/18/2019	106.96	3192.65
			9/10/2019	107.01	3192.60
			12/18/2019	106.97	3192.64
ENSR-01	123 to 148	3306.71	3/17/2016	108.05	3198.66
			5/10/2016	107.84	3198.87
			8/17/2016	107.81	3198.90
			11/30/2016	107.81	3198.90
			3/14/2017	107.83	3198.88
			6/21/2017	107.68	3199.03
			9/21/2017	107.78	3198.93
			11/28/2017	107.74	3198.97
			2/21/2018	107.79	3198.92
			5/9/2018	107.63	3199.08
			8/7/2018	107.64	3199.07
			11/7/2018	107.65	3199.06
			3/5/2019	107.73	3198.98
			6/18/2019	107.63	3199.08
			9/10/2019	107.67	3199.04
			12/18/2019	107.63	3199.08
ENSR-03	123 to 148	3305.05	3/17/2016	107.52	3197.53
			5/10/2016	107.28	3197.77
			8/16/2016	107.25	3197.80
			11/30/2016	107.27	3197.78
			3/14/2017	107.20	3197.85
			6/21/2017	107.15	3197.90
			9/21/2017	107.25	3197.80
			11/28/2017	107.25	3197.80
			2/21/2018	107.17	3197.88
			5/9/2018	107.04	3198.01
			8/7/2018	107.13	3197.92
			11/7/2018	107.20	3197.85
			3/5/2019	107.13	3197.92
			6/18/2019	107.04	3198.01
			9/10/2019	107.10	3197.95
			12/18/2019	107.00	3198.05

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
EPNG-01	120 to 160	3310.03	3/16/2016	109.46	3200.57
			5/10/2016	109.30	3200.73
			8/16/2016	109.29	3200.74
			11/30/2016	109.31	3200.72
			3/14/2017	109.21	3200.82
			6/21/2017	109.14	3200.89
			9/21/2017	109.18	3200.85
			11/28/2017	109.22	3200.81
			2/21/2018	109.19	3200.84
			5/9/2018	109.12	3200.91
			8/7/2018	109.22	3200.81
			11/7/2018	109.18	3200.85
			3/5/2019	109.16	3200.87
			6/18/2019	109.12	3200.91
			9/10/2019	109.27	3200.76
			12/18/2019	109.16	3200.87
PTP-01	110 to 130	3305.67	3/17/2016	NM	NM
			5/10/2016	NM	NM
			8/16/2016	NM	NM
			11/30/2016	NM	NM
			3/14/2017	NM	NM
			6/21/2017	107.73	3197.94
			9/21/2017	107.83	3197.84
			11/28/2017	107.84	3197.83
			2/21/2018	107.74	3197.93
			5/9/2018	107.66	3198.01
			8/7/2018	107.73	3197.94
			11/7/2018	107.77	3197.90
			3/5/2019	107.72	3197.95
			6/18/2019	107.61	3198.06
			9/10/2019	107.68	3197.99
			12/18/2019	107.59	3198.08

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
RW-01	109 to 179	3302.16	3/17/2016	106.00	3196.16
			5/10/2016	105.87	3196.29
			8/16/2016	105.71	3196.45
			11/30/2016	105.51	3196.65
			3/14/2017	105.63	3196.53
			6/21/2017	105.61	3196.55
			9/21/2017	105.69	3196.47
			11/28/2017	105.63	3196.53
			2/21/2018	105.64	3196.52
			5/9/2018	105.49	3196.67
			8/7/2018	105.58	3196.58
			11/7/2018	105.80	3196.36
			3/5/2019	105.80	3196.36
			6/18/2019	105.51	3196.65
			9/10/2019	105.55	3196.61
			12/18/2019	105.42	3196.74
RW-02	155 to 175	3303.71	3/16/2016	109.64	3194.07
			5/10/2016	109.49	3194.22
			8/17/2016	109.52	3194.19
			11/30/2016	109.51	3194.20
			3/14/2017	109.27	3194.44
			6/21/2017	109.38	3194.33
			9/21/2017	109.34	3194.37
			11/28/2017	110.42	3193.29
			2/21/2018	109.51	3194.20
			5/9/2018	109.29	3194.42
			8/7/2018	109.29	3194.42
			11/7/2018	109.25	3194.46
			3/5/2019	109.28	3194.43
			6/18/2019	109.25	3194.46
			9/10/2019	109.27	3194.44
			12/18/2019	109.19	3194.52

Table 2
Potentiometric Surface Elevation
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	Screened Interval (ft bgl)	Top of Casing Elevation (ft-amsl)	Date Measured	Depth to Groundwater (ft-TOC)	Groundwater Elevation (ft-amsl)
RW-03	136.7 to 176.7	3302.65	3/17/2016	106.60	3196.05
			5/10/2016	106.40	3196.25
			8/16/2016	106.45	3196.20
			11/30/2016	106.41	3196.24
			3/14/2017	106.38	3196.27
			6/21/2017	106.29	3196.36
			9/21/2017	106.40	3196.25
			11/28/2017	106.39	3196.26
			2/21/2018	106.40	3196.25
			5/9/2018	106.20	3196.45
			8/7/2018	106.31	3196.34
			11/7/2018	106.29	3196.36
			3/5/2019	106.29	3196.36
			6/18/2019	106.20	3196.45
			9/10/2019	106.25	3196.40
			12/18/2019	106.16	3196.49
RW-04	154 to 174	3303.26	5/10/2016	108.36	3194.90
			8/16/2016	109.00	3194.26
			11/30/2016	108.89	3194.37
			3/14/2016	108.80	3194.46
			6/21/2017	108.72	3194.54
			9/21/2017	108.75	3194.51
			11/28/2017	108.80	3194.46
			2/21/2018	108.71	3194.55
			5/9/2018	108.51	3194.75
			8/7/2018	108.56	3194.70
			11/7/2018	108.63	3194.63
			3/5/2019	108.62	3194.64
			6/18/2019	108.50	3194.76
			9/10/2019	108.51	3194.75
			12/18/2019	108.46	3194.80

Notes:

TOC : Measured from top of casing

ft-amsl : feet above mean sea level

NM : No measurement taken

ft bgl: feet below ground level

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-01		3/5/1993	---	---	---	---	14,350	8,505	4,045	---
		9/15/1993	---	---	---	---	10,360	6,016	2,915	---
		11/10/1993	---	---	---	---	11,780	7,340	3,683	---
		4/20/1994	---	---	---	---	16,520	8,430	5,400	---
		10/27/1994	---	---	---	---	14,630	8,440	3,700	---
		5/16/1995	< 0.00500	< 0.01000	< 0.00500	< 0.01500	14,000	8,200	4,100	2,600
		6/27/1995	0.00460	0.00460	< 0.00250	0.14000	1,400	8,400	6,700	3,200
		8/29/1995	0.00600	< 0.01000	< 0.00500	< 0.01500	21,000	12,000	3,300	2,400
		2/6/1996	0.00610	0.00300	0.00190	0.00280	16,000	9,700	5,200	4,300
		2/6/1996	0.00560	0.00270	0.00300	< 0.00750	16,170	9,440	5,770	3,900
		5/8/1996	0.00630	0.00203	< 0.00100	< 0.00300	14,620	8,190	4,130	3,070
		8/13/1996	0.00350	0.00120	< 0.00100	< 0.00200	12,000	7,400	3,500	2,400
		11/5/1996	0.00560	0.00250	< 0.00100	0.00130	11,000	7,200	3,700	3,000
		5/6/1997	0.01400	0.01500	< 0.00500	0.00570	14,800	8,800	5,200	---
		11/21/1997	0.00610	0.00480	< 0.00050	0.00240	20,800	12,000	7,800	3,900
	D	11/21/1997	0.00670	0.00570	< 0.00050	0.00210	20,700	12,000	7,500	4,000
		5/12/1998	0.00680	0.01100	0.00440	0.00340	16,000	9,600	5,200	---
		10/20/1998	0.00700	0.00400	< 0.00200 Jm	< 0.00200 Jm	20,300	12,900	6,100	3,800
		5/11/1999	---	---	---	---	16,900	8,500	5,400	---
		10/19/1999	0.00750	0.00360	< 0.00200	< 0.00400	14,800	7,800	5,500	3,100
		5/9/2000	---	---	---	---	19,300	11,300	7,000	---
		10/26/2000	< 0.00200	< 0.00200	< 0.00200	0.00830	15,500	9,900	5,500	2,600
		5/1/2001	---	---	---	---	14,200	7,640	5,300	---
		10/22/2001	< 0.00200	< 0.00200	< 0.00200	0.01100	12,400	6,580	4,400	3,000
		4/29/2002	---	---	---	---	12,400	6,730	4,800	---
		11/3/2002	< 0.00500	< 0.00500	< 0.00500	< 0.01500	6,400	4,000	1,900	1,500
		11/4/2003	0.00220	< 0.00200	< 0.00200	< 0.00600	5,530	1,510	2,480	958
		11/9/2004	< 0.00100	0.00170	< 0.00100	< 0.00200	5,780	5,140	2,570	696

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-01 (cont'd)		12/12/2005	< 0.01000	< 0.01000	< 0.01000	< 0.03000	7,650	3,500	1,770	1,240
		3/5/2007	0.00110	< 0.00100	< 0.00100	< 0.00100	5,860	5,340	2,780	569
		11/12/2007	0.00120	< 0.00100	< 0.00100	< 0.00100	5,850	4,500	2,040	563
		11/17/2008	0.00420	0.00180	< 0.00100	< 0.00100	7,600	4,150	2,010	597
		2/24/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	8,540	3,980	1,480	577
		12/7/2010	0.00036 J	0.00026 J	< 0.00100	< 0.00100	4,900	4,620	1,770	676
		11/10/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	5,810	3,820	1,630	632
		11/8/2012	0.00350	0.00062 J	< 0.00100	< 0.00300	8,820	5,600	2,790	1,200
		1/13/2014	0.00300	0.00046 J	0.00028 J	0.00044 J	9,900	4,560	2,980	1,450
		1/6/2015	0.00911	0.00166	0.00053 J	0.00085 J	11,700	5,800	4,490	1,620
		12/3/2015	0.01370	0.00264 J	0.00121 J	0.00213 J	17,700	11,600 H	6,720	3,620
		12/28/2016	0.00753	0.00112	0.00056 J	0.00061 J	14,000	6,970	4,570	2,510 B
		11/28/2017	0.11500	0.00316	0.00079 J	0.00115 J	16,200	16,000	6,020	3,340 B
		11/7/2018	0.11800	< 0.00500	< 0.005	< 0.0100	21,700	8,700 H	8,450	3,710
ACW-02A		12/18/2019	0.16000	0.0021	0.00060 J	0.00091 J	17,000	9,300	6,100 B	4,000 B
		5/6/1997	0.14000	0.10000	< 0.05000	< 0.10000	26,800	17,000	11,000	
		10/20/1997	0.08900	0.10000	0.01300	0.02600	24,400	16,000	8,600	6,000
		5/11/1998	0.12000	0.21000	0.02000	0.03300	26,000	16,000	8,200	---
		10/19/1998	0.18000	0.34000	0.03800	0.07200	25,200	20,200	7,800	6,400
		5/12/1999	---	---	---	---	24,400	12,000	7,400	---
		10/18/1999	0.01700 PM	0.04200 PM	0.00810 P	0.01400 PM	24,000	13,000	7,600	6,100
		5/8/2000	---	---	---	---	21,500	13,600	7,200	---
		10/26/2000	0.03500	0.07800	0.01600	0.03200	19,100	12,800	6,500	3,600
		5/2/2001	---	---	---	---	18,500	10,900	5,400	---
		10/22/2001	0.03900	0.03400	0.03000	0.05700	19,900	12,100	4,600	5,200
		4/30/2002	---	---	---	---	22,300	14,000	6,300	---
		11/3/2002	0.06100	0.03200	0.03500	0.04700	19,000	8,800	8,900	5,800
		11/4/2003	0.04560 P	0.01790 P	0.02480 P	0.04130 P	18,530	9,050	4,740	4,160

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-02A (cont'd)	D	11/4/2003	0.04460 P	0.01850 P	0.02340 P	0.03770 P	---	9,280	4,560	4,280
		11/9/2004	0.04790	0.01710	0.01500	0.02840	13,730	11,300	4,290	3,950
		12/12/2005	0.02290	0.01220 J	< 0.02000	< 0.06000	23,500	13,200	5,520	5,570
		3/5/2007	0.04400	0.01400	0.03000	0.04200	18,650	11,900	5,760	4,270
		11/12/2007	0.12000	0.00390	0.06600	0.06100	19,420	11,900	5,950	4,570
		11/17/2008	0.01600	0.00240	0.00610	0.00870	21,100	12,700	7,400	4,040
		2/24/2010	0.03500	0.01100	0.01800	0.01750	17,600	9,640	6,700	3,780
		12/7/2010	0.03000	0.01400	0.01800	0.02130	27,500	10,600	6,280	3,660
		11/9/2011	0.01680	0.00110	0.00320	0.00350	15,300	9,420	4,560	3,070
		11/8/2012	0.00580	0.00060 J	0.00230	0.00200 J	11,400	6,920	4,160	2,740
		1/10/2014	0.00376	0.00074 J	0.00114	0.00116 J	12,600	7,380	3,390	2,890
		1/7/2015	0.00318	0.00100 J	0.00128	0.00097 J	11,800	5,680	3,660	2,540
		12/3/2015	0.00537	0.00308	0.00259	0.00311	10,600	6,750 H	3,140	2,430
		12/1/2016	0.00614 J	< 0.00396	< 0.00424	< 0.00732	10,100	6,390	2,560	2,260 B
		11/28/2017	0.00481	0.00191	0.00202	0.00212	11,100	7,030	3,210	2,590 B
		11/7/2018	0.00445	0.00119	< 0.00100	< 0.00200	16,000	7,290 H	3,660	3,050
	D	11/7/2018	0.00563	0.00157	0.00107	< 0.00200	16,500	6,620 H	3,540	2,920
ACW-03		12/18/2019	0.00550	0.00160 J	0.00170 J	< 0.01000	12,000	6,100	740 B	2,600 B
		5/6/1997	0.35000	0.02200	0.11000	0.04300	18,500	11,000	6,900	---
		10/20/1997	0.16000	0.00820	0.06900	0.03200	23,000	13,000	7,800	---
		5/11/1998	0.13000	0.02100	0.04100	0.01900	24,000	15,000	8,500	---
		10/19/1998	---	---	---	---	20,800	12,400	7,700	---
		5/12/1999	---	---	---	---	19,600	10,100	6,600	---
		10/19/1999	---	---	---	---	18,900	9,120	6,900	---
		5/8/2000	---	---	---	---	19,400	11,900	7,600	---
		10/26/2000	---	---	---	---	17,500	11,900	7,400	---
		5/1/2001	---	---	---	---	19,200	9,900	9,500	---
		10/23/2001	---	---	---	---	18,800	10,600	7,100	---

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-03 (cont'd)		4/30/2002	---	---	---	---	18,500	10,600	6,000	---
		11/3/2002	0.03700	< 0.01000	0.02800	< 0.03000	13,000	13,000	4,700	4,200
		11/3/2003	0.00770	0.00400	0.00830	0.00290 J	11,080	8,310	4,070	2,830
		11/9/2004	0.01370	0.00540	0.00700	0.00660	12,290	8,580	4,980	2,800
		5/23/2005	0.00550	0.00110 J	0.00360	0.00290 J	16,570	11,567	5,600	4,331
		12/14/2005	0.10300	0.03420	0.02370	0.01930	21,100	12,600	6,500	4,720
		3/5/2007	0.06100	0.03400	0.01700	0.01560	18,800	11,600	6,970	3,840
		11/12/2007	0.03400	0.01700	0.00350	0.00640	18,620	11,200	6,210	3,970
		11/18/2008	0.04100	0.03200	0.01600	0.01680	16,980	10,500	6,150	3,400
		2/24/2010	0.04600	0.02500	0.02100	0.02630	1,000	10,600	5,940	4,140
		12/7/2010	0.10000	0.13000	0.02000	0.03230	2,750	13,000	7,950	4,250
		5/6/1997	0.02900	0.01200	< 0.00500	< 0.01000	48,500	25,000	21,000	---
ACW-04		10/20/1997	0.17000	0.15000	< 0.00500	0.11000	172,000	94,000	58,000	33,000
		5/12/1998	0.19000	0.17000	0.06000	0.10000	160,000	99,000	74,000	---
		10/19/1998	0.19000	0.14000	0.04900	0.09000	121,000	83,100	56,000	37,000
		5/12/1999	---	---	---	---	131,000	84,800	45,000	---
		10/19/1999	0.24000	0.16000	0.04400	0.08100	95,000	46,300	44,000	42,000
		5/8/2000	---	---	---	---	106,000	72,300	47,000	---
		10/26/2000	0.06300	0.01700	0.04100	0.19000	25,600	16,300	10,000	3,600
		5/2/2001	---	---	---	---	29,600	17,400	12,000	---
		10/22/2001	0.01200	0.00300	0.03200	0.10000	35,300	21,400	13,000	7,300
		4/30/2002	---	---	---	---	35,600	24,500	15,000	---
		11/3/2002	0.08400	0.01700	0.02700	0.04500	33,000	24,000	11,000	8,400
		11/4/2003	0.04480	0.00550	0.01500	0.02650	22,400	20,900	14,200	7,300
		11/9/2004	0.18900 R	0.04290	0.06980	0.10100	54,400	19,700	10,800	22,000
		12/12/2005	0.09660	0.05570	0.07610	0.13600	25,100	13,900	5,520	5,490
		3/5/2007	0.11000	0.00640	0.06100	0.09700	21,100	14,200	8,600	5,030
	D	3/5/2007	0.08800	0.00640	0.04700	0.07400		13,200	7,730	4,750

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-04 (cont'd)		11/12/2007	0.07100	0.01200	0.03400	0.06000	30,700	15,000	8,670	5,420
		11/17/2008	0.01900	0.00250	0.01200	0.02110	25,200	12,200	8,120	3,870
		2/24/2010	0.01800	0.00240	0.00670	0.01130	69,700	16,500	9,730	6,160
		12/7/2010	0.08600	0.00790	0.02400	0.04000	27,000	36,400	28,000	12,500
		11/10/2011	0.01410	0.00170	0.00770	0.01310	35,000	21,300	14,200	7,710
		11/8/2012	0.19100	0.01670	0.06150	0.09780	98,500	84,800	66,400	29,800
		1/10/2014	0.09910	0.00276	0.03480	0.05400	123,000	88,600	58,000	31,400
		1/7/2015	0.02900	0.00155	0.01660	0.01040	136,000	83,300	63,000	36,200
		12/3/2015	0.03240	0.00114	0.00550	0.00878	115,000	111,000	56,200	39,700
		12/1/2016	0.02570	0.00096 J	0.00495	0.00810	131,000	124,000	64,800	36,900 B
		11/28/2017	0.02680	0.00090 J	0.00395	0.00600	32,800	138,000	67,000	36,400 B
ACW-05		11/7/2018	0.02360	< 0.00100	0.00369	0.00538	173,000	92,800 H	69,600	28,900
		12/18/2019	0.03000	0.00069 J	0.00360	0.00520	130,000	77,000	72,000 B	27,000 B
		3/10/1993	---	---	---	---	10,400	6,110	2,544	---
		6/17/1993	---	---	---	---	4,480	323	1,228	---
		9/16/1993	---	---	---	---	4,140	3,064	650	---
		11/9/1993	---	---	---	---	4,390	3,202	720	---
		4/21/1994	---	---	---	---	4,131	3,300	800	---
		10/28/1994	---	---	---	---	4,500	3,112	550	---
		1/31/1995	---	---	---	---	4,050	2,848	499	---
		5/16/1995	< 0.00500	< 0.01000	< 0.00500	< 0.01500	3,900	2,800	530	540
		6/27/1995	< 0.00250	< 0.00250	< 0.00250	< 0.00500	3,800	2,800	460	530
		8/30/1995	< 0.00500	< 0.01000	< 0.00500	< 0.01500	3,900	2,700	510	550
		2/6/1996	< 0.00100	< 0.00100	< 0.00100	< 0.00200	3,800	2,200	510	580
		2/6/1996	< 0.00250	< 0.00250	< 0.00250	< 0.00750	3,090	2,745	506	580
		5/8/1996	< 0.00100	< 0.00100	< 0.00100	< 0.00300	3,650	2,460	519	506
		8/13/1996	< 0.00100	0.00120	< 0.00100	< 0.00200	3,400	2,500	500	520
		11/6/1996	0.00110	0.00140	0.00120	< 0.00200	3,300	2,300	500	520

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-05 (cont'd)		5/7/1997	0.00084	0.00120	0.00093	< 0.00100	3,020	2,000	430	---
		10/22/1997	0.00090	0.00160	0.00080	0.00190	3,160	2,000	470	480
		5/13/1998	0.00079	0.00150	* 0.00077	* 0.01200	3,100	2,800	570	---
		10/21/1998	---	---	---	---	2,930	1,910	440	---
		5/13/1999	---	---	---	---	3,190	1,960	450	---
		10/21/1999	< 0.00200	0.00270	< 0.00200	< 0.00400	3,250	1,890	1,000	540
		5/10/2000	---	---	---	---	3,180	1,960	750	---
		11/2/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	2,650	1,920	860	450
		5/6/2001	---	---	---	---	3,030	1,920	540	---
		10/24/2001	---	---	---	---	3,120	1,860	590	---
		4/30/2002	---	---	---	---	3,110	1,900	570	---
		11/6/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	3,000	2,200	560	490
		11/5/2003	0.00120 J	0.00110 J	0.00130 J	< 0.00600	3,000	1,040	613	421
		11/12/2004	0.00042 J	< 0.00100	0.00051 J	< 0.00200	3,450	2,540	708	411
		12/13/2005	< 0.00200	< 0.00200	0.00110 J	< 0.00600	3,820	2,640	771	394
	D	12/13/2005	< 0.00200	< 0.00200	0.00120 J	< 0.00600	---	2,510	675	388
		3/7/2007	< 0.00100	< 0.00100	< 0.00100	0.00120	4,170	3,440	978	376
		11/14/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	4,260	3,240	1,070	422
		11/18/2008	< 0.00100	< 0.00100	0.00100	< 0.00100	4,930	3,530	1,340	432
		2/18/2010	0.00000	---	---	---	5,430	3,120	1,070	381
		12/7/2010	0.00014 J	< 0.00100	< 0.00100	< 0.00100	5,632	6,200	1,400	542
		11/9/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	4,860	3,400	1,070	399
		11/7/2012	0.00100	< 0.00100	< 0.00100	< 0.00300	6,360	4,400	1,710	741
		1/8/2014	0.00180	< 0.00030	< 0.00020	0.00029 J	7,320	4,730	2,080	894
		12/30/2014	0.00076 J	< 0.00030	< 0.00020	< 0.00023	6,190	4,470	1,930	741
		12/1/2015	0.00287	0.00171	0.00021 J	< 0.00037	7,340	4,890	2,270	1,130
		12/2/2016	0.00133	< 0.00020	< 0.00021	< 0.00037	6,250	4,220	2,240	760 B
		11/28/2017	0.00470	0.00030 J	0.00028 J	< 0.00037 U	1,810	5,360	2,660	1,260 B

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-05 (cont'd)		11/7/2018	0.00508	< 0.00100	< 0.00100	< 0.00200	10,500	5,260 H	2,480	1,360
		12/18/2019	0.00590	0.00073 J	0.00032 J	0.00044 J	7,900	4,800	660 B	1,200 B
ACW-06		6/18/1993	---	---	---	---	8,220	5,027	2,108	---
		9/16/1993	---	---	---	---	11,130	6,656	2,737	---
		11/8/1993	---	---	---	---	8,540	5,646	2,154	---
		4/21/1994	---	---	---	---	11,080	6,930	3,600	---
		10/28/1994	---	---	---	---	11,988	6,910	2,100	---
		1/31/1995	---	---	---	---	11,530	6,755	2,873	---
		5/16/1995	< 0.00500	< 0.01000	< 0.00500	< 0.01500	10,000	6,400	2,800	2,200
		6/27/1995	0.01400	< 0.00250	< 0.00250	< 0.00500	10,000	8,600	3,500	3,000
		8/29/1995	0.00700	< 0.01000	< 0.00500	< 0.01500	12,000	7,100	3,000	2,500
		2/6/1996	0.00660	0.00320	< 0.00100	< 0.00200	11,000	6,600	2,600	2,700
		2/6/1996	< 0.00250	< 0.00250	< 0.00250	< 0.00750	10,320	5,630	3,180	2,400
		5/8/1996	0.00408	0.00158	< 0.00100	< 0.00300	10,620	6,460	2,880	2,380
		8/14/1996	0.00420	0.00260	< 0.00200	< 0.00200	11,000	7,100	2,900	2,900
		11/6/1996	0.00450	0.00150	< 0.00100	< 0.00200	12,000	7,700	3,400	2,800
		11/6/1996	0.00460	0.00150	< 0.00100	< 0.00200	12,000	7,700	3,600	2,400
		5/8/1997	0.00820	0.00280	0.00260	0.00270	8,450	5,500	2,300	---
		10/22/1997	0.01000	0.00380	0.00140	0.00120	10,200	6,500	2,900	2,200
	D	10/22/1997	0.00950	0.00310	0.00120	0.00120	10,700	6,200	2,900	2,200
		5/13/1998	0.01500	0.01200	< 0.00050	0.00380	12,000	10,000	3,300	---
		10/21/1998	0.01100	0.00600	0.00300	0.00300	11,600	6,530	3,000	2,640
		5/13/1999	---	---	---	---	11,200	6,620	2,900	---
		10/21/1999	< 0.02000	< 0.02000	< 0.02000	< 0.04000	11,500	6,170	2,800	2,900
		5/10/2000	---	---	---	---	10,300	6,290	3,600	---
		11/2/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	8,520	4,350	3,100	710
		5/6/2001	---	---	---	---	9,020	5,240	2,600	---
		10/24/2001	0.00560	< 0.00200	< 0.00200	0.01800	8,350	4,730	2,400	1,900

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-06 (cont'd)		4/29/2002	---	---	---	---	8,910	4,800	2,400	---
		11/5/2002	0.01800	< 0.01000	< 0.01000	< 0.03000	7,300	4,400	1,800	2,100
		11/5/2003	0.00890	0.00290	0.00220	0.00300 J	6,960	2,180	1,490	1,440
		11/12/2004	< 0.01000	< 0.01000	< 0.01000	< 0.02000	5,970	3,430	1,060	1,190
	D	11/12/2004	< 0.01000	< 0.01000	< 0.01000	< 0.02000	---	3,490	1,230	1,260
		12/13/2005	< 0.02000	< 0.02000	< 0.02000	< 0.06000	5,910	3,340	1,160	1,420
		3/7/2007	0.00700	< 0.00100	0.00150	0.00200	4,860	3,160	1,120	1,140
		11/13/2007	0.00760	< 0.00100	0.00210	0.00220	4,530	3,060	1,080	1,130
		11/18/2008	0.00450	< 0.00100	0.00140	0.00140	5,300	2,950	1,380	1,070
		2/18/2010	0.00410	< 0.00100	< 0.00100	< 0.00100	4,880	2,560	1,090	933
		12/6/2010	0.00370	0.00059 J	0.00033 J	< 0.00100	4,863	2,780	1,500	1,100
		11/9/2011	0.00220	0.00040 J	0.00032 J	< 0.00300	4,190	2,490	864	801
		11/7/2012	0.00076 J	< 0.00100	< 0.00100	< 0.00300	4,920	2,860	1,100	1,080
		1/9/2014	0.00059 J	< 0.00030	< 0.00020	< 0.00023	5,060	2,820	1,130	1,090
		12/30/2014	< 0.00030	< 0.00030	< 0.00020	< 0.00023	3,730	563	1,130	837
		12/1/2015	0.00019 J	< 0.00020	< 0.00021	< 0.00037	4,930	2,960 H	1,370	1,020
		12/2/2016	0.00019 J	< 0.00020	< 0.00021	< 0.00037	4,270	2,470	1,000	923 B
		11/28/2017	0.00032 J	< 0.00020	< 0.00021	< 0.00037	5,760	3,460	2,140	1,230
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	7,680	792 H	2,280	1,340
		12/18/2019	0.00025 J	< 0.00100	< 0.00100	< 0.00200	6,200	3,000 H	1,200 B	1,400 B
ACW-07		5/7/1997	0.00730	0.00250	0.00310	0.00170	13,200	8,100	3,600	---
		10/22/1997	0.00640	0.00340	0.00300	0.00300	13,800	7,500	4,400	2,500
		5/13/1998	0.00700	0.00320	0.00210	* 0.00170	14,000	11,000	4,300	---
		10/21/1998	0.00800	0.00300	* 0.00200	< 0.00200	14,000	8,290	4,400	3,100
		5/12/1999	---	---	---	---	14,300	7,420	4,900	---
		10/21/1999	0.00720	0.00530	0.00240	< 0.00400	14,700	8,010	4,800	3,300
		5/10/2000	---	---	---	---	14,900	8,900	7,100	---
		11/2/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	12,500	8,400	5,100	710

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-07 (cont'd)		5/6/2001	---	---	---	---	16,400	8,980	6,800	---
	D	5/6/2001	---	---	---	---	16,300	9,640	6,500	---
		10/24/2001	0.00740	< 0.00200	< 0.00200	0.00240	17,400	9,180	8,500	3,600
		4/30/2002	---	---	---	---	17,400	9,120	6,400	---
		11/5/2002	0.01200	0.00110	0.00240	< 0.00300	14,000	8,900	5,200	3,600
		11/5/2003	0.01930	0.00130 J	0.00470	0.00240 J	13,750	2,050	5,650	3,180
		11/12/2004	0.01400	0.00054 J	0.00320	0.00130	14,290	10,400	5,610	3,140
		5/24/2005	0.01780	< 0.00200	0.00370	0.00310 J	16,460	11,667	5,515	3,707
		12/13/2005	0.01640	< 0.01000	0.00510 J	< 0.03000	16,690	9,900	4,940	3,600
		5/9/2006	0.01810	< 0.00200	0.00470	< 0.00600	16,220	5,300	6,030	2,720
		8/23/2006	0.01460	< 0.00200	0.00430	< 0.00600	16,020	< 9,940 R H	5,890	3,170
		3/7/2007	0.01700	< 0.00100	0.00610	0.00150	15,580	9,980	5,810	3,450
		11/13/2007	0.02100	< 0.00100	0.00700	0.00130	15,080	9,620	5,660	3,410
		11/18/2008	0.01600	< 0.00100	0.00790	0.00100	15,390	9,380	5,820	3,180
		2/19/2010	0.00470	< 0.00100	0.00760	0.00110	1,570	7,720	5,090	2,350
		12/6/2010	0.01500	0.01100	0.00028 J	< 0.00100	1,632	9,610	6,470	3,230
		12/6/2010	0.01500	0.01100	0.00029 J	< 0.00100	---	10,300	7,190	3,210
		11/7/2012	0.03630	< 0.00100	0.01420	< 0.00300	13,900	8,580	4,990	2,070
		11/7/2012	0.03630	< 0.00100	0.01420	< 0.00300	13,900	8,580	4,990	2,070
		1/9/2014	0.03130	< 0.00030	0.00574	0.00030 J	14,800	8,490	4,470	3,220
		1/9/2015	< 0.00030	< 0.00030	0.00728	0.00053 J	10,000	4,940	3,420	2,380
		12/1/2015	0.00549	0.00081 J	0.01560	0.00129 J	10,700	6,430 H	3,490	2,390
		12/2/2016	< 0.00018	< 0.00020	0.01240	< 0.00037	10,500	6,140	3,290	2,160
		11/28/2017	< 0.00018	< 0.00020	0.00036 J	< 0.00037	8,940	5,940	2,810	1,840
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	13,100	5,820 H	7,760	2,250
		12/18/2019	< 0.00100	< 0.00100	0.00300	< 0.00200	10,000	5,200	760 B	2,300 B
ACW-08		5/6/1997	0.09900	0.01000	0.00410	0.00390	89,200	50,000	29,000	---
		11/21/1997	0.03600	0.00390	0.00200	0.01400	49,200	29,000	17,000	9,300

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-08 (cont'd)		5/12/1998	0.03700	0.00450	0.00290	0.00160	48,000	28,000	34,000	---
		10/20/1998	0.14000	0.01300	0.00600	0.00600	44,200	28,700	24,000	11,000
		5/11/1999	---	---	---	---	52,500	29,800	21,000	---
		10/19/1999	0.03200	0.00620	0.00370	< 0.00400	36,400	17,700	15,000	12,000
		5/9/2000	---	---	---	---	62,900	41,800	32,000	---
		10/26/2000	0.01500	< 0.00200	0.00210	0.01000	36,300	26,000	17,000	3,600
		5/1/2001	---	---	---	---	51,300	28,200	25,000	---
		10/23/2001	0.04100	0.00500	0.00310	< 0.00200	33,400	20,000	11,000	11,000
		4/29/2002	---	---	---	---	69,400	53,400	30,000	---
		11/4/2002	0.01000	0.00150	0.00120	< 0.00300	11,000	6,200	3,900	3,000
		11/3/2003	0.00700	< 0.00200	< 0.00200	< 0.00600	12,330	8,670	5,350	2,850
		11/9/2004	0.02530	0.00210	0.00160	0.00120 J	16,200	10,100	6,280	2,420
		5/23/2005	0.08000	0.01300	< 0.00500	< 0.00500	61,480	---	---	---
		5/23/2005	0.08190	0.01300	0.00400	0.00600	61,480	41,700	22,100	14,600
		12/14/2005	0.09840	0.01110	0.01940	0.00820	50,100	29,000	14,200	12,400
		3/6/2007	0.10000	0.11000	0.87000	0.10200	32,800	19,400	11,300	7,080
		11/12/2007	0.08600	0.03600	0.20000	0.06500	34,500	21,700	12,700	7,610
	D	11/12/2007	0.08500	0.03600	0.20000	0.06300	---	22,000	12,700	7,580
		11/18/2008	0.06700	0.02800	0.29000	0.06500	32,700	21,100	16,300	6,510
		2/24/2010	0.06600	0.02600	0.18000	0.05470	24,700	28,600	17,400	9,890
		12/7/2010	0.08200	0.03700	0.53000	0.11700	28,000	20,500	14,400	7,850
		11/10/2011	0.05520	0.01540	0.23900	0.04320	47,300	30,700	17,100	9,300
ACW-09		6/17/1993	---	---	---	---	5,900	4,435	2,288	---
		9/14/1993	---	---	---	---	3,100	2,119	915	---
		11/9/1993	---	---	---	---	3,670	2,300	1,184	---
		4/22/1994	---	---	---	---	3,900	2,508	1,150	---
		12/1/1994	---	---	---	---	5,450	3,510	1,650	---
		1/31/1995	---	---	---	---	7,110	4,240	2,083	---

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-09 (cont'd)		5/17/1995	< 0.00500	0.02200	< 0.00500	< 0.01500	11,000	6,800	5,600	910
		6/28/1995	< 0.00250	< 0.00250	< 0.00250	< 0.00500	9,100	6,200	3,500	1,000
		8/30/1995	< 0.00500	< 0.01000	< 0.00500	< 0.01500	7,150	4,500	2,500	880
		2/7/1996	0.00180	< 0.00100	< 0.00100	< 0.00200	7,500	5,400	2,400	810
		2/7/1996	< 0.00250	< 0.00250	< 0.00250	< 0.00750	7,450	4,620	2,300	810
		5/8/1996	< 0.00100	< 0.00100	< 0.00100	< 0.00300	7,530	4,210	2,210	687
		8/14/1996	0.00140	0.00160	< 0.00100	< 0.00200	4,400	3,600	1,200	730
		11/7/1996	0.00230	0.00220	< 0.00100	< 0.00200	4,200	3,100	1,200	510
		2/19/1997	0.00130	0.00400	0.01000	0.00420	4,110	2,500	1,260	---
		5/8/1997	0.00260	0.00260	0.00140	0.00170	2,800	2,100	830	---
		10/23/1997	< 0.00050	< 0.00050	< 0.00050	< 0.00100	3,380	1,600	880	320
		5/13/1998	< 0.00050	< 0.00050	< 0.00050	< 0.00100	5,100	4,500	1,600	---
		10/21/1998	0.00600	< 0.00200	< 0.00200	< 0.00200	13,200	8,980	4,100	1,400
		5/13/1999	---	---	---	---	11,100	6,400	3,400	---
		10/22/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00200	8,580	5,950	2,900	990
		5/12/2000	---	---	---	---	7,830	4,810	2,500	---
	D	5/12/2000	---	---	---	---	7,960	4,930	3,100	---
		11/3/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	7,630	5,860	3,000	670
	D	11/3/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	7,620	11,200	2,900	630
		5/6/2001	---	---	---	---	8,300	4,640	2,800	---
		10/25/2001	< 0.00200	< 0.00200	< 0.00200	0.00200	7,820	4,390	4,000	1,200
	D	10/25/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	7,700	4,400	3,700	1,300
		5/1/2002	---	---	---	---	8,160	3,800	2,900	---
	D	5/1/2002	---	---	---	---	7,070	3,760	2,500	---
		11/6/2002	0.00110	< 0.00100	< 0.00100	< 0.00300	7,800	3,700	1,800	1,400
		11/6/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	5,280	3,830	1,820	1,430
		11/10/2004	0.00082 J	< 0.00100	< 0.00100	< 0.00200	8,540	4,680	2,150	1,220
		12/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	5,970	3,100	1,350	941

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-09 (cont'd)		3/7/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	6,060	4,420	2,210	935
		11/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	5,900	2,870	1,290	796
		11/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	5,540	2,990	1,480	751
		2/24/2010	0.00100	< 0.00100	< 0.00100	< 0.00100	14,300	8,340	4,190	2,800
		12/9/2010	0.00017 J	0.00029 J	< 0.00100	< 0.00100	15,730	48,000	3,050	1,710
		11/9/2011	0.00032 J	< 0.00100	< 0.00100	< 0.00300	14,600	8,880	4,110	2,660
		11/7/2012	0.00750	< 0.00100	< 0.00100	< 0.00300	16,100	11,200	5,480	3,120
		1/13/2014	0.00386	< 0.00030	< 0.00020	< 0.00023	18,600	8,480	5,960	3,300
		1/5/2015	< 0.00030	< 0.00030	< 0.00020	< 0.00023	18,500	10,300	6,310	3,040
		12/1/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	21,400	15,900 H	9,130 F1	4,130
		12/2/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	20,200	13,000	7,270	3,820 B
		11/28/2017	< 0.00018	< 0.00020	< 0.00021	< 0.00037	26,000	20,000	10,600	3,090 B
ACW-10		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	34,000	22,700 H	9,940	3,460
		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	27,000	24,000	12,000 B	3,300 B
		6/18/1993	---	---	---	---	1,061	701	1,027	---
		9/14/1993	---	---	---	---	1,349	1,190	421	---
		11/9/1993	---	---	---	---	1,800	1,238	420	---
		4/22/1994	---	---	---	---	2,440	1,638	700	---
		10/28/1994	---	---	---	---	2,592	1,694	600	---
		2/1/1995	---	---	---	---	2,660	1,426	619	---
		5/17/1995	---	---	---	---	3,900	2,300	1,600	170
		6/28/1995	< 0.00250	< 0.00250	< 0.00250	< 0.00500	3,100	2,300	1,900	160
		8/30/1995	< 0.00500	< 0.01000	< 0.00500	< 0.01500	3,100	2,200	790	150
		2/7/1996	0.00390	< 0.00100	< 0.00100	< 0.00200	3,200	2,300	850	190
		2/7/1996	0.00430	< 0.00250	< 0.00250	< 0.00750	3,100	2,100	829	190
		5/8/1996	0.00122	< 0.00100	< 0.00100	< 0.00300	2,322	1,290	603	127
		8/14/1996	< 0.00100	< 0.00100	< 0.00100	< 0.00200	2,400	1,900	560	140
		11/7/1996	0.00120	0.00150	< 0.00100	< 0.00200	250	1,800	610	150

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-10 (cont'd)		5/8/1997	0.00130	0.00100	< 0.00050	< 0.00100	1,880	1,500	480	---
		10/23/1997	0.00114	0.00117	< 0.00050	0.00058	2,870	1,500	670	140
		5/14/1998	---	---	---	---	2,400	1,200	540	---
		10/22/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	2,900	1,960	800	180
		5/13/1999	---	---	---	---	2,810	1,660	730	---
		10/22/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	2,470	1,720	660	170
		5/11/2000	---	---	---	---	3,620	2,430	1,400	---
		11/6/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	3,100	2,840	980	330
		5/6/2001	---	---	---	---	3,660	2,360	1,000	---
		10/25/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	3,350	2,270	930	180
		5/1/2002	---	---	---	---	3,440	1,970	1,000	---
		11/8/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	2,600	2,000	740	270
		11/6/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	2,580	2,160	795	182
		11/11/2004	0.00051 J	< 0.00100	< 0.00100	< 0.00200	2,670	1,990	720	176
		12/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	3,000	1,640	638	162
		3/8/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	2,860	2,240	793	202
		11/14/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	2,810	2,070	802	187
		11/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	2,890	2,090	767	175
		2/19/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	5,780	2,360	1,020	180
	D	2/19/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	2,380	1,030	176
		12/8/2010	0.00089 J	< 0.00100	< 0.00100	< 0.00100	6,517	5,400	1,200	264
		11/9/2011	0.00039 J	< 0.00100	< 0.00100	< 0.00300	4,700	3,250	1,270	215
		11/6/2012	0.00180	< 0.00100	< 0.00100	< 0.00300	4,760	3,370	1,490	331
		1/10/2014	0.00298	< 0.00030	< 0.00020	< 0.00023	6,800	4,290	2,020	490
		1/5/2015	< 0.00030	< 0.00030	< 0.00020	< 0.00023	4,020	2,770	1,610	268
		12/1/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	5,050	4,200 H	1,730	294
		12/1/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	5,350	4,260	1,760	293
		11/28/2017	0.00025 J	< 0.00020	< 0.00021	< 0.00020	4,640	2,320	2,350	303 B

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-10 (cont'd)		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	8,690	4,640 H	3,300	374
		12/18/2019	0.00290	< 0.00100	< 0.00100	< 0.00200	7,600	6,400 B F1	1,800	410 B
ACW-11		6/19/1993	---	---	---	---	25,000	18,670	9,737	---
		9/15/1993	---	---	---	---	10,570	6,820	3,437	---
		11/9/1993	---	---	---	---	10,160	6,592	3,620	---
		4/21/1994	---	---	---	---	16,290	9,520	6,400	---
		10/27/1994	---	---	---	---	20,060	13,280	6,200	---
		10/27/1994	---	---	---	---	20,550	12,900	6,600	---
		2/1/1995	---	---	---	---	32,200	19,880	11,582	---
		5/17/1995	< 0.00500	< 0.01000	< 0.00500	< 0.01500	12,000	7,200	4,400	1,200
		6/27/1995	0.00510	< 0.00250	< 0.00250	< 0.00500	11,000	7,000	6,500	980
		8/29/1995	0.00800	< 0.01000	< 0.00500	< 0.01500	10,000	6,000	3,400	880
		2/7/1996	0.00690	< 0.00100	< 0.00100	< 0.00200	11,000	7,400	3,400	1,500
		2/7/1996	0.00760	< 0.00250	< 0.00250	< 0.00750	11,030	6,740	3,770	1,400
		5/8/1996	0.00676	< 0.00100	< 0.00100	< 0.00300	9,840	5,080	3,120	1,160
		8/13/1996	0.00790	0.00220	< 0.00100	< 0.00200	12,000	10,000	4,200	1,700
		11/5/1996	0.03200	0.00170	< 0.00100	0.00120	29	25,000	13,000	5,100
		5/6/1997	0.02100	0.00530	0.00310	0.00350	10,200	6,700	3,600	---
		11/21/1997	0.02800	0.00310	< 0.00050	0.00280	27,900	16,000	9,800	2,700
		5/12/1998	0.07000	0.00820	0.00130	0.00430	36,000	22,000	13,000	---
		10/20/1998	0.05100	< 0.00200	< 0.00200	< 0.00200	42,500	29,600	17,000	5,100
		5/12/1999	---	---	---	---	19,800	11,100	7,200	---
		10/20/1999	0.01400	0.00450	< 0.00200	< 0.00400	19,300	13,600	7,800	2,300
		5/9/2000	---	---	---	---	31,500	21,000	18,000	---
		11/1/2000	0.01600	< 0.00200	< 0.00200	< 0.00400	25,700	21,900	10,000	4,440
		5/1/2001	---	---	---	---	32,800	20,000	15,000	---
		10/23/2001	0.05900	< 0.00200	< 0.00200	< 0.00200	47,800	32,900	17,000	9,500
		4/29/2002	---	---	---	---	34,200	25,500	15,000	---

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-11 (cont'd)		11/6/2002	0.01300	< 0.00100	< 0.00100	< 0.00300	11,000	9,700	4,600	3,000
		11/4/2003	0.00270	< 0.00200	< 0.00200	< 0.00600	7,950	3,470	4,520	1,740
		11/10/2004	0.01930	< 0.00100	0.00053 J	< 0.00200	21,200	18,300	7,950	2,270
		5/23/2005	0.02220	< 0.00200	< 0.00200	< 0.00600	22,200	17,700	8,339	4,022
		12/13/2005	0.01870	< 0.00200	< 0.00200	< 0.00600	27,000	10,400	4,580	2,240
		3/6/2007	0.01100	< 0.00100	< 0.00100	< 0.00100	18,500	14,500	8,880	1,930
		11/13/2007	0.00320	< 0.00100	< 0.00100	< 0.00100	13,260	11,300	6,540	1,860
		11/18/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	12,540	10,100	5,570	1,950
		2/25/2010	0.00150	< 0.00100	< 0.00100	< 0.00100	50,300	11,700	6,450	2,120
		12/9/2010	< 0.00100	0.00290	< 0.00100	< 0.00100	22,500	48,300	21,000	8,430
		11/10/2011	0.00089 J	< 0.00100	< 0.00100	< 0.00300	13,000	10,100	4,070	1,290
		11/7/2012	0.00550	< 0.00100	< 0.00100	< 0.00300	45,600	39,600	21,200	9,160
		1/13/2014	0.00446	< 0.00030	< 0.00020	< 0.00023	52,200	29,700	22,500	9,880
		1/5/2015	0.01490	< 0.00030	< 0.00020	< 0.00023	36,900	23,800	17,700	6,160
		12/4/2015	0.02760	< 0.00020	< 0.00021	< 0.00037	56,200	70,900 H	23,000	7,240 B
		12/1/2016	0.00228	< 0.00020	< 0.00021	< 0.00037	45,800	40,400	20,000	5,810 B
		11/28/2017	0.01260	< 0.00020	< 0.00021	< 0.00037	65,600	39,900 H	30,500	10,700 B
		11/7/2018	0.02030	< 0.00100	< 0.00100	< 0.00200	58,400	40,000 H	19,400	5,930
		12/18/2019	0.02200	< 0.00100	< 0.00100	< 0.00200	49,000	37,000 H	23,000 B	6,700 B
ACW-12		2/19/1997	< 0.00050	< 0.00050	0.00150	< 0.00100	1,610	950	380	---
	D	2/19/1997	0.00290	< 0.00050	< 0.00050	< 0.00100	1,630	960	390	---
		5/8/1997	0.00300	0.00089	< 0.00050	< 0.00100	1,240	900	290	---
		8/20/1997	0.00120	< 0.00050	< 0.00050	< 0.00100	1,120	740	260	100
	D	8/20/1997	0.00140	< 0.00050	< 0.00050	< 0.00100	1,150	740	280	100
		10/23/1997	0.00140	0.00058	< 0.00050	< 0.00100	1,810	850	380	120
		2/24/1998	0.00730	< 0.00050	< 0.00050	< 0.00100	2,050	1,200	470	120
	D	2/24/1998	0.00670	< 0.00050	< 0.00050	< 0.00100	2,090	1,220	490	120
		6/1/1998	< 0.00050	0.00120	< 0.00050	< 0.00100	2,000	1,500	---	130

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-12 (cont'd)	D	6/1/1998	0.00440	0.00250	0.00610	0.00250	2,300	1,700	540	130
		8/11/1998	0.00200	< 0.00200	< 0.00200	< 0.00600	1,790	1,240	440	130
	D	8/11/1998	0.00200	< 0.00200	< 0.00200	< 0.00600	2,020	1,300	520	130
		10/22/1998	0.00600	< 0.00200	< 0.00200	< 0.00600	2,280	1,520	610	140
	D	10/22/1998	0.00600	< 0.00200	< 0.00200	< 0.00600	2,310	1,690	600	130
		2/23/1999	0.00600	< 0.00200	< 0.00200	< 0.00600	2,020	1,240	500	160
	D	2/23/1999	0.00500	< 0.00200	< 0.00200	< 0.00600	2,050	1,280	480	160
		5/14/1999	0.00400	< 0.00200	< 0.00200	< 0.00600	2,390	1,440	500	150
	D	5/14/1999	0.00400	< 0.00200	< 0.00200	< 0.00600	2,350	1,410	590	140
		8/11/1999	0.00530	< 0.00200	< 0.00200	< 0.00600	2,650	1,750	750	160
	D	8/11/1999	0.00240	< 0.00200	< 0.00200	< 0.00600	2,630	1,880	810	160
		10/22/1999	0.00470	< 0.00200	< 0.00200	< 0.00600	2,180	1,620	650	140
	D	10/22/1999	0.00440	< 0.00200	< 0.00200	< 0.00600	2,170	1,390	560	140
		2/22/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00200	1,950	1,260	680	130
		5/11/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	1,590	989	470	120
		8/7/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	1,800	1,270	460	110
		11/3/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	2,520	1,780	890	280
		2/20/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00400	2,230	1,210	670	170
		5/3/2001	0.00240	< 0.00200	< 0.00200	< 0.00200	2,100	1,060	570	150
	D	5/3/2001	0.00210	< 0.00200	< 0.00200	< 0.00200	2,120	1,150	510	150
		8/1/2001	< 0.00200	< 0.00200	< 0.00200 Jc	< 0.00200	2,080	1,290	490	140
		10/25/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,890	1,220	1,400	120
		2/20/2002	---	---	---	---	2,200	1,370	720	140
	R	2/20/2002	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00200 H	---	---	---	---
		5/1/2002	0.00260	< 0.00200	< 0.00200	< 0.00200	2,030	1,180	490	130
	D	5/1/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00200	1,900	1,100	440	110
		11/7/2002	0.00370	< 0.00100	< 0.00100	< 0.00300	1,800	1,300	450	150
		11/6/2003	0.00100 J	< 0.00200	< 0.00200	< 0.00600	1,605	1,220	410	126

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-12 (cont'd)		11/11/2004	0.00180	< 0.00100	< 0.00100	< 0.00200	2,270	1,300	449	137
		12/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	2,090	1,130	393	131
		3/8/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,980	1,650	529	134
		11/14/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,920	1,460	451	134
		11/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	2,300	1,570	460	126
		2/24/2010	0.00260	< 0.00100	< 0.00100	< 0.00100	4,760	3,680	1,130	244
		12/8/2010	0.00160	< 0.00100	< 0.00100	< 0.00100	4,953	5,420	1,270	263
		11/9/2011	0.00250	< 0.00100	< 0.00100	< 0.00300	4,500	3,300	1,210	236
		11/6/2012	0.00440	< 0.00100	< 0.00100	< 0.00300	4,650	3,340	1,380	198
		1/10/2014	0.00363	< 0.00030	< 0.00020	< 0.00023	5,170	3,430	1,290	266
		1/5/2015	0.00062	< 0.00030	< 0.00020	< 0.00023	4,610	3,350	1,610	277
		12/1/2015	0.00023 J	0.00041	< 0.00021	< 0.00037	5,000	3,190 H	1,610	274 B
		12/1/2016	< 0.00018	< 0.00021	< 0.00021	< 0.00037	5,070	4,000	1,560	258 B
		11/28/2017	< 0.00018	< 0.00020	< 0.00021	< 0.00037	5,820	2,430	1,840	348 B
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	8,100	5,260 H	2,690	417
ACW-13		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	6,300	4,700	1,100 B	400 B
		2/20/1997	< 0.00050	< 0.00050	0.00150	< 0.00100	681	440	53	---
		5/8/1997	0.00061	0.00058	< 0.00050	< 0.00100	643	460	57	---
	D	5/8/1997	0.00065	0.00062	< 0.00050	< 0.00100	630	460	52	---
		8/20/1997	< 0.00050	< 0.00050	< 0.00050	< 0.00100	654	440	55	79
		10/23/1997	0.00059	0.00076	< 0.00050	< 0.00100	728	400	50	84
		2/24/1998	< 0.00050	< 0.00050	< 0.00050	< 0.00100	727	450	59	87
		6/1/1998	< 0.00050	< 0.00050	< 0.00050	< 0.00100	700	450	---	85
		8/11/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	679	467	48	85
		10/22/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	686	439	47	87
		2/23/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	792	493	74	110
		5/14/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	693	403	45	86
		8/11/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	676	359	41	86

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-13 (cont'd)		10/22/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	674	436	48	89
		2/23/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00200	697	479	53	82
		5/11/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	697	459	47	88
		8/8/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	676	363	41	82
	D	8/8/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	662	381	44	84
		11/6/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	1,330	947	360	210
		2/20/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00400	893	518	110	130
		5/7/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00200	685	444	57	88
		8/1/2001	< 0.00200	< 0.00200	< 0.00200 Jc	< 0.00200	694	402	42	86
	D	8/1/2001	< 0.00200	< 0.00200	< 0.00200 Jc	< 0.00200	690	439	45	80
		10/25/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	690	422	42	78
		2/20/2002	< 0.00200	0.00210	< 0.00200	< 0.00200	680	389	44	78
	R	2/20/2002	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00200 H	---	---	---	---
		5/1/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00200	760	407	54	78
		9/25/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00400	807	643	50	80
	D	9/25/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00400	789	603	130	83
		11/7/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	740	450	45	96
		3/28/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	772	502	47	57
		5/19/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	747	502	47	70
		8/19/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	661	460	42	79
		11/6/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	759	490	44	77
		2/26/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	724	476	43	81
		5/12/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	759	492	42	77
		8/24/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	660	496	45	78
		11/11/2004	0.00050 J	< 0.00100	< 0.00100	< 0.00200	987	558	50	79
		2/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,036	520	61	78
		5/24/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	811	447	32	70
		8/22/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	884	513	71	85

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-13 (cont'd)		12/15/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	917	551	172	83
	D	12/15/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	548	88	79
		2/13/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	906	551	93	81
		5/8/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	922	508	98	63
	D	5/8/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	505	94	70
		8/22/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	967	568	100	80
		3/8/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	971	586	119	92
		5/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,025	651	127	84
		8/22/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,085	690	121	81
		11/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,012	855	130	87
		2/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,070	691	123	84
		6/9/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,100	639	122	89
	D	6/9/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	631	122	87
		8/13/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,110	688	131	75
		11/20/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,155	1,290	135	89
		3/3/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,109	666	98	90
	D	3/3/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	631	98	89
		5/19/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,088	668	134	88
		8/27/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,115	706	126	87
		2/19/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,000	662	169	89
		6/28/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	949	1,050	148	98
	D	6/28/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	1,060	145	92
		9/20/2010	< 0.00100	0.00041 J	< 0.00100	< 0.00100	1,062	783	158	95
	D	9/21/2010	< 0.00200	0.00027 J	< 0.00100	< 0.00100	---	732	166	94
		12/7/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,019	880	161	99
		2/16/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,020	888	194	100
		5/10/2011	< 0.00100	< 0.00200	< 0.00200	< 0.00600	1,019	682	192	99
	D	5/10/2011	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	714	198	101

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-13 (cont'd)		8/17/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,020	707	200	99
		11/9/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,140	709	200	90
		2/13/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,170	663	189	96
		5/8/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,150	663	186	98
		8/13/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,250	714	234	102
		11/6/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,230	760	228	111
		3/1/2013	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,100	713	191	116
		6/28/2013	< 0.00014	< 0.00030	< 0.00020	< 0.00030	796	767	216	108
		10/2/2013	< 0.00014	< 0.00030	< 0.00014	< 0.00030	739	789	202	105
		1/9/2014	< 0.00014	< 0.00030	< 0.00014	< 0.00030	1,230	715	215	104
		3/31/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	1,530	904	302	103
		5/29/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	1,200	805	237	104
		9/10/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	1,270	904	271	111
		1/5/2015	< 0.00030	< 0.00030	< 0.00020	< 0.00023	1,340	449	272	105
		3/4/2015	< 0.00033	< 0.00033	< 0.00020	< 0.00023	1,250	804	276	102
		6/2/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,340	1,020	313	110
		9/30/2015	< 0.00018	< 0.00021	< 0.00020	< 0.00037	1,310	930	268	102
		12/2/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,320	966 H	301	109 B
		3/16/2016	< 0.00056	< 0.00055	< 0.00013	< 0.00020	1,310	1,140	249 F1	105
		5/18/2016	< 0.00056	< 0.00055	< 0.00013	< 0.00020	1,340	1,260	284	103
		8/17/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,300	1,090	293	107
		12/1/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,330	944	299	112
		3/14/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,350	1,010	246 B	116
		6/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,350	1,190	327	116
		9/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,430	1,100	329	121
		11/28/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,550	1,160	363	137 B
		2/21/2018	< 0.00018	< 0.00021	< 0.00198	< 0.00037	1,650	1,650	389	121 B
		5/9/2018	< 0.00018	< 0.00021	< 0.00020	< 0.00037	1,630	1,300	355	134 B

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-13 (cont'd)		8/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,760	1,460	362	135
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	2,460	1,410 H	519	135
		3/5/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,790	1,900	575	154
		6/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	2,300	1,500	590	150
		9/10/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	2,400	2,000	660	150
		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	2,600	2,000	700 B	160 B
ACW-14		2/20/1997	< 0.00050	< 0.00050	< 0.00050	< 0.00100	830	570	86	---
		5/7/1997	0.00088	0.00110	0.00052	< 0.00100	746	480	72	---
		8/20/1997	< 0.00050	< 0.00050	< 0.00050	< 0.00100	691	460	80	81
		10/22/1997	< 0.00050	0.00120	< 0.00050	0.00150	747	440	71	81
		2/24/1998	< 0.00050	< 0.00050	< 0.00050	0.00058 J	755	470	40	87
		5/13/1998	0.00075	< 0.00050	< 0.00050	< 0.00100	880	530	58	97
		8/11/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	730	496	160	90
		10/21/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	771	466	71	97
		2/23/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	859	524	88	110
		5/13/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	764	500	62	95
		8/9/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	791	471	58	91
		10/21/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	753	469	68	98
		2/22/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00200	738	499	53	97
		5/10/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	761	485	61	110
		8/7/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	750	439	65	95
		11/1/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	1,630	1,090	420	300
		2/21/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00400	883	517	100	110
		5/3/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00200	809	499	89	100
		8/2/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00200	771	476	70	89
		10/24/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	761	449	71	82
		2/19/2002	< 0.00200	0.00310	< 0.00200	0.00710	759	427	65	82
	R	2/19/2002	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00200 H	---	---	---	---

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-14 (cont'd)		4/30/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00400	844	505	74	90
		9/25/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00400	749	482	58	81
		11/4/2002	0.00200	< 0.00100	< 0.00100	< 0.00300	840	670	76	97
	D	11/4/2002	0.00180	< 0.00100	< 0.00100	< 0.00300	830	550	73	99
		3/26/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	768	508	55	62
		5/20/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	822	570	67	78
	D	5/20/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	822	534	71	76
		8/20/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	746	494	59	88
	D	8/20/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	494	62	89
		11/5/2003	0.00180 J	< 0.00200	< 0.00200	< 0.00600	825	550	67	88
		2/26/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	752	512	52	90
	D	2/26/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	500	51	89
		5/12/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	786	490	57	87
		8/24/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	747	520	54	86
		11/12/2004	< 0.00100	< 0.00100	< 0.00100	< 0.00200	926	572	55	89
		2/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,081	520	54	88
	D	2/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	528	60	83
		5/24/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	820	508	64	82
		8/22/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	846	526	58	87
		12/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	869	539	53	92
		2/13/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	854	512	59	81
	D	2/13/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	512	60	81
		5/9/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	826	474	64	75
		8/22/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	846	988 R H	50	80
	D	8/22/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	492	52	83
		3/7/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	807	531	56	86
	D	3/7/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	513	54	89
		5/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	868	558	62	87

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-14 (cont'd)		8/22/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	886	549	62	80
	D	8/22/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	598	64	77
		11/14/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	865	547	60	88
	D	11/14/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	526	61	86
		2/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	866	543	57	77
	D	2/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	574	56	84
		6/9/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	890	590	63	86
		8/13/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	900	611	69	76
	D	8/13/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	505	69	70
		11/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	910	546	71	83
	D	11/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	537	69	81
		3/3/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	922	519	52	87
		5/19/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,100	561	64	98
		8/27/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	988	603	62	86
		2/18/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,030	524	82	92
		6/29/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	794	< 10	63	93
		9/21/2010	< 0.00100	0.00026 J	< 0.00100	< 0.00100	1,000	705	98	95
		12/7/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,070	600	83	99
		2/16/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00100	987	853	162	105
		5/11/2011	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,033	605	145	105
		8/17/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	925	663	154	101
		11/9/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	840	544	74	90
		2/14/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,000	589	119	98
	D	2/14/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	994	601	120	97
		5/8/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,140	646	168	112
	D	5/8/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,140	665	166	108
		8/13/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,100	674	161	110
	D	8/13/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,060	615	143	111

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-14 (cont'd)		11/7/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,190	723	185	117
	D	11/7/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,220	748	198	115
		3/1/2013	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,070	623	159	102
		6/28/2013	< 0.00014	< 0.00030	< 0.00020	< 0.00300	426	416	31	72
		10/5/2013	< 0.00014	< 0.00030	< 0.00020	< 0.00300	804	815	221	117
		1/9/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00020	1,110	660	154	116
		3/31/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00020	908	539	89	96
		5/29/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00020	984	615	139	103
		9/10/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	803	595	82	110
		12/30/2014	< 0.00030	< 0.00030	< 0.00020	< 0.00023	817	480	62	70
		3/4/2015	< 0.00033	< 0.00033	< 0.00020	< 0.00023	772	494	7	103
		6/2/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	840	490	76	101
		9/30/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	817	543	83	97
		12/2/2015	< 0.00018 H	< 0.00020 H	< 0.00021 H	< 0.00037 H	836	838 H	94	101 B
		3/16/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00129	834	569	86	100
		5/18/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00129	861	742	262	98
		8/17/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	842	558	121	102
		12/2/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	871	577	98	107
		3/14/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	875	583	96 B	108
		6/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	867	748	128	101
		9/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	877	598	121	107
		11/28/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	905	613	120	104 B
		2/21/2018	< 0.00018	< 0.00021	< 0.00020	< 0.00037	927	561	129	96 B
	D	2/21/2018	< 0.00018	< 0.00021	< 0.00020	< 0.00037	920	570	132	98 B
		5/9/2018	< 0.00018	< 0.00021	< 0.00020	< 0.00037	905	614	94	104 B
	D	5/9/2018	< 0.00018	< 0.00021	< 0.00020	< 0.00037	921	648	118	102 B
		8/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	933	592	130	99
	D	8/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	941	613	118	100

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-14 (cont'd)		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,220	624 H	146	111
		3/5/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	889	692	134	107
	D	3/5/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	923	570	134	108
		6/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	990	510	130	100
	D	6/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	990	560	130	100
		9/10/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,000	480 J	130	110
	D	9/10/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,000	660 J	140 B	100
ACW-15		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,000	570	170 B	110 B
		10/23/1999	0.00320	0.00530	< 0.00200	< 0.00400	1,010	587	180	130
		2/23/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00200	665	402	42	81
	D	2/23/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00200	660	394	42	82
		5/11/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	654	431	49	76
		8/8/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	605	340	35	77
		11/2/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	1,380	876	360	250
		2/20/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00400	725	423	64	100
	D	2/20/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00400	727	413	65	96
		5/7/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	629	416	52	80
	D	5/7/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	628	396	46	81
		8/2/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00200	627	397	82	76
		10/25/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	627	393	56	72
		2/19/2002	< 0.00200	0.00340	0.00200	0.01100	629	369	27	74
	R	2/19/2002	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00200 H	---	---	---	---
	D	2/19/2002	< 0.00200	< 0.00200	< 0.00200	0.00700	628	355	31	49
	R	2/19/2002	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00200 H	---	---	---	---
		5/2/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00200	670	404	30	77
		9/25/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00400	777	552	130	72
		11/8/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	640	380	30	85
	D	11/8/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	620	410	29	81

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-15 (cont'd)		3/28/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	700	472	31	55
		5/19/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	651	442	30	66
		8/19/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	650	438	29	77
		11/7/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	644	436	26	71
		2/26/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	600	410	27	75
		5/12/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	655	436	27	71
		8/24/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	587	382	26	74
		11/11/2004	< 0.00100	< 0.00100	< 0.00100	< 0.00200	760	468	29	74
		2/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	937	444	30	71
		5/24/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	655	513	61	79
	D	5/24/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	458	34	72
		8/22/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	743	456	31	75
		12/14/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	754	452	32	74
		2/13/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	730	444	39	71
		5/8/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	721	377	33	68
		8/22/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	708	414	41	72
		3/8/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	716	457	44	77
		5/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	794	514	43	77
		8/22/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	799	47	1	< 1
		11/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	752	520	50	78
		2/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	844	542	62	70
		6/9/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	840	538	56	76
		8/13/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	848	588	62	65
		11/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	828	481	47	72
		3/3/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	857	491	50	82
		5/19/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	825	493	56	82
	D	5/19/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	482	65	80
		8/27/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	840	515	60	78

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-15 (cont'd)	D	8/27/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	502	46	79
		2/17/2010	---	---	---	---	839	337	31	47
		6/28/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	837	671	49	85
		9/20/2010	< 0.00100	0.00033 J	< 0.00100	< 0.00100	878	476	30	81
		12/9/2010	< 0.00100	0.00060 J	< 0.00100	< 0.00100	9,300	5,500	72	79
		2/16/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00100	857	710	135	87
	D	2/16/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00100	849	679	134	87
		5/10/2011	< 0.00200	< 0.00200	< 0.00200	< 0.00600	897	571	124	86
		8/17/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	589	440	37	81
	D	8/17/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	595	428	40	81
		11/9/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	711	462	49	76
		2/13/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	939	539	124	87
		5/8/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	718	386	47	88
		8/14/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	999	531	146	96
		11/5/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,010	615	154	103
		3/1/2013	< 0.00100	< 0.00100	< 0.00100	< 0.00300	992	649	160	90
		6/28/2013	< 0.00014	< 0.00030	< 0.00020	< 0.00023	675	613	160	94
		10/3/2013	< 0.00014	< 0.00030	< 0.00020	< 0.00023	691	720	189	93
		1/10/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	1,080	613	170	100
		3/31/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	792	487	67	82
		5/29/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	573	477	89	87
		9/10/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	755	469	75	88
		1/9/2015	< 0.00014	< 0.00030	< 0.00020	< 0.00023	782	449	56	86
		3/4/2015	< 0.00033	< 0.00033	< 0.00020	< 0.00023	724	454	67	101
		6/2/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	785	500	72	91
		9/30/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	763	475	74	85
		12/2/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	599	407 H	68	67
		3/16/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00198	774	565	86	89

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-15 (cont'd)		5/18/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00198	865	770	116	86
		8/17/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	815	588	123	90
		12/1/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	876	582	122	92
		3/14/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	864	575	84 B	95
		6/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	880	771	126	90
		9/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	898	635	133	92
		11/28/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	940	640	168	94 B
		2/21/2018	< 0.00018	< 0.00021	< 0.00020	< 0.00037	981	598	157	91 B
		5/9/2018	< 0.00018	< 0.00021	< 0.00020	< 0.00037	981	673	175	91 B
		8/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,020	605	154	92
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,360	668 H	171	100
		3/5/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,040	652	190	99.5
		6/18/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,100	610	180	96
ACW-16		9/10/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,100	780	190	99
		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,100	570	170 B	100 B
		1/6/2015	0.00220	< 0.00030	< 0.00020	< 0.00023	24,400	15,100	10,700	4,010
		12/3/2015	0.00185	0.00033 J	< 0.00021	0.00055 J	26,700	20,600 H	13,400	4,460
		12/1/2016	0.00224	0.00030 J	< 0.00021	< 0.00037	27,400	21,200	11,200	4,480 B
		11/28/2017	0.00243	0.00023 J	< 0.00021	< 0.00037	27,700	21,700	11,700	4,260 B
ACW-17		11/7/2018	0.00161	< 0.00100	< 0.00100	< 0.00200	35,700	18,300 H	10,700	4,410
		12/18/2019	0.00230	0.00032 J	< 0.00100	< 0.00200	28,000	21,000	12,000 B	4,600 B
		1/6/2015	< 0.00033	< 0.00030	< 0.00020	< 0.00023	609	7,960	5,500	1,680
		12/3/2015	0.00026 J	< 0.00020	< 0.00021	< 0.00037	14,000	10,800 H	5,950	1,760
		12/1/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	14,400	11,100	5,520	1,670
		11/28/2017	< 0.00018	< 0.00020	< 0.00021	< 0.00037	15,100	11,600	6,420	1,700 B
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	20,300	10,800 H	5,580	1,780
		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	16,000	12,000	5,900 B	1,900 B

Table 3
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 El Paso Natural Gas Company, LLC
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Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-18		1/6/2015	< 0.00030	< 0.00030	< 0.00020	< 0.00023	104,000	64,400	49,700	26,200
		12/3/2015	0.00026 J	< 0.00020	< 0.00021	< 0.00037	102,000	105,000 H	42,900	27,300 B
		12/28/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	105,000	60,300	47,000	28,100 B
		11/28/2017	0.00062 J	< 0.00020	< 0.00021	< 0.00037	106,000	91,400	60,200	27,200 B
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	136,000	79,200 H	51,700	25,400
		12/18/2019	0.00058 J	< 0.00100	0.00026 J	< 0.00200	100,000	71,000	58,000 B^	20,000 B
ACW-19		1/6/2015	0.07550	0.00064	0.00095	0.00345	3,470	2,180	972	539
		12/3/2015	0.08410	0.00156	0.00924	0.01480	3,970	2,560	1,080	641 B
		12/1/2016	0.06390	0.00052	0.00201	0.00217	4,110	2,520	1,050	587 B
		11/28/2017	0.04760	0.00057 J	0.00137	0.00224	4,600	2,960	1,320	645 B
		11/7/2018	0.04730	< 0.00100	0.00225	0.00220	6,300	2,570 H	1,240	772
		12/18/2019	0.05200	0.00320	0.00910	0.00620	5,200	2,500	1,300 B	820 B
ACW-20		1/12/2015	0.06820	0.00988	0.00986	0.00755	137,000	86,600	73,200	---
		12/3/2015	0.07080	0.00876	0.01290	0.00995	140,000	116,000 H	70,400	43,500
		12/1/2016	0.09420	0.01050	0.01740	0.01240	130,000	117,000	58,200	40,200
		11/28/2017	0.05530	0.00874	0.00503	0.00410	150,000	136,000	80,600	46,700 B
		11/7/2018	0.05620	0.00871	0.00640	0.00399 J	189,000	182,000 H	75,600	192 J
	D	11/7/2018	0.05530	0.01130	0.00824	0.00616 J	190,000	164,000 H	73,000	46,400 J
		12/18/2019	0.06900	0.01100	0.00870	0.00640	150,000	82,000	81,000 B^	42,000 B
ACW-21		1/12/2015	0.07290	< 0.00150	0.01660	0.01040	2,010	1,010	410	144
		12/3/2015	0.77500	< 0.00396	0.04450	0.15400	1,990	1,280 H	414	146
		12/1/2016	0.06400	< 0.00396	0.06170	0.04380	2,050	1,270	380	150
		11/28/2017	0.05620	0.00037 J	0.00921	0.00220	1,890	1,280	572	144 B
		11/7/2018	0.475	< 0.0200	0.02690	< 0.0400	2,430	1,040 H	298	52
		12/18/2019	0.022	0.00099 J	0.01800	0.0055 J	2,000	1,100	320 B	120 B

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Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-22		12/2/2015	< 0.00018	0.00024 J	< 0.00021	< 0.00037	2,080	1,270 H	397	238 B
		12/2/2016	< 0.00018	0.00024 J	< 0.00021	< 0.00037	2,220	1,230	3,150	284 B
		11/28/2017	0.00027 J	0.00024 J	< 0.00021	< 0.00037	2,190	1,350	418	260 B
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	2,770	1,210 H	383	312
		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	2,200	1,200	420 B	310 B
ACW-23		12/2/2015	< 0.00018	0.00302	< 0.00021	< 0.00037	2,820	1,940 H	646	291 B
		12/2/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	3,030	1,930	682	343 B
		11/28/2017	< 0.00018	< 0.00020	< 0.00021	< 0.00037	3,150	2,100	761	326 B
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	4,010	1,830 H	700	332
		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	3,300	1,900	630 B	350 B
ACW-24		12/2/2015	0.00152	0.00105	< 0.00021	< 0.00037	113,000	84,700 H	56,800	30,800
		12/2/2016	0.00129	< 0.00020	< 0.00021	< 0.00037	112,000	105,000	52,500	29,100 B
		11/28/2017	0.00187	0.00033 J	< 0.00021	< 0.00037	115,000	110,000	64,000	29,600
		11/7/2018	0.00136	< 0.00100	< 0.00100	< 0.00200	147,000	115,000 H	58,200	31,400
		12/18/2019	0.00210	0.00027 J	< 0.00100	< 0.00200	120,000	72,000	69,000 B	33,000 B
ACW-25		12/2/2015	0.10600	0.00105	0.00038 J	0.00227	34,300	22,600 H	15,700	4,490
		12/2/2016	0.01660	0.00031	< 0.00021	< 0.00037	40,400	31,200	16,000	5,390
		11/28/2017	0.01890	< 0.00020	< 0.00021	< 0.00037	41,500	33,400 H	22,400	5,660
		11/7/2018	0.0204	< 0.00100	< 0.00100	< 0.00200	54,400	34,100 H	20,200	6,160
		12/18/2019	0.0240	< 0.00100	< 0.00100	0.00044 J	45,000	42,000	23,000 B	6,600 B
ACW-26		12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	1,300	600	260 B	170 B
	D	12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	1,300	640	230 B	160 B
ACW-27		12/18/2019	0.00050 J	< 0.00100	< 0.00100	< 0.00200	4,100	3,200	1,200 B	330 B
	D	12/18/2019	0.00050 J	< 0.00100	< 0.00100	< 0.00200	4,100	3,200	1,200 B	340 B
ACW-28		12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	820	450	54 JB	79 B
	D	12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	810	440	84 JB	74 B
ACW-29		12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	730	390	44 B	83 B
	D	12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	730	410	41 B	77 B

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
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Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ACW-30S		11/7/2018	< 0.0010	< 0.00100	< 0.00100	< 0.00200	1,170	440 H	146	71
		12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	820	470	130 B	72 B
ACW-30D		11/7/2018	0.00110	< 0.00100	< 0.00100	< 0.00200	46,800	30,400 H	15,800	5,120
		12/18/2019	0.00150	0.00037 J	< 0.00100	< 0.00200	40,000	39,000	19,000 B	6,100 B
ACW-32S		11/7/2018	< 0.0010	< 0.00100	< 0.00100	< 0.00200	6,080	3,100 H	1,080	287
		12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	3,900	3,400	780 B	290 B
ACW-32D		11/7/2018	< 0.0010	< 0.00100	< 0.00100	< 0.00200	2,970	1,410 H	602	178
		12/18/2019	< 0.0010	< 0.00100	< 0.00100	< 0.00200	1,500	850	260 B	120
RW-01		11/3/2000	0.13000	0.04000	0.07300	0.12000	62,000	43,900	32,000	22,000
		11/9/2004	0.11400 R	0.02410	0.07030	0.06210	67,670	39,900	23,700	12,400
		12/15/2005	0.13600	0.02070	0.09050	0.09180	48,800	32,600	13,600	11,500
		3/5/2007	0.09300	0.02500	0.05900	0.07100	47,800	30,400	22,500	10,800
		11/12/2007	0.11000	0.04700	0.06900	0.08100	44,900	29,700	16,800	10,600
		11/17/2008	0.05700	0.03900	0.03700	0.05200	38,400	26,600	17,700	8,530
		2/19/2010	0.12000	0.10000	0.05600	0.08400	34,600	35,000	22,600	11,600
		12/7/2010	0.08600	0.06900	0.04600	0.07100	27,500	28,600	20,800	9,880
	D	12/7/2010	0.09400	0.07000	0.05000	0.07600	---	34,000	21,900	10,500
		11/9/2011	0.07360	0.05350	0.03340	0.05300	4,100	26,100	16,200	8,750
RW-02	D	11/9/2011	0.07680	0.05620	0.03500	0.05560	40,100	26,400	17,300	8,860
		11/3/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	7,340	5,660	2,800	680
		10/25/2001	---	---	---	---	8,380	5,050	2,400	---
		11/6/2002	0.00150	< 0.00100	< 0.00100	< 0.00300	8,700	5,800	3,500	1,400
		11/10/2004	0.00210	0.00048 J	< 0.00100	< 0.00200	5,870	7,000	2,850	1,220
		12/14/2005	0.00190 J	< 0.00200	< 0.00200	< 0.00600	8,450	5,060	2,280	1,100
		3/6/2007	0.00420	< 0.00100	< 0.00100	< 0.00100	10,320	7,200	3,950	1,510
		11/19/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	13,830	10,800	5,850	1,910
		2/24/2010	0.00400	< 0.00100	< 0.00100	< 0.00100	21,700	5,780	2,510	1,170
		12/9/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	11,340	8,620	3,840	1,590

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
RW-02 (cont'd)		11/9/2011	0.00540	< 0.00100	< 0.00100	< 0.00300	10,100	6,140	2,990	1,450
	D	11/9/2011	0.00620	< 0.00100	< 0.00100	< 0.00300	10,100	6,640	3,030	1,360
RW-03		11/8/2012	0.09140	0.06060	0.02280	0.03980	88,400	74,000	58,200	27,200
ENSR-01		5/7/1997	0.00730	0.00370	0.00240	0.00200	8,620	5,200	3,200	---
		10/21/1997	0.01300	0.00630	0.00420	0.00560	13,800	7,600	4,400	---
		5/12/1998	0.01300	0.00460	0.00400	0.00440	12,000	6,700	3,600	---
		10/20/1998	---	---	---	---	12,400	7,590	4,200	---
		5/11/1999	---	---	---	---	14,700	8,450	5,500	---
		10/20/1999	---	---	---	---	12,400	6,290	4,100	---
		5/9/2000	---	---	---	---	12,800	7,420	6,200	---
		10/27/2000	---	---	---	---	10,200	6,690	3,800	---
	D	10/27/2000	---	---	---	---	10,600	7,140	4,000	---
		5/2/2001	---	---	---	---	19,200	10,200	7,600	---
		10/23/2001	---	---	---	---	15,300	8,050	5,100	---
	D	10/23/2001	---	---	---	---	11,400	6,070	3,600	---
		4/29/2002	---	---	---	---	9,480	4,770	3,800	---
		11/4/2002	0.01800	< 0.01000	< 0.01000	< 0.03000	12,000	7,600	4,500	1,900
		11/4/2003	0.01310	0.00120 J	0.00310	0.00310 J	6,510	2,260	2,600	2,710
		11/10/2004	0.01080	0.00110	0.00280	0.00200	5,800	3,900	1,920	881
	D	11/10/2004	0.01140 R	0.00130	0.00240	0.00170 J	---	3,150	1,420	823
		12/13/2005	0.00990	< 0.00200	0.00220	< 0.00600	5,530	2,740	1,120	969
		3/6/2007	0.00740	< 0.00100	0.00250	0.00240	4,860	4,010	2,230	882
		11/13/2007	0.01100	< 0.00100	0.00370	0.00190	7,430	2,830	1,230	1,040
		11/18/2008	0.00620	< 0.00100	0.00220	0.00130	7,690	3,270	1,680	1,140
		2/25/2010	0.00410	< 0.00100	0.00110	< 0.00100	13,890	3,760	1,640	1,330
	D	2/25/2010	0.00420	< 0.00100	0.00120	< 0.00100	---	3,760	1,630	1,240
		12/9/2010	0.01200	0.00140	0.00090 J	0.00120 J	22,500	9,210	4,620	2,310
	D	12/9/2010	0.01200	0.00025 J	< 0.00100	< 0.00100	---	7,670	4,690	2,370

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ENSR-01 (cont'd)		11/10/2011	0.00690	0.00063 J	0.00210	0.00200 J	10,600	5,680	3,120	1,840
	D	11/10/2011	0.00690	0.00066 J	0.00190	0.00190 J	11,800	6,520	3,500	2,010
		11/7/2012	0.00820	< 0.00100	0.00170	0.00100 J	11,800	7,480	3,940	2,300
		1/13/2014	0.00786	< 0.00030	0.00156	0.00106 J	13,600	6,240	4,410	2,420
		1/6/2015	0.00598	0.00039 J	0.00260	0.00111 J	6,610	2,850	2,260	982
		12/1/2016	0.01480	0.00047 J	0.00160	0.00137 J	21,800	15,100	8,620	4,410 B
		11/28/2017	0.01360	0.00055 J	0.00205	0.00124 J	20,700	16,400	8,280	3,740 B
		11/7/2018	0.01420	< 0.00100	0.00248	< 0.00200	25,200	13,400 H	7,330	4,000
ENSR-02		12/18/2019	0.01700	0.00059 J	0.00270	0.00140 J	19,000	11,000	3,800 B	3,600 B
		5/6/1997	0.25000	0.23000	0.11000	0.19000	50,000	27,000	17,000	---
		10/20/1997	0.13000	0.16000	0.07700	0.12000	57,900	30,000	17,000	---
		5/12/1998	---	---	---	---	38,000	21,000	13,000	---
		10/19/1998	---	---	---	---	44,800	30,000	18,000	---
		5/11/1999	---	---	---	---	49,100	31,200	18,000	---
		10/19/1999	---	---	---	---	28,900	16,600	9,400	---
		5/9/2000	---	---	---	---	42,900	26,700	18,000	---
		10/29/2001	---	---	---	---	42,000	25,100	13,000	---
		11/9/2004	0.07210 R	0.02840	0.01810	0.09380	35,500	22,500	12,900	7,840
		12/14/2005	0.04940	0.05340	0.02150	0.03290	34,400	20,600	10,400	7,810
		3/5/2007	0.01000	0.01200	0.00450	0.00730	33,300	22,100	12,400	7,840
		11/17/2008	0.07200	0.09600	0.03800	0.07000	39,200	24,200	18,200	8,190
	D	11/17/2008	0.07300	0.09900	0.03900	0.07200	---	24,000	15,500	7,260
		2/19/2010	0.03000	0.03000	0.01300	0.02280	33,600	15,400	9,560	5,260
		12/8/2010	0.02800	0.03800	0.00910	0.01650	11,000	15,300	8,500	5,780
		11/10/2011	0.00510	0.00810	0.00160	0.00300	16,300	9,620	7,100	3,340
ENSR-03		5/7/1997	0.00760	0.00330	0.00290	0.00300	2,050	1,500	650	---
	D	5/7/1997	0.00680	0.00310	0.00280	0.00290	1,990	1,400	480	---
		10/21/1997	0.00500	0.00250	0.00300	0.00410	2,230	1,300	580	---

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ENSR-03 (cont'd)		5/12/1998	0.00950	0.00340	0.00190	0.00270	2,400	1,400	610	---
	D	5/12/1998	0.01400	0.00440	0.00230	0.00440	2,200	1,300	550	---
		10/20/1998	---	---	---	---	2,260	1,580	590	---
	D	10/20/1998	---	---	---	---	2,240	1,290	540	---
		5/11/1999	---	---	---	---	2,490	1,370	500	---
	D	5/11/1999	---	---	---	---	2,480	1,380	610	---
		10/20/1999	---	---	---	---	2,390	1,630	600	---
	D	10/20/1999	---	---	---	---	2,390	1,560	590	---
		5/9/2000	---	---	---	---	2,360	1,580	710	---
	D	5/9/2000	---	---	---	---	2,410	1,580	710	---
		10/27/2000	---	---	---	---	2,410	1,870	640	---
		5/2/2001	---	---	---	---	2,480	1,240	610	---
	D	5/2/2001	---	---	---	---	2,490	1,270	680	---
		10/23/2001	---	---	---	---	2,480	1,300	620	---
		4/29/2002	---	---	---	---	2,500	1,350	580	---
	D	4/29/2002	---	---	---	---	2,370	1,390	490	---
		11/4/2002	0.00710	< 0.00500	0.02200	0.02500	2,100	1,400	520	190
		11/3/2003	0.00930	< 0.00200	0.01120	0.01140	2,020	1,460	471	174
		11/10/2004	0.01200	0.00042 J	0.00380	0.00340	2,310	1,810	561	168
		5/23/2005	0.01300	< 0.00200	0.00240	< 0.00600	2,330	1,510	523	180
		12/12/2005	0.01160	< 0.00200	0.00320	0.00270 J	2,450	1,240	564	191
	D	12/12/2005	0.01190	< 0.00200	0.00330	0.00270 J	---	1,240	558	176
		3/6/2007	0.00670	< 0.00100	0.01700	0.01800	2,150	1,460	536	158
		11/12/2007	0.01100	< 0.00100	0.02200	0.02200	2,360	1,630	477	150
		11/17/2008	0.00550	< 0.00100	0.01200	0.01300	2,100	1,390	422	126
		2/25/2010	0.00290	< 0.00100	0.00820	0.00560	2,390	1,550	364	150
		12/8/2010	0.01900	0.00073 J	0.01400	0.01949	8,000	2,060	552	177
		11/10/2011	0.00420	< 0.00100	0.00410	0.00290 J	1,990	1,150	393	1,630

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
ENSR-03 (cont'd)		11/7/2012	0.04320	< 0.00100	0.00380	0.00620	2,280	1,320	476	173
		1/10/2014	0.03020	< 0.00030	0.00190	0.00714	2,370	1,430	495	173
		1/10/2015	0.01250	0.00087	0.00091	< 0.00023	2,790	1,760	750	173
		12/3/2015	0.00830	0.00113	0.00079	J < 0.00037	2,740	1,850	H 811	191
		12/1/2016	0.01060	< 0.00020	0.00080	J < 0.00037	2,800	1,840	741	185 B
Oxy Supply		5/13/1998	< 0.00050	< 0.00050	< 0.00050	< 0.00100	800	480	120	65
		8/11/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	762	604	120	67
		10/20/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	734	488	100	---
		2/23/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00200	810	407	120	82
		5/13/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00200	808	468	120	71
		8/11/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00200	831	466	140	72
		10/22/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00400	788	490	130	73
		2/23/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00600	630	392	38	71
		5/11/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	835	504	120	72
		8/7/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	802	433	120	68
		11/2/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	662	475	120	71
		2/20/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00400	805	442	130	68
		5/7/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00200	781	481	140	65
		8/1/2001	< 0.00200	< 0.00200	< 0.00200	Jc < 0.00200	807	532	120	66
		10/25/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00200	822	500	120	64
		9/25/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00400	827	552	34	60
		11/6/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	820	580	140	73
		3/26/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	870	556	162	53
		5/19/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	863	544	190	61
		8/19/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	786	500	126	64
		11/3/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	822	572	154	62
		2/25/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	830	548	136	70
		5/13/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	851	922	157	70

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
Oxy Supply (cont'd)	D	5/13/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	568	162	67
		8/25/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	849	654	193	72
	D	8/25/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	650	200	73
		11/11/2004	< 0.00100	< 0.00100	< 0.00100	< 0.00200	984	588	135	66
		2/15/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,226	397	29	64
		5/25/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	935	611	147	63
		8/23/2005	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00600 H	1,190	650	217	84
		12/15/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,238	696	228	85
		2/14/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,198	635	213	76
		5/8/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,098	513	171	71
		8/23/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	980	556 R H	168	66
		3/8/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,036	730	199	74
	D	3/8/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	702	199	75
		5/16/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,094	699	202	73
	D	5/16/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	730	201	75
		8/23/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,159	701	186	68
		11/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,059	796	188	71
		4/1/2014	< 0.00014	< 0.00030	< 0.00022	< 0.00023	1,480	827	287	102
		5/29/2014	< 0.00014	< 0.00030	< 0.00022	< 0.00023	1,370	976	281	103
		9/10/2014	< 0.00014	< 0.00030	< 0.00022	< 0.00023	1,130	736	222	93
		1/12/2015	< 0.00014	< 0.00030	< 0.00022	< 0.00023	1,450	760	297	105
		3/4/2015	< 0.00033	< 0.00033	< 0.00020	< 0.00023	1,340	845	286	89
		6/3/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,450	1,000	298	103
		9/30/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,330	872	440	101
		12/8/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,230	970	230	99 B
		3/16/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00198	1,400	1,050	234	100
		5/18/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00198	1,410	1,200	262	99
		8/17/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,200	800	221	92

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
Oxy Supply (cont'd)		12/2/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,160	702	201	92
		3/14/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,180	730	201 B	100
		6/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,370	1,050	290	107
		9/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,410	980	264	104
		11/28/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	1,390	924	289	111 B
		2/21/2018	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,360	804	265	99 B
		5/9/2018	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,410	940	235	103 B
		8/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,470	840	245	101
		11/8/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,910	912 H	262	107
		3/5/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,310	864	254	106
		6/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,400	720	220	98
		9/10/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,500	810	250 B	110
		12/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,600	840	280 B	100
EPNG-01		5/8/1997	0.00056	0.00055	< 0.00050	< 0.00100	718	---	---	---
		10/23/1997	< 0.00050	< 0.00050	< 0.00050	< 0.00100	890	470	91	---
		5/14/1998	---	---	---	---	850	500	67	---
	D	5/14/1998	< 0.00050	< 0.00050	< 0.00050	< 0.00100	860	520	67	---
		10/22/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	994	659	56	---
		5/14/1999	---	---	---	---	846	469	70	---
		10/23/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00600	891	540	3	---
		10/27/2000	---	---	---	---	850	603	94	---
		10/29/2001	---	---	---	---	890	523	65	---
		11/8/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	940	600	60	91
		11/7/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	733	600	62	81
		11/12/2004	< 0.00100	< 0.00100	< 0.00100	< 0.00200	963	516	68	88
		12/15/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,103	674	52	62
		3/9/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	747	485	58	80
		11/16/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	738	851	52	70

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
EPNG-01 (cont'd)	D	11/16/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	670	52	71
		11/20/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,118	674	71	76
	D	11/20/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	670	71	76
		2/24/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	1,060	420	63	89
		12/9/2010	0.00030 J	0.00160	0.00320	0.00293	2,300	980	74	87
		11/10/2011	0.00060 J	< 0.00100	< 0.00100	< 0.00300	962	573	61	80
		11/7/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	982	607	65	97
	D	11/7/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	1,010	617	68	96
		1/12/2015	< 0.00030	< 0.00030	< 0.00020	< 0.00023	2,790	414	64	92
		12/4/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,140	806 H	201	164 B
		12/1/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	820	522	77	103 B
		11/28/2017	< 0.00018	< 0.00020	< 0.00021	< 0.00037	1,350	894	274	113 B
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,760	854 H	217	110
	D	11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	1,760	850 H	215	110
		12/18/2019	< 0.00100	< 0.00100	0.00022 J	< 0.00200	1,200	640	180 B	99
Doom Supply		2/24/1998	< 0.00050	< 0.00050	< 0.00050	< 0.00100	634	410	38	64
		5/13/1998	< 0.00050	< 0.00050	< 0.00050	< 0.00100	640	410	30	
		8/10/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	629	450	34	71
		10/20/1998	< 0.00200	< 0.00200	< 0.00200	< 0.00600	636	464	35	69
		2/23/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00200	627	364	31	72
		5/13/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00200	630	381	34	72
		8/11/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00200	629	372	30	73
		10/21/1999	< 0.00200	< 0.00200	< 0.00200	< 0.00400	617	400	32	77
		2/23/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00600	814	506	130	69
		5/10/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	619	417	31	72
		8/14/2000	< 0.00500	< 0.00500	< 0.00500	< 0.01000	597	400	28	4
		11/2/2000	< 0.00200	< 0.00200	< 0.00200	< 0.00400	530	375	32	79
		2/20/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00400	619	372	33	67

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
Doom Supply (cont'd)		5/3/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00200	615	419	30	73
		8/1/2001	< 0.00200	< 0.00200	< 0.00200 Jc	< 0.00200	618	374	28	66
		10/29/2001	< 0.00200	< 0.00200	< 0.00200	< 0.00600	622	396	28	64
		2/20/2002	< 0.00200	0.01900	0.00390	0.02400	620	373	31	65
	R	2/20/2002	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00200 H	---	---	---	---
		3/27/2002	---	---	---	---	---	---	---	---
		5/2/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00200	624	351	30	65
		9/25/2002	< 0.00200	< 0.00200	< 0.00200	< 0.00400	626	411	68	63
		11/5/2002	< 0.00100	< 0.00100	< 0.00100	< 0.00300	620	470	29	70
		3/26/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	585	386	30	51
		5/20/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	602	410	36	63
		8/20/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	561	366	31	66
		11/6/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	6	406	28	65
	D	11/6/2003	< 0.00200	< 0.00200	< 0.00200	< 0.00600	---	398	29	63
		2/25/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	583	388	28	67
		5/13/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	609	396	3	63
		8/25/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	567	390	43	64
		11/15/2004	< 0.00200	< 0.00200	< 0.00200	< 0.00600	602	404	28	62
		2/15/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	784	659	84	74
		5/25/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	619	403	29	58
		8/23/2005	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00600 H	652	384	29	66
	D	8/23/2005	< 0.00200 H	< 0.00200 H	< 0.00200 H	< 0.00600 H	---	384	29	66
		12/15/2005	< 0.00200	< 0.00200	< 0.00200	< 0.00600	641	408	29	69
		2/14/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	645	384	28	60
		5/9/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	635	316	30	57
		8/23/2006	< 0.00200	< 0.00200	< 0.00200	< 0.00600	641	374	31	62
		3/6/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	631	415	32	66
		5/16/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	699	446	34	63

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
Doom Supply (cont'd)		8/23/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	723	426	31	59
		11/15/2007	< 0.00100	< 0.00100	< 0.00100	< 0.00100	619	447	31	63
		2/20/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	700	417	31	66
		6/10/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	669	451	35	67
		8/12/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	760	461	34	57
		11/18/2008	< 0.00100	< 0.00100	< 0.00100	< 0.00100	735	390	35	61
		3/4/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	641	485	29	65
		8/26/2009	0.00230	< 0.00100	< 0.00100	< 0.00100	721	426	32	65
		9/17/2009	< 0.00100	< 0.00100	< 0.00100	< 0.00100	---	---	---	---
		2/19/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	765	409	36	57
		6/28/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	642	215		66
		9/21/2010	< 0.00100	0.00028	< 0.00100	< 0.00100	661	449	30	64
		12/8/2010	< 0.00100	< 0.00100	< 0.00100	< 0.00100	8,490	930	33	68
		2/16/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00100	614	457	33	66
		5/11/2011	< 0.00200	< 0.00200	< 0.00200	< 0.00600	1,159	395	30	62
		8/17/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	569	569	30	65
		11/10/2011	< 0.00100	< 0.00100	< 0.00100	< 0.00300	635	250	29	60
		2/14/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	637	373	30	64
		5/8/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	646	347	33	67
		8/13/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	650	374	31	66
		11/5/2012	< 0.00100	< 0.00100	< 0.00100	< 0.00300	636	409	36	60
		3/5/2013	< 0.00100	< 0.00100	< 0.00100	< 0.00300	627	408	31	69
		6/28/2013	< 0.00100	< 0.00100	< 0.00100	< 0.00300	426	416	31	72
		10/5/2013	< 0.00100	< 0.00100	< 0.00100	< 0.00300	387	443	29	68
		4/1/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	659	403	31	67
		5/29/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	592	416	29	68
		9/10/2014	< 0.00014	< 0.00030	< 0.00020	< 0.00023	617	351	34	68
		1/12/2015	< 0.00014	< 0.00030	< 0.00020	< 0.00023	609	423	28	62

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
Doom Supply (cont'd)		3/4/2015	< 0.00033	< 0.00033	< 0.00020	< 0.00023	587	404	29	65
		6/3/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	646	374	30	0
		9/30/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	616	411	30	66
		12/16/2015	< 0.00018	< 0.00020	< 0.00021	< 0.00037	643	378	30	66
		3/16/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00198	617	388	25	66
		5/18/2016	< 0.00056	< 0.00055	< 0.00129	< 0.00198	639	667	36	60
		8/17/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	625	412	57	64
	D	8/17/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	634	424	57	65
		12/2/2016	< 0.00018	< 0.00020	< 0.00021	< 0.00037	635	399	43	66
		3/14/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	628	429	30 B	70
		6/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	627	577	44	65
		9/21/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	636	438	43	64
		11/28/2017	< 0.00018 U	< 0.00020 U	< 0.00021 U	< 0.00037 U	665	541	20	67
		2/21/2018	< 0.00018	< 0.00020	< 0.00021	< 0.00037	644	403	43.4	62
		5/9/2018	< 0.00018	< 0.00020	< 0.00021	< 0.00037	642	423	57.7	64 B
		8/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	652	385	33.6	62
		11/7/2018	< 0.00100	< 0.00100	< 0.00100	< 0.00200	817	414 H	29.6	67
		3/5/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	607	371	31.4 F1	66.6
		6/18/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	640	390	27	63
		9/10/2019	< 0.00100	< 0.00100	< 0.00100	< 0.00200	650	380	30	65
		12/18/2109	< 0.00100	< 0.00100	< 0.00100	< 0.00200	650	370	33 B	62
PTP-01		5/7/1997	0.03800	0.00051	0.02200	0.00840	2,420	1,500	490	---
		10/21/1997	0.00790	< 0.00050	0.01800	0.00310	2,250	1,400	470	---
		5/12/1998	0.06200	0.00160	0.02100	0.01300	2,300	1,400	480	---
		10/20/1998	0.00000	---	---	---	2,090	1,410	380	---
		5/11/1999	0.00000	---	---	---	2,250	1,240	330	---
		10/20/1999	0.00000	---	---	---	2,300	1,630	460	---
		5/9/2000	0.00000	---	---	---	2,210	1,400	510	---

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
PTP-01 (cont'd)		10/27/2000	0.00000	---	---	---	2,050	1,570	530	---
		5/2/2001	0.00000	---	---	---	2,370	1,240	520	---
		10/23/2001	0.00000	---	---	---	2,370	1,280	550	---
		4/29/2002	0.00000	---	---	---	2,390	1,400	500	---
		11/4/2002	0.05000	< 0.01000	0.01500	0.02400	2,000	690	480	170
		11/3/2003	0.02180	< 0.00200	0.01350	0.00880	2,130	1,380	469	190
		11/10/2004	0.01360	< 0.00100	0.01870	0.00960	2,300	1,560	496	167
		12/12/2005	0.01370	0.00160 J	0.02250	0.02640	2,360	1,140	442	192
		3/6/2007	0.01900	< 0.00100	0.01500	0.03450	2,150	1,280	397	222
		11/12/2007	0.01900	< 0.00100	0.02000	0.03130	2,200	1,380	348	197
		11/17/2008	0.01100	< 0.00100	0.02400	0.02620	2,110	1,250	351	145
		2/25/2010	0.00430	< 0.00100	0.01900	0.01400	2,050	1,120	265	183
		12/8/2010	0.00260	0.00096 J	0.01900	0.00910	7,000	15,200	336	176
		11/10/2011	0.00310	< 0.00100	0.01350	0.01570	2,050	992	349	165
		11/8/2012	< 0.00100	< 0.00100	0.00460	< 0.00300	1,820	1,110	331	140
		1/10/2014	0.00120	< 0.00030	0.00140	0.00809	1,890	1,050	278	174
		1/6/2015	< 0.00030	0.00180	0.00631	0.00053	2,230	1,260	519	162
		11/28/2017	0.00061 J	< 0.00030	0.00182	0.00100 J	2,140	1,480	528	178 B
		11/7/2018	0.00197	0.00151	0.00213	0.00233	2,690	1,280 H	476	160
		12/18/2019	0.00110	< 0.00100	0.00230	0.00460	2,100	1,300	430 B	160 B

Table 3
Groundwater Analytical Results
 El Paso Natural Gas Company, LLC
 Jal No. 4 Gas Plant
 Lea County, New Mexico

Well ID	QA/QC	Sample Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	Specific Conductance µmhos/cm	Total Dissolved Solids mg/L	Chloride mg/L	Sodium mg/L
Regulatory Limit			0.01 mg/L	0.75 mg/L	0.75 mg/L	0.62 mg/L	--	1,000 mg/L	250 mg/L	--
Injection Well		11/9/2004	0.08070	0.01400	0.02560	0.02510	---	20,300	11,300	6,010
		12/15/2005	0.08440	0.02040	0.04050	0.04040	36,800	23,800	7,850	8,620
		3/6/2007	0.05300	0.03200	0.13000	0.03610	29,400	19,200	13,900	6,690
		11/16/2007	0.08000	0.03600	0.06800	0.06200	37,900	26,900	15,600	9,260
		11/20/2008	0.05200	0.03800	0.08200	0.03970	23,600	17,300	10,500	5,250
		2/19/2010	0.02200	0.01300	0.02300	0.01560	19,600	11,000	7,440	3,700
		12/8/2010	0.07200	0.05300	0.09000	0.05900	19,000	22,900	14,300	7,240

Notes:

< : Denotes a sample value of less than the MDL

--- : No analysis performed

Bold Font: Indicates a detection above the laboratory detection limit

Bold Font: Indicates regulatory limit exceedance

B: Compound was found in the blank and sample

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

U: Indicates the analyte was not detected at or above the MDL

D: Indicates a duplicate sample

H: Sample was prepped or analyzed beyond the specified holding time

F1: Indicates the MS and/or MSD recovery is outside of acceptance limits

Appendix A

Site Chronology

SITE CHRONOLOGY

Date	Activity
1952	Jal #4 Plant was constructed. It consisted of a gas plant, purification plant, dehydration plant, and compressor facilities. Brine and wastewater was stored in 8 unlined, retention ponds from 1952 to 1981.
1981	Since 1981, brine produced at the plant has been discharged into 3 ponds (brine ponds #9, #10 and #11) with synthetic liners.
October 19, 1982	EPNG met with NMOCD in Santa Fe, NM to discuss the Plant's Wastewater Disposal Plan.
November 16, 1982	Soil samples in dry ponds (#3 and #8) were taken and analyzed for various organic compounds. The analyses were reported in the Plant's Discharge Plan. Groundwater Discharge Plan for Jal #4 was approved by NMOCD.
November 29, 1982	EPNG representative met with NMOCD in Santa Fe, NM to discuss the closure plan for disposal ponds and to provide a progress report on the evaluation of organic constituents in pond sludges.
December 20, 1982	EPNG sampled and analyzed pond sludge for organic constituents. Only total phenols exceeded NMOCD standards.
1982	All ponds, not including the 3 brine ponds, were closed and capped in accordance with NMOCD. A leak detection system was installed in the brine ponds.
February 1985	In conjunction with the closure of the ponds it was necessary to ensure that storm water would not be generated in the area of the former ponds. Substantial grading east of the plant boundary was conducted, culverts were installed under the railroad and highway, and drainage was directed away from Plant property.
1987	EPNG plant operations were shutdown. Christie Gas began operating compressor facilities and using the lined ponds.
May 20, 1988	Texaco and Meridian, considering a possible joint venture, performed an environmental safety audit of Jal #4 to become acquainted with the environmental/safety concerns, if any, that would have to be addressed by Texaco and Meridian co- ownership and operation of the proposed cryogenic plant. The audit included a subsurface investigation which resulted in the detection of several organic compounds (i.e.: phenols, PCB, BTEX) in subsurface soils near pond #3.
1989	A leak was detected in a brine pond, the exact one is not known. Two brine ponds were retired. In response to the reported leak, NMOCD requested a hydrologic study be performed.
May 2, 1989	Texaco collected surface samples, sludges, soil, and core samples at Jal #3 and Jal #4. Neither Texaco nor EPNG found anything unusual in the data except for chloride contamination in the deepest core on pond #3 at Jal #4. This led to the drilling of 3 monitor wells (ENSR-1 through ENSR-3) and a limited groundwater study. The preliminary findings indicated chloride contamination.

Date	Activity
May 10, 1989	EPNG received a copy of the new discharge plan from KWB for submittal to NMOCD.
May 23, 1989	EPNG requested KWB be contracted to provide continuing consulting services on geotechnical issues.
June 7, 1989	EPNG requested ENSR be contracted to conduct a closed pit and groundwater survey.
June 16, 1989	ENSR submitted a workplan for subsurface investigation/ monitoring well installation to assess the presence of potential soil and groundwater contamination based on Texaco's previous investigations.
August 1989	Groundwater quality assessment was performed by ENSR, including the results of installing ENSR-1 through ENSR-3.
August 18, 1989	NMOCD required that EPNG take corrective action steps concerning the Plant's brine ponds. EPNG applied with NMOCD to exempt one brine pond receiving only brine water and no oil-bearing wastewater from Rule R-8952.
August 31, 1989	EPNG met with NMOCD to discuss Answer data from the groundwater quality report. EPNG provided analytical results from soil samples, and a brief chronology of Texaco's environmental audit. The scope of the geotechnical study was negotiated.
March 21, 1990	EPNG submitted South Region Compliance Engineering's closure plan for two brine storage ponds and for the plugging of gas wells to the NMOCD.
April 4, 1990	NMOCD approved closure plan for the brine storage ponds.
May 1, 1990	KWB began an expanded geohydrological study.
May 24, 1990	EPNG filed a report for the period 11-86 to 5-90 with NMOCD concerning an on-site disposal well that has been inactive during this time.
June 1990	"Proposed scope of work for environmental investigation of the EPNG refinery" was prepared by John Mathes at the request of Meridian Oil, Inc. The purpose of this work is to obtain Phase II data and cost estimate assumptions. Phase I. KWB resampled wells to determine: aquifer characteristics, depth to groundwater, flow direction, hydraulic gradient, and plume configuration.
August 1990	KWB finalized the Phase I report, "Expanded Hydrogeology Study for the Jal 4 Facility." In the report KWB stated that inorganic and organic contaminants were detected above WQCC standards. Computer modelling suggested the contamination plume is migrating to the southeast and is off-site. EPNG was granted an extension by NMOCD until 3-31-91 to close the brine ponds.

Date	Activity
October 4, 1990	Results from Phase I investigations indicated that a contamination plume with high levels of chloride and low levels of benzene exists beneath the plant. The existence of the plume may be due to past plant operations. KWD recommended Phase II activities which include the drilling of three additional monitor wells and the drilling of an observation well to obtain information on aquifer conductivity.
November 1990	Phase II. KWB installed and sampled ACW wells (ACW-1 through ACW-3), installed piezometer (PTP-1), performed pump tests, and defined a chloride contamination plume.
January 1991	KWB finalized the Phase II report, "Expanded Hydrogeology Study for the Jal-4 Facility." The report confirmed that the chloride contamination groundwater plume is tied to past operation of the wastewater ponds. KWB suggested that any remediation required must deal with the removal of salts from the groundwater.
February 26, 1991	NMOCD requested EPNG to decide on a plan of action for closing or repairing the brine pits by 3-31-91.
March 14, 1991	EPNG met with NMOCD to discuss the sale of Jal #4 "B" Plant and propane storage wells to Christie Gas.
March 18, 1991	EPNG notified Christie Gas of the existence of a new discharge plan for the Plant.
March 27, 1991	EPNG submitted a request to NMOCD for time extension to close or repair 2 brine storage ponds.
April 24, 1991	EPNG sent supplemental information to Christie Gas regarding requested information about Jal #4's environmental and other compliance issues.
July 15, 1991	Ownership of 4 LPG storage wells at Jal #4 were transferred from EPNG to Christie Gas.
October 1991	International Technology Corporation submitted an expanded geohydrological study (Phase III) for Jal #4.
December 13, 1991	EPNG sent copies of Jal #4's Discharge Plan to Christie Gas Corporation.
February 5, 1992	BEI performed a "Terrain Conductivity Survey for Jal #4." Readings were unreliable due to interference in the study area.
February 1992	Phase III. BEI determined vertical and horizontal extent of the contamination plume, confirmed EM survey, and made recommendations for remediation.
May 15, 1992	Permission was received from the State of New Mexico to enter state lands to drill three monitoring wells for remediation of chloride contaminated groundwater.
July 7, 1992	BEI installed four new monitoring wells; one at the Plant, and three on state property east of the Plant (ACW-4 through ACW-7).
September 2, 1992	Application sent to State of New Mexico Commissioner of Public Lands to request permission to enter state lands to drill four new groundwater recovery wells as part of Phase IV activities.

Date	Activity
November 1992	BEI finalized the Phase III report, "Groundwater Study Jal No. 4 Plant." Groundwater analysis detected inorganic and organic contaminants exceeding WQCC standards. The source of the contamination is believed to be from the brine ponds, however, the exact pond or ponds is still unknown.
December 1992	Christie Gas sold the plant to Texas LPG Storage Company.
January 27, 1993	Rights obtained for construction of 2 monitoring wells on Mr. Doom's grazing lease as part Phase IV activities to monitor the extent of off-site chlorine contamination.
March 30, 1993	Meeting between NMOCD and EPNG was held to discuss groundwater study/remediation at Jal #4. EPNG requested this meeting to update NMOCD on Phase III monitoring well installation and sampling results and to discuss Phase IV installation of 4 additional monitoring wells. NMOCD recommended what contaminants EPNG should sample for, requested that a status report be prepared once Phase IV activities are completed, and requested modelling for remedial options.
June 14, 1993	Phase IV. BEI initiated a monitoring well installation program (ACW-8 through ACW-11).
November 18, 1993	BEI finalized the "Phase IV Groundwater Investigation Report, Jal No. 4 Plant." The report recommended the initiation of possible "pump and inject" on-site groundwater recovery and disposal, installation of a monitoring well cluster at the leading edge of the chloride plume, continued quarterly sampling, and an evaluation of the recovery system following a one-year period of operation.
October 16, 1996	Philip Environmental Submitted Phase II Site Assessment Report detailing the installation and results of installing monitoring wells ACW-12 through ACW-14 and recover wells RW-1 through RW-2.
January 1997	Groundwater monitoring program began including quarterly and annual sampling with Annual Reporting to the NMOCD.
October, 1999	Groundwater Recovery began from RW-01. Monitoring well ACW-15 was installed.
January, 2000	Groundwater Recovery began from RW-02.
February 6, 2003	Atkins Americas, Inc. prepared a groundwater modelling report.
April 2005	Monitoring wells ACW-3 and ACW-8 pilot tests as groundwater recovery wells.
October 2005	Monitoring wells ACW-3 and ACW-8 were permitted by the NMOSE to be operated as production wells and were configured as permanent recovery wells and made operational.
March 2007	Texas LPG Storage company sold the plant to Western Refining, Inc.
January 2012	Groundwater monitoring continued. The well screen of Shell State #13 was fouled in 2012 and the groundwater recovery system was shut in.

Date	Activity
May 2012	The recovery pump became stuck in ENSR-02. The well was plugged and replaced with RW-3.
January 2013	Groundwater monitoring continued, the recovery system was not operated.
January 2014	Groundwater monitoring continued, the recovery system was not operated.
October 2014	Monitoring wells ACW-16 through ACW-21 installed within the plant boundary adjacent to existing wells with alternate screened intervals.
January 2015	Groundwater monitoring continued, the recovery system was not operated.
November 2015	Monitoring wells ACW-22 through ACW-25 were installed east of the plant boundary to further delineate organic and inorganic impacts downgradient from the site. Recovery well RW-4 was installed along the plants eastern border.
January 2016	Groundwater monitoring continued, the recovery system was not operated. The recovery system infrastructure was inspected in 2016. The electrical components are aging significant components need to be replaced or upgraded to meet current engineering standards. The system piping passed pressure testing.
November 9, 2016	Arcadis completed a hydrocarbon treatability study and analyzed the relationship between BTEX biodegradation and Groundwater Salinity at the site to identify the conditions leading to fouling of the injection well screen.
2017	Tesoro Corporation acquired Western Refining, Inc. and will operate the facility as Andeavor Corporation.
October 27, 2017	Arcadis completed a site investigation to further define the vertical and horizontal distribution of chloride and hydrocarbon concentrations within the existing monitor well network footprint, access the upper and lower groundwater quality conditions, increase the accuracy of the hydraulic gradient model across the site, and to develop a surface elevation model of the base of the water bearing zone.
2017	Quarterly groundwater monitoring continued at the site.
2018	Quarterly groundwater monitoring continued at the site.
June-July 2018	Two pairs of nested monitoring wells, ACW-30S/D and ACW-31S/D, were installed east of the Plant across Highway 18.
October 1, 2018	Marathon Petroleum Corp. acquired Andeavor Corp.
2019	Quarterly groundwater monitoring continued at the site.
December 2019	Two sets of paired monitoring wells (ACW-26/ACW-27 and ACW-28/ACW-29) were installed north of the Plant property in December 2019.

Appendix B

2019 Quarterly HMI Data

Table 1
Gauging Data and Groundwater Field Parameters

El Paso Natural Gas Company - Jal #4 Gas Plant
Lea County, New Mexico
March 5, 2019

Well I.D.	1,2,3Q # Wells Sampled	1,2,3Q # Wells Gauged	4Q # Wells Sampled	4Q # Wells Gauged	Ded. Blad Pump	Top of Casing Elev (ft-msl)	Depth to LNAPL (ft-toc)	Depth to Water (ft-toc)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	GW Elev* (ft-msl)	Water Column (ft)	Total Depth (ft-toc)	Stickup (ft)	Screen Interval (ft-bgs)	Sample Intake (ft-toc)	Casing Diam	pH (S.U.)	Temp. (C)	S.C. (umhos)	D.O. (mg/L)	ORP (mV)	Turbidity (NTU)	Water Clarity	Comments
ACW-01		1	1		Yes	3,302.15	NP	105.35	0.00	0.00	3,196.80	30.10	135.45	1.9	110-130	130.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-02A		2	2		Yes	3,302.16	NP	105.58	0.00	0.00	3,196.58	19.91	125.49	2.0	98-118	120.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-03		3		1	No	3,301.62	NP	105.20	0.00	0.00	3,196.42	29.92	135.12	1.6	112-132	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-04		4	3		Yes	3,302.05	NP	107.23	0.00	0.00	3,194.82	63.87	171.10	1.7	154-169	169.1	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-05		5	4		Yes	3,297.18	NP	103.16	0.00	0.00	3,194.02	14.21	117.37	1.5	105-115	114.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-06		6	5		Yes	3,302.84	NP	107.33	0.00	0.00	3,195.51	15.30	122.63	1.7	110-120	119.6	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-07		7	6		Yes	3,297.63	NP	102.34	0.00	0.00	3,195.29	15.05	117.39	1.5	105-115	114.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-08		8		2	No	3,299.54	NP	103.32	0.00	0.00	3,196.22	53.59	156.91	1.2	140-160	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-09		9	7		Yes	3,304.69	NP	110.28	0.00	0.00	3,194.41	52.20	162.48	2.4	140-160	159.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-10		10	8		Yes	3,299.82	NP	106.38	0.00	0.00	3,193.44	56.66	163.04	2.5	140-160	160.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-11		11	9		Yes	3,301.64	NP	105.69	0.00	0.00	3,195.95	55.99	161.68	2.1	140-161	159.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-12		12	10		Yes	3,301.80	NP	109.43	0.00	0.00	3,192.37	62.50	171.93	2.5	150-170	168.9	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-13	1		11		Yes	3,291.72	NP	99.38	0.00	0.00	3,192.34	76.24	175.62	2.0	153-173	172.6	4" PVC	6.92	17.0	1,373	3.2	124.7	4.0	Clear	
ACW-14	2		12		Yes	3,294.74	NP	100.34	0.00	0.00	3,194.40	75.88	176.22	2.0	157-177	173.2	4" PVC	6.99	19.1	680	3.1	86.7	11.6	Clear	Dup-01
ACW-15	3		13		Yes	3,292.75	NP	102.32	0.00	0.00	3,190.43	69.25	171.57	2.3	150-170	168.6	4" PVC	7.19	18.4	789	3.3	73.7	4.0	Clear	
ACW-16		13	14		Yes	3,307.89	NP	109.40	0.00	0.00	3,198.49	67.54	176.94	2.4	156-176	174.9	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-17		14	15		Yes	3,306.17	NP	108.45	0.00	0.00	3,197.72	63.33	171.78	2.6	151-171	169.8	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-18		15	16		Yes	3,303.15	NP	107.40	0.00	0.00	3,195.75	69.80	177.20	2.5	160-180	175.2	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-19		16	17		Yes	3,302.68	NP	106.30	0.00	0.00	3,196.38	14.86	121.16	2.2	98-118	119.2	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-20		17	18		Yes	3,303.50	NP	108.51	0.00	0.00	3,194.99	65.52	174.03	2.2	154-174	172.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-21		18	19		Yes	3,301.82	NP	105.78	0.00	0.00	3,196.04	14.74	120.52	2.1	98-118	118.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-22		19	20		Yes	3,306.24	NP	111.97	0.00	0.00	3,194.27	13.07	125.04	2.5	102-122	123.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-23		20	21		Yes	3,306.29	NP	112.07	0.00	0.00	3,194.22	57.64	169.71	2.3	147-167	167.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-24		21	22		Yes	3,305.56	NP	110.54	0.00	0.00	3,195.02	78.58	189.12	2.2	166-186	187.1	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-25		22	23		Yes	3,297.59	NP	103.34	0.00	0.00	3,194.25	71.34	174.68	2.1	151-171	172.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-30S		23	24		Yes	3,300.17	NP	104.51	0.00	0.00	3,195.66	17.99	122.50	2.3	95-120	117.5	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-30D		24	25		Yes	3,300.15	NP	104.81	0.00	0.00	3,195.34	82.62	187.43	2.3	165-185	177.4	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-32S		25	26		Yes	3,299.60	NP	107.08	0.00	0.00	3,192.52	15.25	122.33	2.5	95-120	117.3	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-32D		26	27		Yes	3,299.61	NP	107.06	0.00	0.00	3,192.55	65.58	172.64	2.5	150-170	162.6	3" PVC	NS	NS	NS	NS	NS	NS	NS	
Doom	4		28		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.98	10.9	563	4.0	126.7	0.6	Clear	
ENSR-01		27	29		Yes	3,306.71	NP	107.73	0.00	0.00	3,198.98	47.62	155.35	1.6	123-148	150.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ENSR-03		28		3	No	3,305.05	NP	107.13	0.00	0.00	3,197.92	47.97	155.10	1.5	123-148	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
EPNG-01		29	30		Yes	3,310.03	NP	109.16	0.00	0.00	3,200.87	54.77	163.93	AG	120-160	160.9	6" Steel	NS	NS	NS	NS	NS	NS	NS	
OXY	5		31		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.40	9.0	1,270	3.5	-32.9	1.9	Clear	
PTP-01**		30	32		Yes	3,305.67	NP	107.72	0.00	0.00	3,197.95	NM	136.09	2.3	110-130	131.1	2" PVC	NS	NS	NS	NS	NS	NS	NS	
RW-01		31		4	No	3,302.16	NP	105.80	0.00	0.00	3,196.36	75.83	181.63	1.8	109-179	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-02		32		5	No	3,303.71	NP	109.28	0.00	0.00	3,194.43	64.37	173.65	1.4	105-175	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-03		33		6	No	3,302.65	NP	106.29	0.00	0.00	3,196.36	71.40	177.69	1.4	136.7-176.7	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-04		34		7	No	3,303.26	NP	108.62	0.00	0.00	3,194.64	67.54	176.16	1.6	154-174	NA	NA	NS	NS	NS	NS	NS	NS	NS	

Notes: Monitoring completed by HMI on behalf of El Paso Natural Gas Company
Gauging and groundwater sampling conducted March 5, 2019
Top of casing survey data, per Piper Surveying, 2/9/16, Revised 7/23/18, per AECOM email 9-11-18
HMI equipped the site with HMI-owned dedicated bladder sampling pumps, March 2017; Sample intakes match previously-installed Hydrasleeves (pre-2017)
NP = No product (LNAPL), NA = Not applicable, NS = Not sampled, NM = Not measured, AG = At-Grade Surface Completion
* Uncorrected for the average density of the water column as a function of TDS
ACW-30S, ACW-30D, ACW-32S, and ACW-32D (installed in 2H18), were equipped with HMI-owned bladder sampling pumps in 4Q18; Sampling planned for 4Q (large) events ongoing, per El Paso

Table 1
Gauging Data and Groundwater Field Parameters

El Paso Natural Gas Company - Jal #4 Gas Plant
Lea County, New Mexico
June 18, 2019

Well I.D.	1,2,3Q # Wells Sampled	1,2,3Q # Wells Gauged	4Q # Wells Sampled	4Q # Wells Gauged	Ded. Blad Pump	Top of Casing Elev (ft-msl)	Depth to LNAPL (ft-toc)	Depth to Water (ft-toc)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	GW Elev* (ft-msl)	Water Column (ft)	Total Depth (ft-toc)	Stickup (ft)	Screen Interval (ft-bgs)	Sample Intake (ft-toc)	Casing Diam	pH (S.U.)	Temp. (C)	S.C. (umhos)	D.O. (mg/L)	ORP (mV)	Turbidity (NTU)	Water Clarity	Comments
ACW-01		1	1		Yes	3,302.15	NP	105.25	0.00	0.00	3,196.90	30.20	135.45	1.9	110-130	130.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-02A		2	2		Yes	3,302.16	NP	105.50	0.00	0.00	3,196.66	19.99	125.49	2.0	98-118	120.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-03		3		1	No	3,301.62	NP	105.12	0.00	0.00	3,196.50	30.00	135.12	1.6	112-132	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-04		4	3		Yes	3,302.05	NP	107.14	0.00	0.00	3,194.91	63.96	171.10	1.7	154-169	169.1	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-05		5	4		Yes	3,297.18	NP	103.11	0.00	0.00	3,194.07	14.26	117.37	1.5	105-115	114.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-06		6	5		Yes	3,302.84	NP	107.22	0.00	0.00	3,195.62	15.41	122.63	1.7	110-120	119.6	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-07		7	6		Yes	3,297.63	NP	102.26	0.00	0.00	3,195.37	15.13	117.39	1.5	105-115	114.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-08		8		2	No	3,299.54	NP	103.23	0.00	0.00	3,196.31	53.68	156.91	1.2	140-160	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-09		9	7		Yes	3,304.69	NP	110.06	0.00	0.00	3,194.63	52.42	162.48	2.4	140-160	159.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-10		10	8		Yes	3,299.82	NP	106.26	0.00	0.00	3,193.56	56.78	163.04	2.5	140-160	160.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-11		11	9		Yes	3,301.64	NP	105.61	0.00	0.00	3,196.03	56.07	161.68	2.1	140-161	159.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-12		12	10		Yes	3,301.80	NP	109.33	0.00	0.00	3,192.47	62.60	171.93	2.5	150-170	168.9	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-13	1		11		Yes	3,291.72	NP	99.29	0.00	0.00	3,192.43	76.33	175.62	2.0	153-173	172.6	4" PVC	7.14	22.2	1,267	3.8	99.8	6.4	Clear	
ACW-14	2		12		Yes	3,294.74	NP	100.26	0.00	0.00	3,194.48	75.96	176.22	2.0	157-177	173.2	4" PVC	7.07	23.1	747	3.8	96.4	1.3	Clear	Dup-01
ACW-15	3		13		Yes	3,292.75	NP	102.25	0.00	0.00	3,190.50	69.32	171.57	2.3	150-170	168.6	4" PVC	7.15	22.1	763	4.3	110.8	2.0	Clear	
ACW-16		13	14		Yes	3,307.89	NP	109.27	0.00	0.00	3,198.62	67.67	176.94	2.4	156-176	174.9	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-17		14	15		Yes	3,306.17	NP	108.34	0.00	0.00	3,197.83	63.44	171.78	2.6	151-171	169.8	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-18		15	16		Yes	3,303.15	NP	107.31	0.00	0.00	3,195.84	69.89	177.20	2.5	160-180	175.2	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-19		16	17		Yes	3,302.68	NP	106.21	0.00	0.00	3,196.47	14.95	121.16	2.2	98-118	119.2	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-20		17	18		Yes	3,303.50	NP	108.42	0.00	0.00	3,195.08	65.61	174.03	2.2	154-174	172.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-21		18	19		Yes	3,301.82	NP	105.73	0.00	0.00	3,196.09	14.79	120.52	2.1	98-118	118.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-22		19	20		Yes	3,306.24	NP	111.85	0.00	0.00	3,194.39	13.19	125.04	2.5	102-122	123.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-23		20	21		Yes	3,306.29	NP	111.95	0.00	0.00	3,194.34	57.76	169.71	2.3	147-167	167.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-24		21	22		Yes	3,305.56	NP	110.47	0.00	0.00	3,195.09	78.65	189.12	2.2	166-186	187.1	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-25		22	23		Yes	3,297.59	NP	103.25	0.00	0.00	3,194.34	71.43	174.68	2.1	151-171	172.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-30S		23	24		Yes	3,300.17	NP	104.46	0.00	0.00	3,195.71	18.04	122.50	2.3	95-120	117.5	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-30D		24	25		Yes	3,300.15	NP	104.77	0.00	0.00	3,195.38	82.66	187.43	2.3	165-185	177.4	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-32S		25	26		Yes	3,299.60	NP	106.99	0.00	0.00	3,192.61	15.34	122.33	2.5	95-120	117.3	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-32D		26	27		Yes	3,299.61	NP	106.96	0.00	0.00	3,192.65	65.68	172.64	2.5	150-170	162.6	3" PVC	NS	NS	NS	NS	NS	NS	NS	
Doom	4		28		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00	18.4	556	4.4	90.7	0.8	Clear	
ENSR-01		27	29		Yes	3,306.71	NP	107.63	0.00	0.00	3,199.08	47.72	155.35	1.6	123-148	150.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ENSR-03		28		3	No	3,305.05	NP	107.04	0.00	0.00	3,198.01	48.06	155.10	1.5	123-148	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
EPNG-01		29	30		Yes	3,310.03	NP	109.12	0.00	0.00	3,200.91	54.81	163.93	AG	120-160	160.9	6" Steel	NS	NS	NS	NS	NS	NS	NS	
OXY	5		31		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.86	21.1	1,263	3.7	-33.1	2.2	Clear	
PTP-01**		30	32		Yes	3,305.67	NP	107.61	0.00	0.00	3,198.06	NM	136.09	2.3	110-130	131.1	2" PVC	NS	NS	NS	NS	NS	NS	NS	
RW-01		31		4	No	3,302.16	NP	105.51	0.00	0.00	3,196.65	76.12	181.63	1.8	109-179	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-02		32		5	No	3,303.71	NP	109.25	0.00	0.00	3,194.46	64.40	173.65	1.4	105-175	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-03		33		6	No	3,302.65	NP	106.20	0.00	0.00	3,196.45	71.49	177.69	1.4	136.7-176.7	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-04		34		7	No	3,303.26	NP	108.50	0.00	0.00	3,194.76	67.66	176.16	1.6	154-174	NA	NA	NS	NS	NS	NS	NS	NS	NS	

Notes: Monitoring completed by HMI on behalf of El Paso Natural Gas Company
Gauging and groundwater sampling conducted June 18, 2019
Top of casing survey data, per Piper Surveying, 2/9/16, Revised 7/23/18, per AECOM email 9-11-18
HMI equipped the site with HMI-owned dedicated bladder sampling pumps, March 2017; Sample intakes match previously-installed Hydrasleeves (pre-2017)
NP = No product (LNAPL), NA = Not applicable, NS = Not sampled, NM = Not measured, AG = At-Grade Surface Completion
* Uncorrected for the average density of the water column as a function of TDS
ACW-30S, ACW-30D, ACW-32S, and ACW-32D (installed in 2H18), equipped with HMI-owned bladder sampling pumps; these wells to be sampled during 4Q (large) events ongoing, per El Paso

Table 1
Gauging Data and Groundwater Field Parameters

El Paso Natural Gas Company - Jal #4 Gas Plant
Lea County, New Mexico
September 10, 2019

Well I.D.	1,2,3Q # Wells Sampled	1,2,3Q # Wells Gauged	4Q # Wells Sampled	4Q # Wells Gauged	Ded. Blad Pump	Top of Casing Elev (ft-msl)	Depth to LNAPL (ft-toc)	Depth to Water (ft-toc)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	GW Elev* (ft-msl)	Water Column (ft)	Total Depth (ft-toc)	Stickup (ft)	Screen Interval (ft-bgs)	Sample Intake (ft-toc)	Casing Diam	pH (S.U.)	Temp. (C)	S.C. (umhos)	D.O. (mg/L)	ORP (mV)	Turbidity (NTU)	Water Clarity	Comments
ACW-01		1	1		Yes	3,302.15	NP	105.30	0.00	0.00	3,196.85	30.15	135.45	1.9	110-130	130.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-02A		2	2		Yes	3,302.16	NP	105.55	0.00	0.00	3,196.61	19.94	125.49	2.0	98-118	120.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-03		3		1	No	3,301.62	NP	105.14	0.00	0.00	3,196.48	29.98	135.12	1.6	112-132	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-04		4	3		Yes	3,302.05	NP	107.18	0.00	0.00	3,194.87	63.92	171.10	1.7	154-169	169.1	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-05		5	4		Yes	3,297.18	NP	103.11	0.00	0.00	3,194.07	14.26	117.37	1.5	105-115	114.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-06		6	5		Yes	3,302.84	NP	107.29	0.00	0.00	3,195.55	15.34	122.63	1.7	110-120	119.6	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-07		7	6		Yes	3,297.63	NP	102.28	0.00	0.00	3,195.35	15.11	117.39	1.5	105-115	114.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-08		8		2	No	3,299.54	NP	103.26	0.00	0.00	3,196.28	53.65	156.91	1.2	140-160	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-09		9	7		Yes	3,304.69	NP	110.20	0.00	0.00	3,194.49	52.28	162.48	2.4	140-160	159.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-10		10	8		Yes	3,299.82	NP	106.31	0.00	0.00	3,193.51	56.73	163.04	2.5	140-160	160.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-11		11	9		Yes	3,301.64	NP	105.67	0.00	0.00	3,195.97	56.01	161.68	2.1	140-161	159.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-12		12	10		Yes	3,301.80	NP	109.37	0.00	0.00	3,192.43	62.56	171.93	2.5	150-170	168.9	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-13	1		11		Yes	3,291.72	NP	99.32	0.00	0.00	3,192.40	76.30	175.62	2.0	153-173	172.6	4" PVC	6.53	21.4	1,659	4.5	133.8	3.6	Clear	
ACW-14	2		12		Yes	3,294.74	NP	100.31	0.00	0.00	3,194.43	75.91	176.22	2.0	157-177	173.2	4" PVC	7.03	22.2	669	4.9	149.7	2.3	Clear	Dup-01
ACW-15	3		13		Yes	3,292.75	NP	102.28	0.00	0.00	3,190.47	69.29	171.57	2.3	150-170	168.6	4" PVC	6.58	20.9	822	4.4	155.8	2.7	Clear	
ACW-16		13	14		Yes	3,307.89	NP	109.34	0.00	0.00	3,198.55	67.60	176.94	2.4	156-176	174.9	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-17		14	15		Yes	3,306.17	NP	108.40	0.00	0.00	3,197.77	63.38	171.78	2.6	151-171	169.8	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-18		15	16		Yes	3,303.15	NP	107.37	0.00	0.00	3,195.78	69.83	177.20	2.5	160-180	175.2	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-19		16	17		Yes	3,302.68	NP	106.24	0.00	0.00	3,196.44	14.92	121.16	2.2	98-118	119.2	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-20		17	18		Yes	3,303.50	NP	108.44	0.00	0.00	3,195.06	65.59	174.03	2.2	154-174	172.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-21		18	19		Yes	3,301.82	NP	105.76	0.00	0.00	3,196.06	14.76	120.52	2.1	98-118	118.5	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-22		19	20		Yes	3,306.24	NP	111.87	0.00	0.00	3,194.37	13.17	125.04	2.5	102-122	123.0	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-23		20	21		Yes	3,306.29	NP	111.99	0.00	0.00	3,194.30	57.72	169.71	2.3	147-167	167.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-24		21	22		Yes	3,305.56	NP	110.50	0.00	0.00	3,195.06	78.62	189.12	2.2	166-186	187.1	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-25		22	23		Yes	3,297.59	NP	103.30	0.00	0.00	3,194.29	71.38	174.68	2.1	151-171	172.7	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-30S		23	24		Yes	3,300.17	NP	104.49	0.00	0.00	3,195.68	18.01	122.50	2.3	95-120	117.5	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-30D		24	25		Yes	3,300.15	NP	104.80	0.00	0.00	3,195.35	82.63	187.43	2.3	165-185	177.4	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-32S		25	26		Yes	3,299.60	NP	107.00	0.00	0.00	3,192.60	15.33	122.33	2.5	95-120	117.3	3" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-32D		26	27		Yes	3,299.61	NP	107.01	0.00	0.00	3,192.60	65.63	172.64	2.5	150-170	162.6	3" PVC	NS	NS	NS	NS	NS	NS	NS	
Doom	4		28		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.90	22.4	516	4.4	12.6	1.1	Clear	
ENSR-01		27	29		Yes	3,306.71	NP	107.67	0.00	0.00	3,199.04	47.68	155.35	1.6	123-148	150.4	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ENSR-03		28		3	No	3,305.05	NP	107.10	0.00	0.00	3,197.95	48.00	155.10	1.5	123-148	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
EPNG-01		29	30		Yes	3,310.03	NP	109.27	0.00	0.00	3,200.76	54.66	163.93	AG	120-160	160.9	6" Steel	NS	NS	NS	NS	NS	NS	NS	
OXY	5		31		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.83	22.9	1,252	3.2	-57.7	2.6	Clear	
PTP-01**		30	32		Yes	3,305.67	NP	107.68	0.00	0.00	3,197.99	NM	136.09	2.3	110-130	131.1	2" PVC	NS	NS	NS	NS	NS	NS	NS	
RW-01		31		4	No	3,302.16	NP	105.55	0.00	0.00	3,196.61	76.08	181.63	1.8	109-179	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-02		32		5	No	3,303.71	NP	109.27	0.00	0.00	3,194.44	64.38	173.65	1.4	105-175	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-03		33		6	No	3,302.65	NP	106.25	0.00	0.00	3,196.40	71.44	177.69	1.4	136.7-176.7	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-04		34		7	No	3,303.26	NP	108.51	0.00	0.00	3,194.75	67.65	176.16	1.6	154-174	NA	NA	NS	NS	NS	NS	NS	NS	NS	

Notes: Monitoring completed by HMI on behalf of El Paso Natural Gas Company
Gauging and groundwater sampling conducted June 18, 2019
Top of casing survey data, per Piper Surveying, 2/9/16, Revised 7/23/18, per AECOM email 9-11-18
HMI equipped the site with HMI-owned dedicated bladder sampling pumps, March 2017; Sample intakes match previously-installed Hydrasleeves (pre-2017)
NP = No product (LNAPL), NA = Not applicable, NS = Not sampled, NM = Not measured, AG = At-Grade Surface Completion
* Uncorrected for the average density of the water column as a function of TDS
ACW-30S, ACW-30D, ACW-32S, and ACW-32D (installed in 2H18), equipped with HMI-owned bladder sampling pumps; these wells to be sampled during 4Q (large) events ongoing, per El Paso

Table 1
Gauging Data and Groundwater Field Parameters

El Paso Natural Gas Company - Jal #4 Gas Plant
Lea County, New Mexico
December 18, 2019

Well I.D.	1,2,3Q	1,2,3Q	4Q	4Q	Ded. Blad Pump	Top of Casing Elev (ft-msl)	Depth to LNAPL (ft-toc)	Depth to Water (ft-toc)	LNAPL Thickness (ft)	DNAPL Thickness (ft)	GW Elev* (ft-msl)	Water Column (ft)	Total Depth (ft-toc)	Stickup (ft)	Screen Interval (ft-bgs)	Sample Intake (ft-toc)	Casing Diam	pH (S.U.)	Temp. (C)	S.C. (umhos)	D.O. (mg/L)	ORP (mV)	Turbidity (NTU)	Water Clarity	Comments
	# Wells Sampled	# Wells Gauged	# Wells Sampled	# Wells Gauged																					
ACW-01		1	1		Yes	3,302.15	NP	105.16	0.00	0.00	3,196.99	30.29	135.45	1.9	110-130	130.5	4" PVC	8.34	19.0	19,400	1.1	-225.0	1.6	Clear	
ACW-02A		2	2		Yes	3,302.16	NP	105.45	0.00	0.00	3,196.71	20.04	125.49	2.0	98-118	120.5	4" PVC	10.06	19.4	13,690	1.1	-288.4	1.5	Clear	
ACW-03		3		1	No	3,301.62	NP	105.10	0.00	0.00	3,196.52	30.02	135.12	1.6	112-132	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-04		4	3		Yes	3,302.05	NP	107.02	0.00	0.00	3,195.03	64.08	171.10	1.7	154-169	169.1	4" PVC	6.92	18.9	117,500	3.3	-163.8	2.4	Clear	
ACW-05		5	4		Yes	3,297.18	NP	103.07	0.00	0.00	3,194.11	14.30	117.37	1.5	105-115	114.4	4" PVC	6.20	19.0	6,960	1.0	-134.2	7.9	Clear	
ACW-06		6	5		Yes	3,302.84	NP	107.22	0.00	0.00	3,195.62	15.41	122.63	1.7	110-120	119.6	4" PVC	8.99	18.8	5,110	1.7	-252.5	4.9	Clear	
ACW-07		7	6		Yes	3,297.63	NP	102.20	0.00	0.00	3,195.43	15.19	117.39	1.5	105-115	114.4	4" PVC	7.08	18.5	8,410	1.5	-190.3	2.8	Clear	
ACW-08		8		2	No	3,299.54	NP	103.20	0.00	0.00	3,196.34	53.40	156.60	1.2	140-160	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
ACW-09		9	7		Yes	3,304.69	NP	110.14	0.00	0.00	3,194.55	52.34	162.48	2.4	140-160	159.5	4" PVC	6.43	18.7	25,400	2.2	-97.9	1.6	Clear	
ACW-10		10	8		Yes	3,299.82	NP	106.24	0.00	0.00	3,193.58	56.80	163.04	2.5	140-160	160.0	4" PVC	6.79	19.5	6,630	1.6	78.7	7.3	Clear	
ACW-11		11	9		Yes	3,301.64	NP	105.55	0.00	0.00	3,196.09	56.13	161.68	2.1	140-161	159.7	4" PVC	6.30	19.1	41,600	1.1	68.2	6.1	Clear	
ACW-12		12	10		Yes	3,301.80	NP	109.31	0.00	0.00	3,192.49	62.62	171.93	2.5	150-170	168.9	4" PVC	6.70	19.0	5,690	1.9	-103.5	5.0	Clear	
ACW-13	1		11		Yes	3,291.72	NP	99.24	0.00	0.00	3,192.48	76.38	175.62	2.0	153-173	172.6	4" PVC	7.07	18.5	2,360	5.0	38.4	3.0	Clear	
ACW-14	2		12		Yes	3,294.74	NP	100.22	0.00	0.00	3,194.52	76.00	176.22	2.0	157-177	173.2	4" PVC	7.35	19.1	870	3.4	58.3	3.0	Clear	
ACW-15	3		13		Yes	3,292.75	NP	102.25	0.00	0.00	3,190.50	69.32	171.57	2.3	150-170	168.6	4" PVC	7.33	18.9	995	4.1	37.8	5.1	Clear	
ACW-16		13	14		Yes	3,307.89	NP	109.30	0.00	0.00	3,198.59	67.64	176.94	2.4	156-176	174.9	4" PVC	7.25	19.2	30,100	1.4	-184.0	1.6	Clear	
ACW-17		14	15		Yes	3,306.17	NP	108.36	0.00	0.00	3,197.81	63.42	171.78	2.6	151-171	169.8	4" PVC	6.94	21.8	15,140	0.9	-70.2	9.3	Clear	
ACW-18		15	16		Yes	3,303.15	NP	107.25	0.00	0.00	3,195.90	69.95	177.20	2.5	160-180	175.2	4" PVC	6.89	18.5	120,000	1.4	-56.9	2.1	Clear	
ACW-19		16	17		Yes	3,302.68	NP	106.16	0.00	0.00	3,196.52	15.00	121.16	2.2	98-118	119.2	4" PVC	7.06	21.7	5,570	1.0	-103.8	4.8	Clear	
ACW-20		17	18		Yes	3,303.50	NP	108.38	0.00	0.00	3,195.12	65.65	174.03	2.2	154-174	172.0	4" PVC	6.40	20.7	148,600	1.0	18.0	8.0	Clear	
ACW-21		18	19		Yes	3,301.82	NP	105.76	0.00	0.00	3,196.06	14.76	120.52	2.1	98-118	118.5	4" PVC	7.07	18.7	3,950	1.4	-88.2	4.8	Clear	
ACW-22		19	20		Yes	3,306.24	NP	111.81	0.00	0.00	3,194.43	13.23	125.04	2.5	102-122	123.0	4" PVC	6.99	18.4	2,110	2.3	-51.1	5.1	Clear	
ACW-23		20	21		Yes	3,306.29	NP	111.94	0.00	0.00	3,194.35	57.77	169.71	2.3	147-167	167.7	4" PVC	6.99	18.8	2,870	1.4	-98.0	2.4	Clear	
ACW-24		21	22		Yes	3,305.56	NP	110.64	0.00	0.00	3,194.92	78.48	189.12	2.2	166-186	187.1	4" PVC	6.17	18.7	84,700	1.7	-29.2	2.7	Clear	
ACW-25		22	23		Yes	3,297.59	NP	103.21	0.00	0.00	3,194.38	71.47	174.68	2.1	151-171	172.7	4" PVC	6.59	18.8	37,700	0.8	-159.2	4.7	Clear	
ACW-26		23	24		Yes	3,309.27	NP	110.43	0.00	0.00	3,198.84	20.17	130.60	1.6	95-120	125.6	4"PVC	7.82	19.2	1,027	4.2	-32.8	9.8	Clear	Dup-01
ACW-27		24	25		Yes	3,309.22	NP	110.39	0.00	0.00	3,198.83	66.81	177.20	1.8	160-180	167.2	4"PVC	7.00	19.1	3,323	3.3	4.6	5.6	Clear	Dup-02
ACW-28		25	26		Yes	3,306.49	NP	109.05	0.00	0.00	3,197.44	19.25	128.30	1.8	95-120	123.3	4"PVC	7.39	19.9	790	2.7	122.7	59.0	Clear	Dup-03
ACW-29		26	27		Yes	3,306.35	NP	108.88	0.00	0.00	3,197.47	67.91	176.79	1.8	160-180	166.8	4"PVC	7.44	17.7	804	2.4	50.7	2.4	Clear	Dup-04
ACW-30S		27	28		Yes	3,300.17	NP	104.52	0.00	0.00	3,195.65	17.98	122.50	2.3	95-120	117.5	3" PVC	7.44	16.7	1,720	1.8	132.2	4.9	Clear	
ACW-30D		28	29		Yes	3,300.15	NP	104.76	0.00	0.00	3,195.39	82.67	187.43	2.3	165-185	177.4	3" PVC	6.63	17.5	26,800	1.7	-42.8	7.5	Clear	
ACW-32S		29	30		Yes	3,299.60	NP	107.04	0.00	0.00	3,192.56	15.29	122.33	2.5	95-120	117.3	3" PVC	11.38	17.5	3,500	2.1	-113.6	4.8	Clear	
ACW-32D		30	31		Yes	3,299.61	NP	106.97	0.00	0.00	3,192.64	65.67	172.64	2.5	150-170	162.6	3" PVC	7.51	18.3	2,160	2.2	-142.1	24.4	Clear	
Doom	4		32		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.83	11.7	434	3.5	-35.2	0.9	Clear	
ENSR-01		31	33		Yes	3,306.71	NP	107.63	0.00	0.00	3,199.08	47.72	155.35	1.6	123-148	150.4	4" PVC	7.02	19.9	22,500	1.4	-124.4	1.2	Clear	
ENSR-03		32		3	No	3,305.05	NP	107.00	0.00	0.00	3,198.05	48.10	155.10	1.5	123-148	NA	4" PVC	NS	NS	NS	NS	NS	NS	NS	
EPNG-01		33	34		Yes	3,310.03	NP	109.16	0.00	0.00	3,200.87	54.77	163.93	AG	120-160	160.9	6" Steel	7.09	18.4	1,049	3.7	-198.6	3.1	Clear	
OXY	5		35		No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.51	15.0	1,224	4.9	-48.3	2.0	Clear	
PTP-01**		34	36		Yes	3,305.67	NP	107.59	0.00	0.00	3,198.08	NM	136.09	2.3	110-130	131.1	2" PVC	7.00	22.7	2,200	0.9	-88.2	3.0	Clear	
RW-01		35		4	No	3,302.16	NP	105.42	0.00	0.00	3,196.74	76.21	181.63	1.8	109-179	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-02		36		5	No	3,303.71	NP	109.19	0.00	0.00	3,194.52	64.46	173.65	1.4	105-175	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-03		37		6	No	3,302.65	NP	106.16	0.00	0.00	3,196.49	71.53	177.69	1.4	136.7-176.7	NA	NA	NS	NS	NS	NS	NS	NS	NS	
RW-04		38		7	No	3,303.26	NP	108.46	0.00	0.00	3,194.80	67.70	176.16	1.6	154-174	NA	NA	NS	NS	NS	NS	NS	NS	NS	

Notes: Monitoring completed by HMI on behalf of El Paso Natural Gas Company
Gauging and groundwater sampling conducted December 18, 2019
Top of casing survey data, per Piper Surveying, 2/9/16, Revised 7/23/18, per AECOM email 9-11-18
NP = No product (LNAPL), NA = Not applicable, NS = Not sampled, NM = Not measured, AG = At-Grade Surface Completion
ACW-30S, ACW-30D, ACW-32S, and ACW-32D (installed in 2H18), equipped with HMI-owned bladder sampling pumps; these wells to be sampled during 4Q (large) events ongoing, per El Paso
ACW-26, ACW-27, ACW-28, and ACW-29 (installed in 2H19), equipped with HMI-owned bladder sampling pumps; these wells to be sampled during 4Q (large) events ongoing, per El Paso
* GW elevation data uncorrected for ave. density of water column as a function of TDS
** 1Q17, a Hydrasleeve/rope assembly was found wedged in PTP-01 well casing @ 80 ft; HMI cleared blockage with steel cable & winch; dedicated bladder pump installed 2Q17, per El Paso

**Hydrologic Monitoring**

1654 W. Sam Houston Pkwy. N.
Houston, Texas 77043

Phone 713.464.5206

Fax 713.464.5207

December 23, 2019

Mr. Wally Gilmore, P.G.
AECOM
19219 Katy Freeway, Suite 100
Houston, Texas 77094

Subject: 4Q19 Groundwater Monitoring, December 18, 2019
Jal #4 Gas Plant, Jal, New Mexico

Dear Mr. Gilmore:

This document summarizes groundwater monitoring field activities conducted by HMI on behalf of El Paso Natural Gas Company and AECOM at the Jal #4 Gas Plant.

Contents

Field Activities Narrative

Table 1: Gauging Data and Groundwater Field Parameters, December 18, 2019

Groundwater Sampling Forms and Field Instrument Calibration Record

Chain-of-Custody Form

El Paso ARF

Groundwater Sampling SOP

Field Activities Narrative

1. HMI equipped the sampled-well network with HMI-owned dedicated bladder pumps in 2017. Two well nests were installed in 2H18 (ACW-30S & ACW30D and ACW-32S & ACW-32D). Two additional well nests (ACW-26 & 27 and ACW-28 & 29) were installed in 2H19 (ACW-26 is a “shallow” well & ACW-27 is a “deep” well; and ACW-28 is a “shallow” well & ACW-29 is a “deep” well). HMI equips all sampled wells with HMI-owned dedicated bladder pumps. HMI respectfully requests the opportunity to retrieve these pumps when HMI’s monitoring obligations are completed at the site.
2. Sitewide gauging and groundwater sampling was conducted December 18, 2019.
3. Groundwater sampling was conducted in accordance with EPA guidelines (Puls and Barcelona, 1996 EPA Guidance on Low-Flow Groundwater Sampling, REV 4, September 19, 2017), and the attached Groundwater Sampling SOP. Low-flow purging was conducted at EPA-recommended purge rates of 0.1 - 0.2 liters/minute. Field parameters of pH, specific conductivity, temperature, dissolved oxygen, and oxidation-reduction potential were monitored at ½-liter intervals in an air-tight flow-through cell. Turbidity was measured outside the cell. Well drawdown was monitored at the same intervals. Upon field parameter stabilization, the water input tube was disconnected from the flow-through cell and groundwater samples were collected directly into lab-supplied bottles, which were placed in iced coolers. The groundwater sampling process is documented on the attached groundwater sampling forms.
4. Additionally, two (2) water supply wells (OXY Well & Doom Well) were sampled.
5. Field QA/QC Sampling:
 - Dup-01 @ ACW-26 (all parameters)
 - Dup-02 @ ACW-27 (all parameters)
 - Dup-03 @ ACW-28 (all parameters)
 - Dup-04 @ ACW-29 (all parameters)
 - Trip Blank (BTEX)
6. Samples were shipped FedEx to Eurofins Test America-Houston, for analysis per the attached COC. Proper chain-of-custody was maintained.

Analytical scope prior to 4Q19, per AECOM:

BTEX
TDS, Chloride, Conductivity
Sodium

Analytical scope requested for 4Q19 event, per AECOM:

BTEX
TDS, Conductivity
Sodium, Calcium, Magnesium, Potassium (EPA Method 6010)
Chloride, Sulfate (EPA Method 300.0)
Bicarbonate and Carbonate Alkalinity (General Chemistry Methods)

7. Purgewater transferred to lined, southern-most brine pond, per site instruction.
8. Site notes:

Facility Manager (Ken Parker or mgr.) to be notified by AECOM prior to routine sampling events, also, El Paso to notify Oxy's Dusty Wilson, per note:

Contact for Oxy regarding their field station where we sample the water well. There have been on and off very low exceedances of the 250 mg/l New Mexico standard for chlorides and I needed to notify them. The contact, Dusty Wilson, indicated that personnel who enter that facility must have H2S training and have an H2S monitor operating. Mr. Wilson stated there is a significant amount of H2S associated with the tank battery. He also indicated they would like a few days prior notice so they know who is coming and going out there, so if you can email me with the scheduled sample dates as they come along I will pass that along to Dusty.

Thanks,

Joseph (Joe) Wiley, P.G.
Project Manager - Pipeline Remediation
Kinder Morgan, Inc.
1001 Louisiana Street, Room 757A
Houston, TX 77002
Phone: 713-420-3475
Cell Phone: 832-279-1610
Joe_wiley@kindermorgan.com

Site Contact: Bill Evans (575-441-4101); Jal Police Phone No. on JHA, per Mr. Evans (575-395-2501).

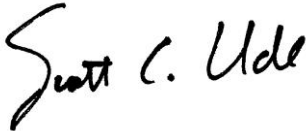
Monitor well lock keys are maintained in HMI's files.

OXY Well is sampled via outdoor spigot; Doom Well is sampled via spigot inside the well shed, on Mr. Dylan Doom's ranch (follow driveway into ranch, then down to the left, shed is on the right).

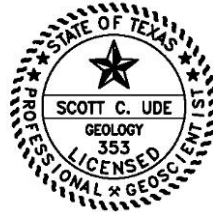
HMI appreciates the opportunity to assist El Paso Natural Gas Company and AECOM with this project. If you have any questions or require additional information please feel free to call us at 713.464.5206.

Sincerely,

HYDROLOGIC MONITORING



Scott C. Ude, P.G.



The seal appearing on this document was authorized by Scott C. Ude, P.G. 353 on December 23, 2019.

Attachments

cc: Joe Wiley, P.G., El Paso Natural Gas Company
Scott Duncan, HMI

Appendix C

Laboratory Analytical Reports

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-181545-1

Client Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

For:

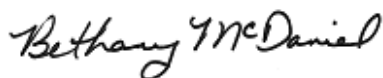
AECOM

19219 Katy Freeway

Suite 100

Houston, Texas 77094

Attn: Mr. Wallace Gilmore



Authorized for release by:

3/20/2019 8:59:08 PM

Bethany McDaniel, Senior Project Manager

(713)358-2005

bethany.mcdaniel@testamericainc.com

LINKS

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results through

TotalAccess

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www.testamericainc.com

The test results in this report meet all 2003 NELAP and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Case Narrative

Client: AECOM
Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

TestAmerica Job ID: 600-181545-1

Job ID: 600-181545-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-181545-1

Comments

No additional comments.

Receipt

The samples were received on 3/6/2019 9:49 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1° C.

GC/MS VOA

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

Method(s) 300.0: Samples ACW-13 (600-181545-1), ACW-14 (600-181545-2), ACW-15 (600-181545-3), Oxy Well (600-181545-5) and Dup-01 (600-181545-6) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 300.0: The method blank for analytical batch 600-260545 contained chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries of sample Doom Well(600-181545-4) for analytical batch 600-260669 were low outside control limits for chloride. Sample matrix interference and/or non-homogeneity are suspected.

Method(s) 2540C: Total Dissolved Solids exceeded the RPD limit for the duplicate of sample ACW-14(600-181545-2). Sample matrix interference and/or non-homogeneity are suspected.

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

Method Summary

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
6010B	Inductively Coupled Plasma - Atomic Emission Spectrometry	SW846	TAL HOU
120.1	Conductivity, Specific Conductance	MCAWW	TAL HOU
2540 C-1997	Total Dissolved Solids (Dried at 180 °C)	SM	TAL HOU
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

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 HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-181545-1	ACW-13	Water	03/05/19 10:35	03/06/19 09:49
600-181545-2	ACW-14	Water	03/05/19 12:25	03/06/19 09:49
600-181545-3	ACW-15	Water	03/05/19 11:40	03/06/19 09:49
600-181545-4	Doom Well	Water	03/05/19 12:35	03/06/19 09:49
600-181545-5	Oxy Well	Water	03/05/19 11:55	03/06/19 09:49
600-181545-6	Dup-01	Water	03/05/19 08:00	03/06/19 09:49
600-181545-7	TRIP BLANK	Water	03/05/19 00:00	03/06/19 09:49

Client Sample Results

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Client Sample ID: ACW-13

Lab Sample ID: 600-181545-1

Date Collected: 03/05/19 10:35

Matrix: Water

Date Received: 03/06/19 09:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L	-		03/06/19 15:33	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L	-		03/06/19 15:33	1
Toluene	<0.00100		0.00100	0.000198	mg/L	-		03/06/19 15:33	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L	-		03/06/19 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		03/06/19 15:33	1
4-Bromofluorobenzene	122		67 - 139		03/06/19 15:33	1
Dibromofluoromethane	90		62 - 130		03/06/19 15:33	1
Toluene-d8 (Surr)	92		70 - 130		03/06/19 15:33	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	575		8.00	1.07	mg/L	-		03/16/19 23:09	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	154		1.00	0.0214	mg/L	-	03/14/19 09:43	03/15/19 12:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1790		2.00	1.31	umhos/cm	-		03/11/19 15:41	1
Total Dissolved Solids	1900		20.0	20.0	mg/L	-		03/07/19 15:04	1

Client Sample ID: ACW-14

Lab Sample ID: 600-181545-2

Date Collected: 03/05/19 12:25

Matrix: Water

Date Received: 03/06/19 09:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L	-		03/06/19 15:59	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L	-		03/06/19 15:59	1
Toluene	<0.00100		0.00100	0.000198	mg/L	-		03/06/19 15:59	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L	-		03/06/19 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		03/06/19 15:59	1
4-Bromofluorobenzene	124		67 - 139		03/06/19 15:59	1
Dibromofluoromethane	93		62 - 130		03/06/19 15:59	1
Toluene-d8 (Surr)	93		70 - 130		03/06/19 15:59	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		2.00	0.267	mg/L	-		03/16/19 23:29	5

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	107		1.00	0.0214	mg/L	-	03/14/19 09:43	03/15/19 12:35	1

TestAmerica Houston

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

TestAmerica Job ID: 600-181545-1

Client Sample ID: ACW-14

Date Collected: 03/05/19 12:25

Date Received: 03/06/19 09:49

Lab Sample ID: 600-181545-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	889		2.00	1.31	umhos/cm			03/11/19 15:41	1
Total Dissolved Solids	692		20.0	20.0	mg/L			03/07/19 15:04	1

Client Sample ID: ACW-15

Date Collected: 03/05/19 11:40

Date Received: 03/06/19 09:49

Lab Sample ID: 600-181545-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L			03/06/19 16:24	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L			03/06/19 16:24	1
Toluene	<0.00100		0.00100	0.000198	mg/L			03/06/19 16:24	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L			03/06/19 16:24	1

Surrogate

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		03/06/19 16:24	1
4-Bromofluorobenzene	123		67 - 139		03/06/19 16:24	1
Dibromofluoromethane	94		62 - 130		03/06/19 16:24	1
Toluene-d8 (Surr)	92		70 - 130		03/06/19 16:24	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		4.00	0.534	mg/L			03/19/19 17:33	10

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	99.5		1.00	0.0214	mg/L		03/14/19 09:43	03/15/19 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1040		2.00	1.31	umhos/cm			03/11/19 15:41	1
Total Dissolved Solids	652		20.0	20.0	mg/L			03/07/19 15:04	1

Client Sample ID: Doom Well

Date Collected: 03/05/19 12:35

Date Received: 03/06/19 09:49

Lab Sample ID: 600-181545-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L			03/06/19 16:50	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L			03/06/19 16:50	1
Toluene	<0.00100		0.00100	0.000198	mg/L			03/06/19 16:50	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L			03/06/19 16:50	1

Surrogate

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		03/06/19 16:50	1
4-Bromofluorobenzene	122		67 - 139		03/06/19 16:50	1
Dibromofluoromethane	83		62 - 130		03/06/19 16:50	1
Toluene-d8 (Surr)	92		70 - 130		03/06/19 16:50	1

TestAmerica Houston

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

TestAmerica Job ID: 600-181545-1

Client Sample ID: Doom Well

Lab Sample ID: 600-181545-4

Date Collected: 03/05/19 12:35

Matrix: Water

Date Received: 03/06/19 09:49

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.4	F1	0.400	0.0534	mg/L	-		03/19/19 17:53	1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	66.6		1.00	0.0214	mg/L	-	03/14/19 09:43	03/15/19 12:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	607		2.00	1.31	umhos/cm	-		03/11/19 15:41	1
Total Dissolved Solids	371		10.0	10.0	mg/L	-		03/07/19 15:04	1

Client Sample ID: Oxy Well

Lab Sample ID: 600-181545-5

Date Collected: 03/05/19 11:55

Matrix: Water

Date Received: 03/06/19 09:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L	-		03/06/19 17:15	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L	-		03/06/19 17:15	1
Toluene	<0.00100		0.00100	0.000198	mg/L	-		03/06/19 17:15	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L	-		03/06/19 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		03/06/19 17:15	1
4-Bromofluorobenzene	125		67 - 139		03/06/19 17:15	1
Dibromofluoromethane	89		62 - 130		03/06/19 17:15	1
Toluene-d8 (Surr)	95		70 - 130		03/06/19 17:15	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	254		4.00	0.534	mg/L	-		03/19/19 18:53	10

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	106		1.00	0.0214	mg/L	-	03/14/19 09:43	03/15/19 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1310		2.00	1.31	umhos/cm	-		03/11/19 15:41	1
Total Dissolved Solids	864		20.0	20.0	mg/L	-		03/07/19 15:04	1

Client Sample ID: Dup-01

Lab Sample ID: 600-181545-6

Date Collected: 03/05/19 08:00

Matrix: Water

Date Received: 03/06/19 09:49

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L	-		03/06/19 17:40	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L	-		03/06/19 17:40	1
Toluene	<0.00100		0.00100	0.000198	mg/L	-		03/06/19 17:40	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L	-		03/06/19 17:40	1

TestAmerica Houston

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

TestAmerica Job ID: 600-181545-1

Client Sample ID: Dup-01

Date Collected: 03/05/19 08:00

Date Received: 03/06/19 09:49

Lab Sample ID: 600-181545-6

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		03/06/19 17:40	1
4-Bromofluorobenzene	129		67 - 139		03/06/19 17:40	1
Dibromofluoromethane	85		62 - 130		03/06/19 17:40	1
Toluene-d8 (Surr)	97		70 - 130		03/06/19 17:40	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		2.00	0.267	mg/L			03/19/19 19:13	5

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	108		1.00	0.0214	mg/L		03/14/19 09:43	03/15/19 12:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	923		2.00	1.31	umhos/cm			03/11/19 15:44	1
Total Dissolved Solids	570		10.0	10.0	mg/L			03/07/19 15:04	1

Client Sample ID: TRIP BLANK

Date Collected: 03/05/19 00:00

Date Received: 03/06/19 09:49

Lab Sample ID: 600-181545-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L			03/06/19 14:42	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L			03/06/19 14:42	1
Toluene	<0.00100		0.00100	0.000198	mg/L			03/06/19 14:42	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L			03/06/19 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		03/06/19 14:42	1
4-Bromofluorobenzene	123		67 - 139		03/06/19 14:42	1
Dibromofluoromethane	87		62 - 130		03/06/19 14:42	1
Toluene-d8 (Surr)	91		70 - 130		03/06/19 14:42	1

TestAmerica Houston

Definitions/Glossary

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
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F1	MS and/or MSD Recovery is outside acceptance limits.
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General Chemistry

Qualifier	Qualifier Description
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F3	Duplicate RPD exceeds the control limit
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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Surrogate Summary

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-181545-1	ACW-13	85	122	90	92
600-181545-2	ACW-14	83	124	93	93
600-181545-3	ACW-15	86	123	94	92
600-181545-4	Doom Well	78	122	83	92
600-181545-5	Oxy Well	83	125	89	95
600-181545-6	Dup-01	84	129	85	97
600-181545-7	TRIP BLANK	80	123	87	91
LCS 600-259828/3	Lab Control Sample	81	125	86	93
LCSD 600-259828/4	Lab Control Sample Dup	73	125	87	91
MB 600-259828/6	Method Blank	83	122	88	92

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

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

Lab Sample ID: MB 600-259828/6

Matrix: Water

Analysis Batch: 259828

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00100		0.00100	0.000176	mg/L			03/06/19 14:16	1
Ethylbenzene	<0.00100		0.00100	0.000212	mg/L			03/06/19 14:16	1
Toluene	<0.00100		0.00100	0.000198	mg/L			03/06/19 14:16	1
Xylenes, Total	<0.00200		0.00200	0.000366	mg/L			03/06/19 14:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		03/06/19 14:16	1
4-Bromofluorobenzene	122		67 - 139		03/06/19 14:16	1
Dibromofluoromethane	88		62 - 130		03/06/19 14:16	1
Toluene-d8 (Surr)	92		70 - 130		03/06/19 14:16	1

Lab Sample ID: LCS 600-259828/3

Matrix: Water

Analysis Batch: 259828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.009613		mg/L		96	70 - 130
Ethylbenzene	0.0100	0.009671		mg/L		97	70 - 130
Toluene	0.0100	0.009461		mg/L		95	70 - 130
Xylenes, Total	0.0200	0.01939		mg/L		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		50 - 134
4-Bromofluorobenzene	125		67 - 139
Dibromofluoromethane	86		62 - 130
Toluene-d8 (Surr)	93		70 - 130

Lab Sample ID: LCSD 600-259828/4

Matrix: Water

Analysis Batch: 259828

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	0.0100	0.009334		mg/L		93	70 - 130	3	20
Ethylbenzene	0.0100	0.009402		mg/L		94	70 - 130	3	20
Toluene	0.0100	0.009091		mg/L		91	70 - 130	4	20
Xylenes, Total	0.0200	0.01877		mg/L		94	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	73		50 - 134
4-Bromofluorobenzene	125		67 - 139
Dibromofluoromethane	87		62 - 130
Toluene-d8 (Surr)	91		70 - 130

TestAmerica Houston

QC Sample Results

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-260545/4

Matrix: Water

Analysis Batch: 260545

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.400		0.400	0.0534	mg/L			03/16/19 13:29	1

Lab Sample ID: LCS 600-260545/5

Matrix: Water

Analysis Batch: 260545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.04		mg/L		100	90 - 110

Lab Sample ID: MB 600-260669/4

Matrix: Water

Analysis Batch: 260669

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.400		0.400	0.0534	mg/L			03/19/19 12:33	1

Lab Sample ID: LCS 600-260669/5

Matrix: Water

Analysis Batch: 260669

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.07		mg/L		100	90 - 110

Lab Sample ID: 600-181545-4 MS

Matrix: Water

Analysis Batch: 260669

Client Sample ID: Doom Well

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	31.4	F1	10.0	38.02	F1	mg/L		67	80 - 120

Lab Sample ID: 600-181545-4 MSD

Matrix: Water

Analysis Batch: 260669

Client Sample ID: Doom Well

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	31.4	F1	10.0	38.18	F1	mg/L		68	80 - 120	0	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Lab Sample ID: MB 600-260396/1-A

Matrix: Water

Analysis Batch: 260501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 260396

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<1.00		1.00	0.0214	mg/L		03/14/19 09:43	03/15/19 12:12	1

TestAmerica Houston

QC Sample Results

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Lab Sample ID: LCS 600-260396/2-A

Matrix: Water

Analysis Batch: 260501

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 260396

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	10.0	10.98		mg/L		110	80 - 120

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 600-260168/1

Matrix: Water

Analysis Batch: 260168

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.00		2.00	1.31	umhos/cm			03/11/19 15:41	1

Lab Sample ID: LCS 600-260168/2

Matrix: Water

Analysis Batch: 260168

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	9.270		umhos/cm		93	90 - 110

Lab Sample ID: 600-181545-2 DU

Matrix: Water

Analysis Batch: 260168

Client Sample ID: ACW-14

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	889		918.0		umhos/cm		3	20

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 600-259971/1

Matrix: Water

Analysis Batch: 259971

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			03/07/19 15:04	1

Lab Sample ID: LCS 600-259971/2

Matrix: Water

Analysis Batch: 259971

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1919		mg/L		107	90 - 110

Lab Sample ID: 600-181545-2 DU

Matrix: Water

Analysis Batch: 259971

Client Sample ID: ACW-14

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	692		345.3	F3	mg/L		67	10

TestAmerica Houston

QC Association Summary

Client: AECOM

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

TestAmerica Job ID: 600-181545-1

GC/MS VOA

Analysis Batch: 259828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-1	ACW-13	Total/NA	Water	8260B	
600-181545-2	ACW-14	Total/NA	Water	8260B	
600-181545-3	ACW-15	Total/NA	Water	8260B	
600-181545-4	Doom Well	Total/NA	Water	8260B	
600-181545-5	Oxy Well	Total/NA	Water	8260B	
600-181545-6	Dup-01	Total/NA	Water	8260B	
600-181545-7	TRIP BLANK	Total/NA	Water	8260B	
MB 600-259828/6	Method Blank	Total/NA	Water	8260B	
LCS 600-259828/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-259828/4	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 260545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-1	ACW-13	Total/NA	Water	300.0	
600-181545-2	ACW-14	Total/NA	Water	300.0	
MB 600-260545/4	Method Blank	Total/NA	Water	300.0	
LCS 600-260545/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 260669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-3	ACW-15	Total/NA	Water	300.0	
600-181545-4	Doom Well	Total/NA	Water	300.0	
600-181545-5	Oxy Well	Total/NA	Water	300.0	
600-181545-6	Dup-01	Total/NA	Water	300.0	
MB 600-260669/4	Method Blank	Total/NA	Water	300.0	
LCS 600-260669/5	Lab Control Sample	Total/NA	Water	300.0	
600-181545-4 MS	Doom Well	Total/NA	Water	300.0	
600-181545-4 MSD	Doom Well	Total/NA	Water	300.0	

Metals

Prep Batch: 260396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-1	ACW-13	Total/NA	Water	3010A	
600-181545-2	ACW-14	Total/NA	Water	3010A	
600-181545-3	ACW-15	Total/NA	Water	3010A	
600-181545-4	Doom Well	Total/NA	Water	3010A	
600-181545-5	Oxy Well	Total/NA	Water	3010A	
600-181545-6	Dup-01	Total/NA	Water	3010A	
MB 600-260396/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-260396/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 260501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-1	ACW-13	Total/NA	Water	6010B	260396
600-181545-2	ACW-14	Total/NA	Water	6010B	260396
600-181545-3	ACW-15	Total/NA	Water	6010B	260396
600-181545-4	Doom Well	Total/NA	Water	6010B	260396

TestAmerica Houston

QC Association Summary

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Metals (Continued)

Analysis Batch: 260501 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-5	Oxy Well	Total/NA	Water	6010B	260396
600-181545-6	Dup-01	Total/NA	Water	6010B	260396
MB 600-260396/1-A	Method Blank	Total/NA	Water	6010B	260396
LCS 600-260396/2-A	Lab Control Sample	Total/NA	Water	6010B	260396

General Chemistry

Analysis Batch: 259971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-1	ACW-13	Total/NA	Water	2540 C-1997	
600-181545-2	ACW-14	Total/NA	Water	2540 C-1997	
600-181545-3	ACW-15	Total/NA	Water	2540 C-1997	
600-181545-4	Doom Well	Total/NA	Water	2540 C-1997	
600-181545-5	Oxy Well	Total/NA	Water	2540 C-1997	
600-181545-6	Dup-01	Total/NA	Water	2540 C-1997	
MB 600-259971/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-259971/2	Lab Control Sample	Total/NA	Water	2540 C-1997	
600-181545-2 DU	ACW-14	Total/NA	Water	2540 C-1997	

Analysis Batch: 260168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-181545-1	ACW-13	Total/NA	Water	120.1	
600-181545-2	ACW-14	Total/NA	Water	120.1	
600-181545-3	ACW-15	Total/NA	Water	120.1	
600-181545-4	Doom Well	Total/NA	Water	120.1	
600-181545-5	Oxy Well	Total/NA	Water	120.1	
600-181545-6	Dup-01	Total/NA	Water	120.1	
MB 600-260168/1	Method Blank	Total/NA	Water	120.1	
LCS 600-260168/2	Lab Control Sample	Total/NA	Water	120.1	
600-181545-2 DU	ACW-14	Total/NA	Water	120.1	

TestAmerica Houston

Lab Chronicle

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Client Sample ID: ACW-13

Lab Sample ID: 600-181545-1

Date Collected: 03/05/19 10:35

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	259828	03/06/19 15:33	YX1	TAL HOU
Total/NA	Analysis	300.0		20	260545	03/16/19 23:09	SKR	TAL HOU
Total/NA	Prep	3010A			260396	03/14/19 09:43	AML	TAL HOU
Total/NA	Analysis	6010B		1	260501	03/15/19 12:33	DCL	TAL HOU
Total/NA	Analysis	120.1		1	260168	03/11/19 15:41	A1T	TAL HOU
Total/NA	Analysis	2540 C-1997		1	259971	03/07/19 15:04	A1T	TAL HOU

Client Sample ID: ACW-14

Lab Sample ID: 600-181545-2

Date Collected: 03/05/19 12:25

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	259828	03/06/19 15:59	YX1	TAL HOU
Total/NA	Analysis	300.0		5	260545	03/16/19 23:29	SKR	TAL HOU
Total/NA	Prep	3010A			260396	03/14/19 09:43	AML	TAL HOU
Total/NA	Analysis	6010B		1	260501	03/15/19 12:35	DCL	TAL HOU
Total/NA	Analysis	120.1		1	260168	03/11/19 15:41	A1T	TAL HOU
Total/NA	Analysis	2540 C-1997		1	259971	03/07/19 15:04	A1T	TAL HOU

Client Sample ID: ACW-15

Lab Sample ID: 600-181545-3

Date Collected: 03/05/19 11:40

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	259828	03/06/19 16:24	YX1	TAL HOU
Total/NA	Analysis	300.0		10	260669	03/19/19 17:33	SKR	TAL HOU
Total/NA	Prep	3010A			260396	03/14/19 09:43	AML	TAL HOU
Total/NA	Analysis	6010B		1	260501	03/15/19 12:37	DCL	TAL HOU
Total/NA	Analysis	120.1		1	260168	03/11/19 15:41	A1T	TAL HOU
Total/NA	Analysis	2540 C-1997		1	259971	03/07/19 15:04	A1T	TAL HOU

Client Sample ID: Doom Well

Lab Sample ID: 600-181545-4

Date Collected: 03/05/19 12:35

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	259828	03/06/19 16:50	YX1	TAL HOU
Total/NA	Analysis	300.0		1	260669	03/19/19 17:53	SKR	TAL HOU
Total/NA	Prep	3010A			260396	03/14/19 09:43	AML	TAL HOU
Total/NA	Analysis	6010B		1	260501	03/15/19 12:39	DCL	TAL HOU
Total/NA	Analysis	120.1		1	260168	03/11/19 15:41	A1T	TAL HOU

TestAmerica Houston

Lab Chronicle

Client: AECOM
Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

TestAmerica Job ID: 600-181545-1

Client Sample ID: Doom Well

Lab Sample ID: 600-181545-4

Date Collected: 03/05/19 12:35

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540 C-1997		1	259971	03/07/19 15:04	A1T	TAL HOU

Client Sample ID: Oxy Well

Lab Sample ID: 600-181545-5

Date Collected: 03/05/19 11:55

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	259828	03/06/19 17:15	YX1	TAL HOU
Total/NA	Analysis	300.0		10	260669	03/19/19 18:53	SKR	TAL HOU
Total/NA	Prep	3010A			260396	03/14/19 09:43	AML	TAL HOU
Total/NA	Analysis	6010B		1	260501	03/15/19 12:41	DCL	TAL HOU
Total/NA	Analysis	120.1		1	260168	03/11/19 15:41	A1T	TAL HOU
Total/NA	Analysis	2540 C-1997		1	259971	03/07/19 15:04	A1T	TAL HOU

Client Sample ID: Dup-01

Lab Sample ID: 600-181545-6

Date Collected: 03/05/19 08:00

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	259828	03/06/19 17:40	YX1	TAL HOU
Total/NA	Analysis	300.0		5	260669	03/19/19 19:13	SKR	TAL HOU
Total/NA	Prep	3010A			260396	03/14/19 09:43	AML	TAL HOU
Total/NA	Analysis	6010B		1	260501	03/15/19 12:43	DCL	TAL HOU
Total/NA	Analysis	120.1		1	260168	03/11/19 15:44	A1T	TAL HOU
Total/NA	Analysis	2540 C-1997		1	259971	03/07/19 15:04	A1T	TAL HOU

Client Sample ID: TRIP BLANK

Lab Sample ID: 600-181545-7

Date Collected: 03/05/19 00:00

Matrix: Water

Date Received: 03/06/19 09:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	259828	03/06/19 14:42	YX1	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: AECOM

TestAmerica Job ID: 600-181545-1

Project/Site: JAL#4 Gas Plant Quarterly 03/05/19

Laboratory: TestAmerica Houston

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704223-18-23	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
120.1		Water	Specific Conductance

Chain of Custody Record

Client Information Client Contact: Priscilla Yelvington Company: ARCADIS U.S., Inc. Address: 10205 Westheimer Road Suite 800 City: Houston State: TX, Zip: 77042 Phone: 713-953-4717 (Tel) Email: priscilla.yelvington@arcadis.com Project Name: JAL#4 Gas Plant-Priscilla Yelvington Site: Quarterly sampling - 1Q19		Sampler: <i>Byron Bayles / HMI team</i> Phone: <i>832-347-4513</i> Lab PM: Upton, Cathy L E-Mail: cathy.upton@testamericainc.com		Carrier Tracking No(s): <i>5ED EX</i> 484029049611 Page 1 of 1 Job #:		COC No: 600-51545-15276.1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)																																																																																																																	
Due Date Requested: TAT Requested (days): PO #: WD255945 (Per TA) WO #: Project #: 60008415 (Per TA) SSOW#:		Analysis Requested <table border="1"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>6010B - Sodium</th> <th>8260B_LL - BTEX Only</th> <th>120.1 - Specific Conductance</th> <th>2540C_Calcd - TDS</th> <th>300_ORGFM_28D - Chloride</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>ACW-13</td> <td>3/5/19</td> <td>1035</td> <td>G</td> <td>Water</td> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>ACW-14</td> <td></td> <td>1225</td> <td>G</td> <td>Water</td> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>ACW-15</td> <td></td> <td>1140</td> <td>G</td> <td>Water</td> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Doom Well</td> <td></td> <td>1235</td> <td>G</td> <td>Water</td> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Oxy Well</td> <td></td> <td>1155</td> <td>G</td> <td>Water</td> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>Dup-01</td> <td></td> <td>800</td> <td>G</td> <td>Water</td> <td>N</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>TRIP BLANK</td> <td></td> <td>-</td> <td>G</td> <td>Water</td> <td>N</td> <td>N</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Sodium	8260B_LL - BTEX Only	120.1 - Specific Conductance	2540C_Calcd - TDS	300_ORGFM_28D - Chloride	Total Number of Containers	Special Instructions/Note:	ACW-13	3/5/19	1035	G	Water	N	N	X	X	X	X	X			ACW-14		1225	G	Water	N	N	X	X	X	X	X			ACW-15		1140	G	Water	N	N	X	X	X	X	X			Doom Well		1235	G	Water	N	N	X	X	X	X	X			Oxy Well		1155	G	Water	N	N	X	X	X	X	X			Dup-01		800	G	Water	N	N	X	X	X	X	X			TRIP BLANK		-	G	Water	N	N	X						
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Sodium	8260B_LL - BTEX Only	120.1 - Specific Conductance	2540C_Calcd - TDS	300_ORGFM_28D - Chloride	Total Number of Containers	Special Instructions/Note:																																																																																																										
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ACW-15		1140	G	Water	N	N	X	X	X	X	X																																																																																																												
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Dup-01		800	G	Water	N	N	X	X	X	X	X																																																																																																												
TRIP BLANK		-	G	Water	N	N	X																																																																																																																
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)																																																																																																																							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Month																																																																																																																							
Special Instructions/QC Requirements:																																																																																																																							
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____																																																																																																																							
Relinquished by: <i>Byron Bayles</i> Date/Time: 3/5/19 1400 Company: HMI Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____																																																																																																																							
Custody Seals Intact: ☐ Yes ☐ No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____																																																																																																																							



600-181545 Chain of Custody

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

S Loc: 600 **Receipt Checklist**
181545

19 MAR 6 9:49

JOB NUMBER: _____

Date/Time Received: _____

CLIENT: ArcadisUNPACKED BY: J.S.CARRIER/DRIVER: FedexCustody Seal Present: ☒ YES ☐ NONumber of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
<u>GW</u>	<u>Y / N</u>	<u>Y / N</u>	<u>0.0</u>	<u>IR676</u>	<u>+0.1</u>	<u>0.1</u>
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YESBase samples are >pH 12: ☐ YES ☐ NOAcid preserved are <pH 2: ☐ YES ☐ NO

pH paper Lot # _____

VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒	☐

COMMENTS:

J.S. 3-6-19

Login Sample Receipt Checklist

Client: AECOM

Job Number: 600-181545-1

Login Number: 181545

List Source: TestAmerica Houston

List Number: 1

Creator: Snow, Tiffany B

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	0.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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 $<6\text{mm}$ (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.

Date: February 10, 2020

To: Wally Gilmore, AECOM

CC: Robert Jones, AECOM

From: Ruth Parks, AECOM

Subject: Data Usability Summary for Review of Groundwater Data
Laboratory Report Number 181545
Jal #4 Gas Plant, Jal, New Mexico

Data Usability Summary

Data from TestAmerica in Houston, Texas were reviewed for the analysis of samples collected March 5, 2019 at the Jal #4 Gas Plant in Jal, New Mexico.

Data were reviewed for conformance to the requirements of *SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (SW-846). The purpose of this sampling event was to provide current data on concentrations of potential chemicals of concern (COCs) in groundwater for the Jal #4 Gas Plant property.

Samples were analyzed using:

- SW-846 6010B – Inductively Coupled Plasma – Atomic Emission Spectrometry,
- SW-846 8260B - Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry (GC/MS),
- SW-846 300.0 – Determination of Inorganic Anions by Ion Chromatograph,
- SW-846 120.1 – Conductivity, Specific Conductance, and
- SW-846 2540 C-1997 – Total Dissolved Solids (Dried at 180 C).

Data were reviewed and the results are discussed in this Data Usability Summary (DUS). The reportable data, quality control results, sample receipt checklist and chain-of-custody (C-O-C) records were examined for laboratory report 181545.

Introduction

Groundwater samples, a field duplicate, and a trip blank were analyzed for site-specific metals, volatile organic compounds (VOCs), inorganic anions, specific conductivity, and total dissolved solids (TDS) as requested on the chain-of-custodies (C-O-C). **Table B-1** lists the sample identifications cross-referenced to the laboratory identifications.

Analytical Results

Qualified data are listed in **Table B-2**.

Preservation and Holding Times

All samples were evaluated for agreement with the chain-of-custody (C-O-C). Sample bottles were received in good condition and within the temperature acceptance criteria of ≤ 6 °C. Samples were prepared and analyzed within the holding times specified in SW-846 Table 2-40.

Calibrations

Calibration data were not submitted in this package and are not part of the standard deliverable.

Blanks

Target analytes were not detected in trip or method blanks.

Internal Standards and Surrogate Recoveries

Results with internal standard area counts above the laboratory specifications are qualified as “JL” and below specifications are qualified as “JH” for detected results and “UJL” for non-detected results and listed in **Table B-2**.

Laboratory Control Samples

Samples with laboratory control sample (LCS) recoveries (%R) outside of laboratory specifications are qualified as “JL” and “UJL” when below specifications and as “JH” when above specifications and listed in **Table B-2**. If a laboratory control sampled duplicate (LCSD) was analyzed, data with duplicate precision (as relative percent difference [RPD]) outside of laboratory acceptance criteria is qualified as “J” for LCS precision and listed in **Table B-2**.

Matrix Spike (MS)/Matrix Spike Duplicates (MSD)

Non-project sample data were not evaluated. Data with MS/MSD recoveries outside of laboratory specifications are qualified as “JL” for detections and “UJ” for non-detects when below specifications and “JH” when above specifications and listed in **Table B-2**. Sample data with MS/MSD precision (RPD) outside of the laboratory acceptance criteria are qualified as “J” for MS/MSD precision and listed in **Table B-2**.

Field Precision

Precision results for replicate and duplicate samples are summarized in **Table B-3**. Duplicate precision was not calculated for analytes which were reported as non-detect (U) or qualified as “U” in **Table B-2**. Analytes with non-detect results for both replicate and duplicate were not listed in the table. Field sample and sample duplicate analytes with RPD results outside of the project quality acceptance criteria of ≤ 30 % RPD are qualified as estimated “J” and listed in **Table B-2**.

Summary

Groundwater analytical data are usable for the purpose of determining concentrations of metals, VOCs, inorganics anions, specific conductivity, and TDS in samples.

Tables

Table B-1. Cross-Reference Field Sample Identifications and Laboratory Identifications

Field Identification	Laboratory Identification	Comment
ACW-13	600-181545-1	
ACW-14	600-181545-2	
ACW-15	600-181545-3	
Doom Well	600-181545-4	
Oxy Well	600-181545-5	
DUP-01	600-181545-6	Duplicate of ACW-14
Trip Blank	600-181545-7	Trip Blank

Table B-2. Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
* No Data Qualified.			

Table B-3. Field Precision

Field Identification	Analyte	Sample Result	Duplicate Result	RPD	Qualified
ACW-14 / DUP-01	Chloride	134	134	0.0	A
	Sodium	107	108	0.9	A
	Specific Conductance	889	923	3.8	A
	TDS	692	570	19.3	A
RPD = ((SR-DR)*200)/(SR+DR) A – Acceptable data B – Metals result from laboratory was estimated (>MDL and <RL) NA – Not applicable J – Estimated data due to inability to meet QC criteria U – Analyte not detected U* – Analyte qualified as non-detect per Table B-2					

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

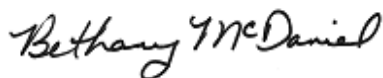
Laboratory Job ID: 600-187272-1

Client Project/Site: JAL#4 Gas Plant--2Q2019

For:

AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore



Authorized for release by:
6/30/2019 9:48:21 AM

Bethany McDaniel, Senior Project Manager
(713)358-2005
bethany.mcdaniel@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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QC Sample Results	12
QC Association Summary	16
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Case Narrative

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Job ID: 600-187272-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative
600-187272-1

Comments

No additional comments.

Receipt

The samples were received on 6/19/2019 9:54 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3° C.

GC/MS VOA

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

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ACW-13 (600-187272-1), ACW-14 (600-187272-2), ACW-15 (600-187272-3), Doow Well (600-187272-4), Oxy Well (600-187272-5), Dup-01 (600-187272-6), (600-187272-A-1 MS) and (600-187272-A-1 MSD). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: AECOM

Job ID: 600-187272-1

Project/Site: JAL#4 Gas Plant--2Q2019

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
6010B	Inductively Coupled Plasma - Atomic Emission Spectrometry	SW846	TAL HOU
120.1	Conductivity, Specific Conductance	MCAWW	TAL HOU
2540 C-1997	Total Dissolved Solids (Dried at 180 °C)	SM	TAL HOU
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

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 HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: AECOM

Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-187272-1	ACW-13	Water	06/18/19 10:15	06/19/19 09:54	
600-187272-2	ACW-14	Water	06/18/19 11:20	06/19/19 09:54	
600-187272-3	ACW-15	Water	06/18/19 09:35	06/19/19 09:54	
600-187272-4	Doow Well	Water	06/18/19 11:50	06/19/19 09:54	
600-187272-5	Oxy Well	Water	06/18/19 10:55	06/19/19 09:54	
600-187272-6	Dup-01	Water	06/18/19 08:00	06/19/19 09:54	
600-187272-7	Trip Blank	Water	06/18/19 00:00	06/19/19 09:54	

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Client Sample ID: ACW-13

Lab Sample ID: 600-187272-1

Date Collected: 06/18/19 10:15

Matrix: Water

Date Received: 06/19/19 09:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 14:50	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 14:50	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 14:50	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		06/21/19 14:50	1
4-Bromofluorobenzene	111		67 - 139		06/21/19 14:50	1
Dibromofluoromethane	111		62 - 130		06/21/19 14:50	1
Toluene-d8 (Surr)	102		70 - 130		06/21/19 14:50	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	590		20	2.7	mg/L			06/20/19 15:28	50

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	150		1.0	0.021	mg/L		06/27/19 06:39	06/28/19 11:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2300		2.0	1.3	umhos/cm			06/26/19 15:15	1
Total Dissolved Solids	1500		20	20	mg/L			06/24/19 14:21	1

Client Sample ID: ACW-14

Lab Sample ID: 600-187272-2

Date Collected: 06/18/19 11:20

Matrix: Water

Date Received: 06/19/19 09:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 15:16	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 15:16	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 15:16	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		06/21/19 15:16	1
4-Bromofluorobenzene	111		67 - 139		06/21/19 15:16	1
Dibromofluoromethane	108		62 - 130		06/21/19 15:16	1
Toluene-d8 (Surr)	102		70 - 130		06/21/19 15:16	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		4.0	0.53	mg/L			06/20/19 16:28	10

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	100		1.0	0.021	mg/L		06/27/19 06:39	06/28/19 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	990		2.0	1.3	umhos/cm			06/26/19 15:15	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Client Sample ID: ACW-14

Lab Sample ID: 600-187272-2

Date Collected: 06/18/19 11:20

Matrix: Water

Date Received: 06/19/19 09:54

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	510		10	10	mg/L			06/24/19 14:21	1

Client Sample ID: ACW-15

Lab Sample ID: 600-187272-3

Date Collected: 06/18/19 09:35

Matrix: Water

Date Received: 06/19/19 09:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 15:42	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 15:42	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 15:42	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		06/21/19 15:42	1
4-Bromofluorobenzene	114		67 - 139		06/21/19 15:42	1
Dibromofluoromethane	107		62 - 130		06/21/19 15:42	1
Toluene-d8 (Surr)	100		70 - 130		06/21/19 15:42	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	180		8.0	1.1	mg/L			06/20/19 16:48	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	96		1.0	0.021	mg/L		06/27/19 06:39	06/28/19 11:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1100		2.0	1.3	umhos/cm			06/26/19 15:15	1
Total Dissolved Solids	610		20	20	mg/L			06/25/19 14:33	1

Client Sample ID: Doow Well

Lab Sample ID: 600-187272-4

Date Collected: 06/18/19 11:50

Matrix: Water

Date Received: 06/19/19 09:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 16:08	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 16:08	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 16:08	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 16:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		50 - 134		06/21/19 16:08	1
4-Bromofluorobenzene	110		67 - 139		06/21/19 16:08	1
Dibromofluoromethane	106		62 - 130		06/21/19 16:08	1
Toluene-d8 (Surr)	100		70 - 130		06/21/19 16:08	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		4.0	0.53	mg/L			06/20/19 17:08	10

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Client Sample ID: Doow Well

Lab Sample ID: 600-187272-4

Date Collected: 06/18/19 11:50

Matrix: Water

Date Received: 06/19/19 09:54

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	63		1.0	0.021	mg/L		06/27/19 06:39	06/28/19 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	640		2.0	1.3	umhos/cm			06/26/19 15:15	1
Total Dissolved Solids	390		10	10	mg/L			06/25/19 14:33	1

Client Sample ID: Oxy Well

Lab Sample ID: 600-187272-5

Date Collected: 06/18/19 10:55

Matrix: Water

Date Received: 06/19/19 09:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 16:35	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 16:35	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 16:35	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		06/21/19 16:35	1
4-Bromofluorobenzene	109		67 - 139		06/21/19 16:35	1
Dibromofluoromethane	106		62 - 130		06/21/19 16:35	1
Toluene-d8 (Surr)	100		70 - 130		06/21/19 16:35	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	220		8.0	1.1	mg/L			06/20/19 17:28	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	98		1.0	0.021	mg/L		06/27/19 06:39	06/28/19 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1400		2.0	1.3	umhos/cm			06/26/19 15:15	1
Total Dissolved Solids	720		20	20	mg/L			06/25/19 14:33	1

Client Sample ID: Dup-01

Lab Sample ID: 600-187272-6

Date Collected: 06/18/19 08:00

Matrix: Water

Date Received: 06/19/19 09:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 17:13	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 17:13	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 17:13	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134		06/21/19 17:13	1
4-Bromofluorobenzene	106		67 - 139		06/21/19 17:13	1
Dibromofluoromethane	107		62 - 130		06/21/19 17:13	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Client Sample ID: Dup-01

Lab Sample ID: 600-187272-6

Date Collected: 06/18/19 08:00

Matrix: Water

Date Received: 06/19/19 09:54

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		06/21/19 17:13	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		4.0	0.53	mg/L			06/20/19 17:48	10

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	100		1.0	0.021	mg/L		06/27/19 06:39	06/28/19 11:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	990		2.0	1.3	umhos/cm			06/26/19 15:15	1
Total Dissolved Solids	560		10	10	mg/L			06/25/19 14:33	1

Client Sample ID: Trip Blank

Lab Sample ID: 600-187272-7

Date Collected: 06/18/19 00:00

Matrix: Water

Date Received: 06/19/19 09:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 10:34	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 10:34	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 10:34	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 10:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		50 - 134		06/21/19 10:34	1
4-Bromofluorobenzene	110		67 - 139		06/21/19 10:34	1
Dibromofluoromethane	105		62 - 130		06/21/19 10:34	1
Toluene-d8 (Surr)	105		70 - 130		06/21/19 10:34	1

Definitions/Glossary

Client: AECOM

Job ID: 600-187272-1

Project/Site: JAL#4 Gas Plant--2Q2019

Qualifiers

Metals

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

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Surrogate Summary

Client: AECOM

Job ID: 600-187272-1

Project/Site: JAL#4 Gas Plant--2Q2019

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-187272-1	ACW-13	98	111	111	102
600-187272-2	ACW-14	96	111	108	102
600-187272-3	ACW-15	98	114	107	100
600-187272-4	Doow Well	96	110	106	100
600-187272-5	Oxy Well	94	109	106	100
600-187272-6	Dup-01	99	106	107	98
600-187272-7	Trip Blank	88	110	105	105
LCS 600-267702/3	Lab Control Sample	92	111	112	106
LCSD 600-267702/4	Lab Control Sample Dup	95	109	113	108
MB 600-267702/6	Method Blank	93	111	105	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

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

Lab Sample ID: MB 600-267702/6

Matrix: Water

Analysis Batch: 267702

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			06/21/19 10:08	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			06/21/19 10:08	1
Toluene	<0.0010		0.0010	0.00020	mg/L			06/21/19 10:08	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			06/21/19 10:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		50 - 134		06/21/19 10:08	1
4-Bromofluorobenzene	111		67 - 139		06/21/19 10:08	1
Dibromofluoromethane	105		62 - 130		06/21/19 10:08	1
Toluene-d8 (Surr)	102		70 - 130		06/21/19 10:08	1

Lab Sample ID: LCS 600-267702/3

Matrix: Water

Analysis Batch: 267702

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.00902		mg/L		90	70 - 130
Ethylbenzene	0.0100	0.00914		mg/L		91	70 - 130
Toluene	0.0100	0.00941		mg/L		94	70 - 130
Xylenes, Total	0.0200	0.0181		mg/L		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		50 - 134
4-Bromofluorobenzene	111		67 - 139
Dibromofluoromethane	112		62 - 130
Toluene-d8 (Surr)	106		70 - 130

Lab Sample ID: LCSD 600-267702/4

Matrix: Water

Analysis Batch: 267702

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	0.0100	0.0103		mg/L		103	70 - 130	13	20
Ethylbenzene	0.0100	0.0106		mg/L		106	70 - 130	15	20
Toluene	0.0100	0.0110		mg/L		110	70 - 130	16	20
Xylenes, Total	0.0200	0.0211		mg/L		106	70 - 130	16	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		50 - 134
4-Bromofluorobenzene	109		67 - 139
Dibromofluoromethane	113		62 - 130
Toluene-d8 (Surr)	108		70 - 130

QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-267613/12

Matrix: Water

Analysis Batch: 267613

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.40		0.40	0.053	mg/L			06/20/19 11:08	1

Lab Sample ID: LCS 600-267613/13

Matrix: Water

Analysis Batch: 267613

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.7		mg/L		98	90 - 110

Lab Sample ID: 600-187272-1 MS

Matrix: Water

Analysis Batch: 267613

Client Sample ID: ACW-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	590		500	992		mg/L		81	80 - 120

Lab Sample ID: 600-187272-1 MSD

Matrix: Water

Analysis Batch: 267613

Client Sample ID: ACW-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	590		500	1000		mg/L		83	80 - 120	1	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Lab Sample ID: MB 600-268128/1-A

Matrix: Water

Analysis Batch: 268294

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 268128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<1.0		1.0	0.021	mg/L		06/27/19 06:39	06/28/19 11:00	1

Lab Sample ID: LCS 600-268128/2-A

Matrix: Water

Analysis Batch: 268294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 268128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	10.0	10.1		mg/L		101	80 - 120

Lab Sample ID: 600-187272-1 MS

Matrix: Water

Analysis Batch: 268294

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 268128

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	150		10.0	160	4	mg/L		92	75 - 125

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QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Lab Sample ID: 600-187272-1 MSD
Matrix: Water
Analysis Batch: 268294

Client Sample ID: ACW-13
Prep Type: Total/NA
Prep Batch: 268128

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	150		10.0	159	4	mg/L		85	75 - 125	0	20

Lab Sample ID: 600-187272-1 DU
Matrix: Water
Analysis Batch: 268294

Client Sample ID: ACW-13
Prep Type: Total/NA
Prep Batch: 268128

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sodium	150		149		mg/L		0.9	20

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 600-268112/31
Matrix: Water
Analysis Batch: 268112

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	1.3	umhos/cm			06/26/19 15:15	1

Lab Sample ID: MB 600-268112/59
Matrix: Water
Analysis Batch: 268112

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	1.3	umhos/cm			06/26/19 15:15	1

Lab Sample ID: LCS 600-268112/32
Matrix: Water
Analysis Batch: 268112

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	9.62		umhos/cm		96	90 - 110

Lab Sample ID: LCS 600-268112/60
Matrix: Water
Analysis Batch: 268112

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	9.43		umhos/cm		94	90 - 110

Lab Sample ID: 600-187272-1 DU
Matrix: Water
Analysis Batch: 268112

Client Sample ID: ACW-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	2300		2300		umhos/cm		2	20

QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 600-267854/1

Matrix: Water

Analysis Batch: 267854

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			06/24/19 14:21	1

Lab Sample ID: LCS 600-267854/2

Matrix: Water

Analysis Batch: 267854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1790		mg/L		99	90 - 110

Lab Sample ID: 600-187272-1 DU

Matrix: Water

Analysis Batch: 267854

Client Sample ID: ACW-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1500		1580		mg/L		2	10

Lab Sample ID: MB 600-267963/1

Matrix: Water

Analysis Batch: 267963

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			06/25/19 14:33	1

Lab Sample ID: LCS 600-267963/2

Matrix: Water

Analysis Batch: 267963

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1710		mg/L		95	90 - 110

Lab Sample ID: 600-187272-3 DU

Matrix: Water

Analysis Batch: 267963

Client Sample ID: ACW-15

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	610		678		mg/L		10	10

QC Association Summary

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

GC/MS VOA

Analysis Batch: 267702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-1	ACW-13	Total/NA	Water	8260B	
600-187272-2	ACW-14	Total/NA	Water	8260B	
600-187272-3	ACW-15	Total/NA	Water	8260B	
600-187272-4	Doow Well	Total/NA	Water	8260B	
600-187272-5	Oxy Well	Total/NA	Water	8260B	
600-187272-6	Dup-01	Total/NA	Water	8260B	
600-187272-7	Trip Blank	Total/NA	Water	8260B	
MB 600-267702/6	Method Blank	Total/NA	Water	8260B	
LCS 600-267702/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-267702/4	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 267613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-1	ACW-13	Total/NA	Water	300.0	
600-187272-2	ACW-14	Total/NA	Water	300.0	
600-187272-3	ACW-15	Total/NA	Water	300.0	
600-187272-4	Doow Well	Total/NA	Water	300.0	
600-187272-5	Oxy Well	Total/NA	Water	300.0	
600-187272-6	Dup-01	Total/NA	Water	300.0	
MB 600-267613/12	Method Blank	Total/NA	Water	300.0	
LCS 600-267613/13	Lab Control Sample	Total/NA	Water	300.0	
600-187272-1 MS	ACW-13	Total/NA	Water	300.0	
600-187272-1 MSD	ACW-13	Total/NA	Water	300.0	

Metals

Prep Batch: 268128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-1	ACW-13	Total/NA	Water	3010A	
600-187272-2	ACW-14	Total/NA	Water	3010A	
600-187272-3	ACW-15	Total/NA	Water	3010A	
600-187272-4	Doow Well	Total/NA	Water	3010A	
600-187272-5	Oxy Well	Total/NA	Water	3010A	
600-187272-6	Dup-01	Total/NA	Water	3010A	
MB 600-268128/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-268128/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-187272-1 MS	ACW-13	Total/NA	Water	3010A	
600-187272-1 MSD	ACW-13	Total/NA	Water	3010A	
600-187272-1 DU	ACW-13	Total/NA	Water	3010A	

Analysis Batch: 268294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-1	ACW-13	Total/NA	Water	6010B	268128
600-187272-2	ACW-14	Total/NA	Water	6010B	268128
600-187272-3	ACW-15	Total/NA	Water	6010B	268128
600-187272-4	Doow Well	Total/NA	Water	6010B	268128
600-187272-5	Oxy Well	Total/NA	Water	6010B	268128
600-187272-6	Dup-01	Total/NA	Water	6010B	268128
MB 600-268128/1-A	Method Blank	Total/NA	Water	6010B	268128
LCS 600-268128/2-A	Lab Control Sample	Total/NA	Water	6010B	268128

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Metals (Continued)

Analysis Batch: 268294 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-1 MS	ACW-13	Total/NA	Water	6010B	268128
600-187272-1 MSD	ACW-13	Total/NA	Water	6010B	268128
600-187272-1 DU	ACW-13	Total/NA	Water	6010B	268128

General Chemistry

Analysis Batch: 267854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-1	ACW-13	Total/NA	Water	2540 C-1997	
600-187272-2	ACW-14	Total/NA	Water	2540 C-1997	
MB 600-267854/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-267854/2	Lab Control Sample	Total/NA	Water	2540 C-1997	
600-187272-1 DU	ACW-13	Total/NA	Water	2540 C-1997	

Analysis Batch: 267963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-3	ACW-15	Total/NA	Water	2540 C-1997	
600-187272-4	Doow Well	Total/NA	Water	2540 C-1997	
600-187272-5	Oxy Well	Total/NA	Water	2540 C-1997	
600-187272-6	Dup-01	Total/NA	Water	2540 C-1997	
MB 600-267963/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-267963/2	Lab Control Sample	Total/NA	Water	2540 C-1997	
600-187272-3 DU	ACW-15	Total/NA	Water	2540 C-1997	

Analysis Batch: 268112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-187272-1	ACW-13	Total/NA	Water	120.1	
600-187272-2	ACW-14	Total/NA	Water	120.1	
600-187272-3	ACW-15	Total/NA	Water	120.1	
600-187272-4	Doow Well	Total/NA	Water	120.1	
600-187272-5	Oxy Well	Total/NA	Water	120.1	
600-187272-6	Dup-01	Total/NA	Water	120.1	
MB 600-268112/31	Method Blank	Total/NA	Water	120.1	
MB 600-268112/59	Method Blank	Total/NA	Water	120.1	
LCS 600-268112/32	Lab Control Sample	Total/NA	Water	120.1	
LCS 600-268112/60	Lab Control Sample	Total/NA	Water	120.1	
600-187272-1 DU	ACW-13	Total/NA	Water	120.1	

Lab Chronicle

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Client Sample ID: ACW-13

Date Collected: 06/18/19 10:15

Date Received: 06/19/19 09:54

Lab Sample ID: 600-187272-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	267702	06/21/19 14:50	WS1	TAL HOU
Total/NA	Analysis	300.0		50	267613	06/20/19 15:28	KP1	TAL HOU
Total/NA	Prep	3010A			268128	06/27/19 06:39	KP1	TAL HOU
Total/NA	Analysis	6010B		1	268294	06/28/19 11:10	KP1	TAL HOU
Total/NA	Analysis	120.1		1	268112	06/26/19 15:15	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	267854	06/24/19 14:21	DTN	TAL HOU

Client Sample ID: ACW-14

Date Collected: 06/18/19 11:20

Date Received: 06/19/19 09:54

Lab Sample ID: 600-187272-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	267702	06/21/19 15:16	WS1	TAL HOU
Total/NA	Analysis	300.0		10	267613	06/20/19 16:28	KP1	TAL HOU
Total/NA	Prep	3010A			268128	06/27/19 06:39	KP1	TAL HOU
Total/NA	Analysis	6010B		1	268294	06/28/19 11:18	KP1	TAL HOU
Total/NA	Analysis	120.1		1	268112	06/26/19 15:15	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	267854	06/24/19 14:21	DTN	TAL HOU

Client Sample ID: ACW-15

Date Collected: 06/18/19 09:35

Date Received: 06/19/19 09:54

Lab Sample ID: 600-187272-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	267702	06/21/19 15:42	WS1	TAL HOU
Total/NA	Analysis	300.0		20	267613	06/20/19 16:48	KP1	TAL HOU
Total/NA	Prep	3010A			268128	06/27/19 06:39	KP1	TAL HOU
Total/NA	Analysis	6010B		1	268294	06/28/19 11:26	KP1	TAL HOU
Total/NA	Analysis	120.1		1	268112	06/26/19 15:15	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	267963	06/25/19 14:33	DTN	TAL HOU

Client Sample ID: Doow Well

Date Collected: 06/18/19 11:50

Date Received: 06/19/19 09:54

Lab Sample ID: 600-187272-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	267702	06/21/19 16:08	WS1	TAL HOU
Total/NA	Analysis	300.0		10	267613	06/20/19 17:08	KP1	TAL HOU
Total/NA	Prep	3010A			268128	06/27/19 06:39	KP1	TAL HOU
Total/NA	Analysis	6010B		1	268294	06/28/19 11:28	KP1	TAL HOU
Total/NA	Analysis	120.1		1	268112	06/26/19 15:15	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	267963	06/25/19 14:33	DTN	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: AECOM
Project/Site: JAL#4 Gas Plant--2Q2019

Job ID: 600-187272-1

Client Sample ID: Oxy Well

Lab Sample ID: 600-187272-5

Date Collected: 06/18/19 10:55

Matrix: Water

Date Received: 06/19/19 09:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	267702	06/21/19 16:35	WS1	TAL HOU
Total/NA	Analysis	300.0		20	267613	06/20/19 17:28	KP1	TAL HOU
Total/NA	Prep	3010A			268128	06/27/19 06:39	KP1	TAL HOU
Total/NA	Analysis	6010B		1	268294	06/28/19 11:30	KP1	TAL HOU
Total/NA	Analysis	120.1		1	268112	06/26/19 15:15	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	267963	06/25/19 14:33	DTN	TAL HOU

Client Sample ID: Dup-01

Lab Sample ID: 600-187272-6

Date Collected: 06/18/19 08:00

Matrix: Water

Date Received: 06/19/19 09:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	267702	06/21/19 17:13	WS1	TAL HOU
Total/NA	Analysis	300.0		10	267613	06/20/19 17:48	KP1	TAL HOU
Total/NA	Prep	3010A			268128	06/27/19 06:39	KP1	TAL HOU
Total/NA	Analysis	6010B		1	268294	06/28/19 11:32	KP1	TAL HOU
Total/NA	Analysis	120.1		1	268112	06/26/19 15:15	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	267963	06/25/19 14:33	DTN	TAL HOU

Client Sample ID: Trip Blank

Lab Sample ID: 600-187272-7

Date Collected: 06/18/19 00:00

Matrix: Water

Date Received: 06/19/19 09:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	267702	06/21/19 10:34	WS1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: AECOM

Job ID: 600-187272-1

Project/Site: JAL#4 Gas Plant--2Q2019

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704223-18-23	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
120.1		Water	Specific Conductance

[illegible]

Sample Receipt Checklist

Date/Time Received:

19 JUN 19 9:54

JOB NUMBER:

CLIENT:

AECOM

UNPACKED BY:

JR

CARRIER/DRIVER:

Fedex

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received:

1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
WIB	Y / N	Y / N	4.5	676	-0.2	4.3
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YESBase samples are >pH 12: ☐ YES ☐ NO

Acid preserved are <pH 2:

☒ YES☐ NO

pH paper Lot #

HC 987808

VOA headspace acceptable (5-6mm):

☒ YES☐ NO☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES☐ NO**COMMENTS:**

JR 6/19/19

Login Sample Receipt Checklist

Client: AECOM

Job Number: 600-187272-1

Login Number: 187272

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	4.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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 $<6\text{mm}$ (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.

Date: February 11, 2020

To: Wally Gilmore, AECOM

CC: Robert Jones, AECOM

From: Ruth Parks, AECOM

Subject: Data Usability Summary for Review of Groundwater Data
Laboratory Report Number 187272
Jal #4 Gas Plant, Jal, New Mexico

Data Usability Summary

Data from TestAmerica in Houston, Texas were reviewed for the analysis of samples collected June 18, 2019 at the Jal #4 Gas Plant in Jal, New Mexico.

Data were reviewed for conformance to the requirements of *SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (SW-846). The purpose of this sampling event was to provide current data on concentrations of potential chemicals of concern (COCs) in groundwater for the Jal #4 Gas Plant property.

Samples were analyzed using:

- SW-846 6010B – Inductively Coupled Plasma – Atomic Emission Spectrometry,
- SW-846 8260B - Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry (GC/MS),
- SW-846 300.0 – Determination of Inorganic Anions by Ion Chromatograph,
- SW-846 120.1 – Conductivity, Specific Conductance, and
- SW-846 2540 C-1997 – Total Dissolved Solids (Dried at 180 C).

Data were reviewed and the results are discussed in this Data Usability Summary (DUS). The reportable data, quality control results, sample receipt checklist and chain-of-custody (C-O-C) records were examined for laboratory report 187272.

Introduction

Groundwater samples, a field duplicate, and a trip blank were analyzed for site-specific metals, volatile organic compounds (VOCs), inorganic anions, specific conductivity, and total dissolved solids (TDS) as requested on the chain-of-custodies (C-O-C). **Table B-1** lists the sample identifications cross-referenced to the laboratory identifications.

Analytical Results

Qualified data are listed in **Table B-2**.

Preservation and Holding Times

All samples were evaluated for agreement with the chain-of-custody (C-O-C). Sample bottles were received in good condition and within the temperature acceptance criteria of ≤ 6 °C. Samples were prepared and analyzed within the holding times specified in SW-846 Table 2-40.

Calibrations

Calibration data were not submitted in this package and are not part of the standard deliverable.

Blanks

Target analytes were not detected in trip or method blanks.

Internal Standards and Surrogate Recoveries

Results with internal standard area counts above the laboratory specifications are qualified as “JL” and below specifications are qualified as “JH” for detected results and “UJL” for non-detected results and listed in **Table B-2**.

Laboratory Control Samples

Samples with laboratory control sample (LCS) recoveries (%R) outside of laboratory specifications are qualified as “JL” and “UJL” when below specifications and as “JH” when above specifications and listed in **Table B-2**. If a laboratory control sampled duplicate (LCSD) was analyzed, data with duplicate precision (as relative percent difference [RPD]) outside of laboratory acceptance criteria is qualified as “J” for LCS precision and listed in **Table B-2**.

Matrix Spike (MS)/Matrix Spike Duplicates (MSD)

Non-project sample data were not evaluated. Data with MS/MSD recoveries outside of laboratory specifications are qualified as “JL” for detections and “UJ” for non-detects when below specifications and “JH” when above specifications and listed in **Table B-2**. Sample data with MS/MSD precision (RPD) outside of the laboratory acceptance criteria are qualified as “J” for MS/MSD precision and listed in **Table B-2**.

Field Precision

Precision results for replicate and duplicate samples are summarized in **Table B-3**. Duplicate precision was not calculated for analytes which were reported as non-detect (U) or qualified as “U” in **Table B-2**. Analytes with non-detect results for both replicate and duplicate were not listed in the table. Field sample and sample duplicate analytes with RPD results outside of the project quality acceptance criteria of ≤ 30 % RPD are qualified as estimated “J” and listed in **Table B-2**.

Summary

Groundwater analytical data are usable for the purpose of determining concentrations of metals, VOCs, inorganics anions, specific conductivity, and TDS in samples.

Tables

Table B-1. Cross-Reference Field Sample Identifications and Laboratory Identifications

Field Identification	Laboratory Identification	Comment
ACW-13	600-187272-1	
ACW-14	600-187272-2	
ACW-15	600-187272-3	
Doom Well	600-187272-4	
Oxy Well	600-187272-5	
DUP-01	600-187272-6	Duplicate of ACW-14
Trip Blank	600-187272-7	Trip Blank

Table B-2. Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
* No Data Qualified.			

Table B-3. Field Precision

Field Identification	Analyte	Sample Result	Duplicate Result	RPD	Qualified
ACW-14 / DUP-01	Chloride	130	130	0	A
	Sodium	100	100	0	A
	Specific Conductance	990	990	0	A
	TDS	510	560	9.9	A
RPD = ((SR-DR)*200)/(SR+DR) A – Acceptable data B – Metals result from laboratory was estimated (>MDL and <RL) NA – Not applicable J – Estimated data due to inability to meet QC criteria U – Analyte not detected U* – Analyte qualified as non-detect per Table B-2					

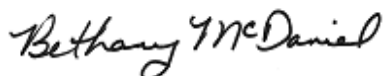
ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-191777-1
Client Project/Site: JAL#4 Gas Plant 3Q19

For:
AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore



Authorized for release by:
9/20/2019 5:21:00 PM

Bethany McDaniel, Senior Project Manager
(713)358-2005
bethany.mcdaniel@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Case Narrative

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Job ID: 600-191777-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-191777-1

Comments

No additional comments.

Receipt

The samples were received on 9/11/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.2° C.

GC/MS VOA

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

Method(s) 300.0: The method blank for analytical batch 600-274705 contained chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ACW-13 (600-191777-1), ACW-14 (600-191777-2), ACW-15 (600-191777-3), Doom Well (600-191777-4), Oxy Well (600-191777-5), Dup-01 (600-191777-6), (600-191879-B-1), (600-191879-B-1 MS), (600-191879-B-1 MSD), (600-191944-A-1), (600-191944-A-1 MS) and (600-191944-A-1 MSD). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: AECOM

Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
6010B	Inductively Coupled Plasma - Atomic Emission Spectrometry	SW846	TAL HOU
120.1	Conductivity, Specific Conductance	MCAWW	TAL HOU
2540 C-1997	Total Dissolved Solids (Dried at 180 °C)	SM	TAL HOU
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

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 HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: AECOM

Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-191777-1	ACW-13	Water	09/10/19 09:25	09/11/19 09:30	
600-191777-2	ACW-14	Water	09/10/19 10:40	09/11/19 09:30	
600-191777-3	ACW-15	Water	09/10/19 10:05	09/11/19 09:30	
600-191777-4	Doom Well	Water	09/10/19 10:10	09/11/19 09:30	
600-191777-5	Oxy Well	Water	09/10/19 09:10	09/11/19 09:30	
600-191777-6	Dup-01	Water	09/10/19 08:00	09/11/19 09:30	
600-191777-7	Trip Blank	Water	09/10/19 00:00	09/11/19 09:30	

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Client Sample ID: ACW-13

Date Collected: 09/10/19 09:25

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L	-		09/11/19 17:15	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L	-		09/11/19 17:15	1
Toluene	<0.0010		0.0010	0.00020	mg/L	-		09/11/19 17:15	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L	-		09/11/19 17:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		50 - 134		09/11/19 17:15	1
4-Bromofluorobenzene	96		67 - 139		09/11/19 17:15	1
Dibromofluoromethane	102		62 - 130		09/11/19 17:15	1
Toluene-d8 (Surr)	79		70 - 130		09/11/19 17:15	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	660		8.0	1.1	mg/L	-		09/13/19 21:54	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	150		1.0	0.021	mg/L	-	09/18/19 09:30	09/20/19 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2400		2.0	1.3	umhos/cm	-		09/13/19 12:45	1
Total Dissolved Solids	2000		20	20	mg/L	-		09/13/19 14:12	1

Client Sample ID: ACW-14

Date Collected: 09/10/19 10:40

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L	-		09/11/19 17:45	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L	-		09/11/19 17:45	1
Toluene	<0.0010		0.0010	0.00020	mg/L	-		09/11/19 17:45	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L	-		09/11/19 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		50 - 134		09/11/19 17:45	1
4-Bromofluorobenzene	102		67 - 139		09/11/19 17:45	1
Dibromofluoromethane	114		62 - 130		09/11/19 17:45	1
Toluene-d8 (Surr)	85		70 - 130		09/11/19 17:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		20	2.7	mg/L	-		09/16/19 21:59	50

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	110		1.0	0.021	mg/L	-	09/18/19 09:30	09/20/19 09:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1000		2.0	1.3	umhos/cm	-		09/13/19 12:45	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Client Sample ID: ACW-14

Date Collected: 09/10/19 10:40

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-2

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	480		20	20	mg/L			09/13/19 14:12	1

Client Sample ID: ACW-15

Date Collected: 09/10/19 10:05

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			09/11/19 18:15	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			09/11/19 18:15	1
Toluene	<0.0010		0.0010	0.00020	mg/L			09/11/19 18:15	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			09/11/19 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		50 - 134		09/11/19 18:15	1
4-Bromofluorobenzene	92		67 - 139		09/11/19 18:15	1
Dibromofluoromethane	103		62 - 130		09/11/19 18:15	1
Toluene-d8 (Surr)	79		70 - 130		09/11/19 18:15	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		8.0	1.1	mg/L			09/13/19 22:34	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	99		1.0	0.021	mg/L		09/18/19 09:30	09/20/19 09:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1100		2.0	1.3	umhos/cm			09/13/19 12:45	1
Total Dissolved Solids	780		20	20	mg/L			09/16/19 13:50	1

Client Sample ID: Doom Well

Date Collected: 09/10/19 10:10

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			09/11/19 18:46	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			09/11/19 18:46	1
Toluene	<0.0010		0.0010	0.00020	mg/L			09/11/19 18:46	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			09/11/19 18:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	127		50 - 134		09/11/19 18:46	1
4-Bromofluorobenzene	100		67 - 139		09/11/19 18:46	1
Dibromofluoromethane	114		62 - 130		09/11/19 18:46	1
Toluene-d8 (Surr)	86		70 - 130		09/11/19 18:46	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30		0.80	0.11	mg/L			09/13/19 22:54	2

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Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Client Sample ID: Doom Well

Date Collected: 09/10/19 10:10

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-4

Matrix: Water

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	65		1.0	0.021	mg/L		09/18/19 09:30	09/20/19 09:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	650		2.0	1.3	umhos/cm			09/13/19 12:45	1
Total Dissolved Solids	380		10	10	mg/L			09/13/19 14:12	1

Client Sample ID: Oxy Well

Date Collected: 09/10/19 09:10

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			09/11/19 19:16	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			09/11/19 19:16	1
Toluene	<0.0010		0.0010	0.00020	mg/L			09/11/19 19:16	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			09/11/19 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		50 - 134		09/11/19 19:16	1
4-Bromofluorobenzene	93		67 - 139		09/11/19 19:16	1
Dibromofluoromethane	103		62 - 130		09/11/19 19:16	1
Toluene-d8 (Surr)	77		70 - 130		09/11/19 19:16	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	250	B	8.0	1.1	mg/L			09/13/19 23:54	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	110		1.0	0.021	mg/L		09/18/19 09:30	09/20/19 09:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1500		2.0	1.3	umhos/cm			09/13/19 12:45	1
Total Dissolved Solids	810		20	20	mg/L			09/13/19 14:12	1

Client Sample ID: Dup-01

Date Collected: 09/10/19 08:00

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			09/11/19 19:45	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			09/11/19 19:45	1
Toluene	<0.0010		0.0010	0.00020	mg/L			09/11/19 19:45	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			09/11/19 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		50 - 134		09/11/19 19:45	1
4-Bromofluorobenzene	94		67 - 139		09/11/19 19:45	1
Dibromofluoromethane	107		62 - 130		09/11/19 19:45	1

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Client Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Client Sample ID: Dup-01

Date Collected: 09/10/19 08:00

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-6

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	82		70 - 130		09/11/19 19:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140	B	2.0	0.27	mg/L			09/14/19 02:14	5

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	100		1.0	0.021	mg/L		09/18/19 09:30	09/20/19 09:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1000		2.0	1.3	umhos/cm			09/13/19 12:45	1
Total Dissolved Solids	660		10	10	mg/L			09/16/19 13:50	1

Client Sample ID: Trip Blank

Date Collected: 09/10/19 00:00

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			09/11/19 16:46	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			09/11/19 16:46	1
Toluene	<0.0010		0.0010	0.00020	mg/L			09/11/19 16:46	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			09/11/19 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		50 - 134		09/11/19 16:46	1
4-Bromofluorobenzene	95		67 - 139		09/11/19 16:46	1
Dibromofluoromethane	101		62 - 130		09/11/19 16:46	1
Toluene-d8 (Surr)	81		70 - 130		09/11/19 16:46	1

Definitions/Glossary

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Surrogate Summary

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	BFB (67-139)	DBFM (62-130)	TOL (70-130)
600-191777-1	ACW-13	117	96	102	79
600-191777-2	ACW-14	124	102	114	85
600-191777-3	ACW-15	114	92	103	79
600-191777-4	Doom Well	127	100	114	86
600-191777-5	Oxy Well	114	93	103	77
600-191777-6	Dup-01	118	94	107	82
600-191777-7	Trip Blank	115	95	101	81
LCS 600-274470/4	Lab Control Sample	77	86	75	88
LCSD 600-274470/5	Lab Control Sample Dup	78	84	72	88
MB 600-274470/7	Method Blank	114	96	103	78

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

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

Lab Sample ID: MB 600-274470/7

Matrix: Water

Analysis Batch: 274470

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			09/11/19 16:17	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			09/11/19 16:17	1
Toluene	<0.0010		0.0010	0.00020	mg/L			09/11/19 16:17	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			09/11/19 16:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		50 - 134		09/11/19 16:17	1
4-Bromofluorobenzene	96		67 - 139		09/11/19 16:17	1
Dibromofluoromethane	103		62 - 130		09/11/19 16:17	1
Toluene-d8 (Surr)	78		70 - 130		09/11/19 16:17	1

Lab Sample ID: LCS 600-274470/4

Matrix: Water

Analysis Batch: 274470

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.0118		mg/L		118	70 - 130
Ethylbenzene	0.0100	0.00835		mg/L		84	70 - 130
Toluene	0.0100	0.00879		mg/L		88	70 - 130
Xylenes, Total	0.0200	0.0178		mg/L		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	77		50 - 134
4-Bromofluorobenzene	86		67 - 139
Dibromofluoromethane	75		62 - 130
Toluene-d8 (Surr)	88		70 - 130

Lab Sample ID: LCSD 600-274470/5

Matrix: Water

Analysis Batch: 274470

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	0.0100	0.0118		mg/L		118	70 - 130	0	20
Ethylbenzene	0.0100	0.00799		mg/L		80	70 - 130	4	20
Toluene	0.0100	0.00846		mg/L		85	70 - 130	4	20
Xylenes, Total	0.0200	0.0173		mg/L		87	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		50 - 134
4-Bromofluorobenzene	84		67 - 139
Dibromofluoromethane	72		62 - 130
Toluene-d8 (Surr)	88		70 - 130

QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-274705/35

Matrix: Water

Analysis Batch: 274705

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.190	J	0.40	0.053	mg/L	-		09/13/19 23:14	1

Lab Sample ID: MB 600-274705/4

Matrix: Water

Analysis Batch: 274705

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.40		0.40	0.053	mg/L	-		09/13/19 12:53	1

Lab Sample ID: LCS 600-274705/36

Matrix: Water

Analysis Batch: 274705

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.8		mg/L	-	99	90 - 110

Lab Sample ID: LCS 600-274705/5

Matrix: Water

Analysis Batch: 274705

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.7		mg/L	-	98	90 - 110

Lab Sample ID: MB 600-274863/35

Matrix: Water

Analysis Batch: 274863

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.40		0.40	0.053	mg/L	-		09/16/19 23:39	1

Lab Sample ID: MB 600-274863/4

Matrix: Water

Analysis Batch: 274863

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.40		0.40	0.053	mg/L	-		09/16/19 13:19	1

Lab Sample ID: LCS 600-274863/36

Matrix: Water

Analysis Batch: 274863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.6		mg/L	-	98	90 - 110

Lab Sample ID: LCS 600-274863/5

Matrix: Water

Analysis Batch: 274863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.6		mg/L	-	98	90 - 110

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QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Lab Sample ID: MB 600-275071/1-A
Matrix: Water
Analysis Batch: 275297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 275071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	<1.0		1.0	0.021	mg/L		09/18/19 09:30	09/20/19 09:08	1

Lab Sample ID: LCS 600-275071/2-A
Matrix: Water
Analysis Batch: 275297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 275071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	10.0	10.6		mg/L		106	80 - 120

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 600-274735/1
Matrix: Water
Analysis Batch: 274735

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	1.3	umhos/cm			09/13/19 12:45	1

Lab Sample ID: LCS 600-274735/2
Matrix: Water
Analysis Batch: 274735

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	10.7		umhos/cm		107	90 - 110

Lab Sample ID: 600-191777-2 DU
Matrix: Water
Analysis Batch: 274735

Client Sample ID: ACW-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	1000		1010		umhos/cm		1	20

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 600-274746/1
Matrix: Water
Analysis Batch: 274746

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/13/19 14:12	1

Lab Sample ID: LCS 600-274746/2
Matrix: Water
Analysis Batch: 274746

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1800		mg/L		100	90 - 110

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QC Sample Results

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: 600-191777-1 DU
Matrix: Water
Analysis Batch: 274746

Client Sample ID: ACW-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	2000		2050		mg/L		0.9	10

Lab Sample ID: MB 600-274884/1
Matrix: Water
Analysis Batch: 274884

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			09/16/19 13:50	1

Lab Sample ID: LCS 600-274884/2
Matrix: Water
Analysis Batch: 274884

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1840		mg/L		102	90 - 110

Lab Sample ID: 600-191777-6 DU
Matrix: Water
Analysis Batch: 274884

Client Sample ID: Dup-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	660		629		mg/L		4	10

QC Association Summary

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

GC/MS VOA

Analysis Batch: 274470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-1	ACW-13	Total/NA	Water	8260B	
600-191777-2	ACW-14	Total/NA	Water	8260B	
600-191777-3	ACW-15	Total/NA	Water	8260B	
600-191777-4	Doom Well	Total/NA	Water	8260B	
600-191777-5	Oxy Well	Total/NA	Water	8260B	
600-191777-6	Dup-01	Total/NA	Water	8260B	
600-191777-7	Trip Blank	Total/NA	Water	8260B	
MB 600-274470/7	Method Blank	Total/NA	Water	8260B	
LCS 600-274470/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-274470/5	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 274705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-1	ACW-13	Total/NA	Water	300.0	
600-191777-3	ACW-15	Total/NA	Water	300.0	
600-191777-4	Doom Well	Total/NA	Water	300.0	
600-191777-5	Oxy Well	Total/NA	Water	300.0	
600-191777-6	Dup-01	Total/NA	Water	300.0	
MB 600-274705/35	Method Blank	Total/NA	Water	300.0	
MB 600-274705/4	Method Blank	Total/NA	Water	300.0	
LCS 600-274705/36	Lab Control Sample	Total/NA	Water	300.0	
LCS 600-274705/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 274863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-2	ACW-14	Total/NA	Water	300.0	
MB 600-274863/35	Method Blank	Total/NA	Water	300.0	
MB 600-274863/4	Method Blank	Total/NA	Water	300.0	
LCS 600-274863/36	Lab Control Sample	Total/NA	Water	300.0	
LCS 600-274863/5	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 275071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-1	ACW-13	Total/NA	Water	3010A	
600-191777-2	ACW-14	Total/NA	Water	3010A	
600-191777-3	ACW-15	Total/NA	Water	3010A	
600-191777-4	Doom Well	Total/NA	Water	3010A	
600-191777-5	Oxy Well	Total/NA	Water	3010A	
600-191777-6	Dup-01	Total/NA	Water	3010A	
MB 600-275071/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-275071/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 275297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-1	ACW-13	Total/NA	Water	6010B	275071
600-191777-2	ACW-14	Total/NA	Water	6010B	275071
600-191777-3	ACW-15	Total/NA	Water	6010B	275071
600-191777-4	Doom Well	Total/NA	Water	6010B	275071

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QC Association Summary

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Metals (Continued)

Analysis Batch: 275297 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-5	Oxy Well	Total/NA	Water	6010B	275071
600-191777-6	Dup-01	Total/NA	Water	6010B	275071
MB 600-275071/1-A	Method Blank	Total/NA	Water	6010B	275071
LCS 600-275071/2-A	Lab Control Sample	Total/NA	Water	6010B	275071

General Chemistry

Analysis Batch: 274735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-1	ACW-13	Total/NA	Water	120.1	
600-191777-2	ACW-14	Total/NA	Water	120.1	
600-191777-3	ACW-15	Total/NA	Water	120.1	
600-191777-4	Doom Well	Total/NA	Water	120.1	
600-191777-5	Oxy Well	Total/NA	Water	120.1	
600-191777-6	Dup-01	Total/NA	Water	120.1	
MB 600-274735/1	Method Blank	Total/NA	Water	120.1	
LCS 600-274735/2	Lab Control Sample	Total/NA	Water	120.1	
600-191777-2 DU	ACW-14	Total/NA	Water	120.1	

Analysis Batch: 274746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-1	ACW-13	Total/NA	Water	2540 C-1997	
600-191777-2	ACW-14	Total/NA	Water	2540 C-1997	
600-191777-4	Doom Well	Total/NA	Water	2540 C-1997	
600-191777-5	Oxy Well	Total/NA	Water	2540 C-1997	
MB 600-274746/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-274746/2	Lab Control Sample	Total/NA	Water	2540 C-1997	
600-191777-1 DU	ACW-13	Total/NA	Water	2540 C-1997	

Analysis Batch: 274884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-191777-3	ACW-15	Total/NA	Water	2540 C-1997	
600-191777-6	Dup-01	Total/NA	Water	2540 C-1997	
MB 600-274884/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-274884/2	Lab Control Sample	Total/NA	Water	2540 C-1997	
600-191777-6 DU	Dup-01	Total/NA	Water	2540 C-1997	

Lab Chronicle

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Client Sample ID: ACW-13

Date Collected: 09/10/19 09:25

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274470	09/11/19 17:15	KLV	TAL HOU
Total/NA	Analysis	300.0		20	274705	09/13/19 21:54	SKR	TAL HOU
Total/NA	Prep	3010A			275071	09/18/19 09:30	CLD	TAL HOU
Total/NA	Analysis	6010B		1	275297	09/20/19 09:23	KP1	TAL HOU
Total/NA	Analysis	120.1		1	274735	09/13/19 12:45	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	274746	09/13/19 14:12	TNL	TAL HOU

Client Sample ID: ACW-14

Date Collected: 09/10/19 10:40

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274470	09/11/19 17:45	KLV	TAL HOU
Total/NA	Analysis	300.0		50	274863	09/16/19 21:59	SKR	TAL HOU
Total/NA	Prep	3010A			275071	09/18/19 09:30	CLD	TAL HOU
Total/NA	Analysis	6010B		1	275297	09/20/19 09:25	KP1	TAL HOU
Total/NA	Analysis	120.1		1	274735	09/13/19 12:45	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	274746	09/13/19 14:12	TNL	TAL HOU

Client Sample ID: ACW-15

Date Collected: 09/10/19 10:05

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274470	09/11/19 18:15	KLV	TAL HOU
Total/NA	Analysis	300.0		20	274705	09/13/19 22:34	SKR	TAL HOU
Total/NA	Prep	3010A			275071	09/18/19 09:30	CLD	TAL HOU
Total/NA	Analysis	6010B		1	275297	09/20/19 09:33	KP1	TAL HOU
Total/NA	Analysis	120.1		1	274735	09/13/19 12:45	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	274884	09/16/19 13:50	TNL	TAL HOU

Client Sample ID: Doom Well

Date Collected: 09/10/19 10:10

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274470	09/11/19 18:46	KLV	TAL HOU
Total/NA	Analysis	300.0		2	274705	09/13/19 22:54	SKR	TAL HOU
Total/NA	Prep	3010A			275071	09/18/19 09:30	CLD	TAL HOU
Total/NA	Analysis	6010B		1	275297	09/20/19 09:35	KP1	TAL HOU
Total/NA	Analysis	120.1		1	274735	09/13/19 12:45	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	274746	09/13/19 14:12	TNL	TAL HOU

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Lab Chronicle

Client: AECOM
Project/Site: JAL#4 Gas Plant 3Q19

Job ID: 600-191777-1

Client Sample ID: Oxy Well

Date Collected: 09/10/19 09:10

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274470	09/11/19 19:16	KLV	TAL HOU
Total/NA	Analysis	300.0		20	274705	09/13/19 23:54	SKR	TAL HOU
Total/NA	Prep	3010A			275071	09/18/19 09:30	CLD	TAL HOU
Total/NA	Analysis	6010B		1	275297	09/20/19 09:37	KP1	TAL HOU
Total/NA	Analysis	120.1		1	274735	09/13/19 12:45	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	274746	09/13/19 14:12	TNL	TAL HOU

Client Sample ID: Dup-01

Date Collected: 09/10/19 08:00

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274470	09/11/19 19:45	KLV	TAL HOU
Total/NA	Analysis	300.0		5	274705	09/14/19 02:14	SKR	TAL HOU
Total/NA	Prep	3010A			275071	09/18/19 09:30	CLD	TAL HOU
Total/NA	Analysis	6010B		1	275297	09/20/19 09:39	KP1	TAL HOU
Total/NA	Analysis	120.1		1	274735	09/13/19 12:45	KRD	TAL HOU
Total/NA	Analysis	2540 C-1997		1	274884	09/16/19 13:50	TNL	TAL HOU

Client Sample ID: Trip Blank

Date Collected: 09/10/19 00:00

Date Received: 09/11/19 09:30

Lab Sample ID: 600-191777-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	274470	09/11/19 16:46	KLV	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: AECOM

Job ID: 600-191777-1

Project/Site: JAL#4 Gas Plant 3Q19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-18-23	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
120.1		Water	Specific Conductance

Chain of Custody Record



Client Information Client Contact: Mr. Wallace Gilmore Company: AECOM Address: 19219 Katy Freeway Suite 100 City: Houston State Zip: TX, 77094 Phone: 713-520-990(Tel) 713-520-680(Fax) Email: wallace.gilmore@aecom.com Project Name: JAL #4 Gas Plant Site: 3019		Sampler Scott Duran / HMT Team Phone: 281-745-7566		Lab PM McDaniel, Bethany A E-Mail: bethany.mcdaniel@testamerica.com		Carrier Tracking Note(s) 4840 2907 3800		COC No: 600-70840-18744 1 Page: 1 of 1 Job #:	
Analysis Requested									
Due Date Requested: TAT Requested (days): PO # WD801914 (Per TA) WO # Project # 60008415 (Per TA) SSOW#		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 120.1 Cond. 2540C_Calcd-TDS, 300_ORGFM_28D-Cl 6010B - Sodium 8260B_LL - BTEX Only		Total Number of Containers		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Asmchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O/S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Sample Identification ACW-13 ACW-14 ACW-15 Doan Well Oxy Well Dup-b1 Trip Blank		Sample Date 9/10/19 104D 1005 1010 910 800 -		Sample Time 925 104D 1005 1010 910 800 -		Sample Type (C=Comp, G=grab) G - - - - -		Matrix (Water, Solid, On-water) Water Water Water Water Water Water Water	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)									
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/OC Requirements									
Empty Kit Relinquished by Relinquished by: S.H. Duran Relinquished by: Relinquished by: Relinquished by: Custody Seals Intact: ☐ Yes ☐ No Custody Seal No.:									
Method of Shipment Received by: [Signature] Received by: Received by: Cooler Temperature(s) °C and Other Remarks:									

Sample Receipt Checklist

JOB NUMBER:

191777

Date/Time Received:

19 SEP 11 9:31

CLIENT:

AE COM

UNPACKED BY:

ST

CARRIER/DRIVER:

Fedex

Custody Seal Present:

☒ YES☐ NO

Number of Coolers Received:

1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
3800	X / N	X / N	1.1	678	+0.1	1.2
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice?

☒ YES☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED:

☒ NO☐ YES

Base samples are > pH 12:

☐ YES☐ NO

Acid preserved are < pH 2:

☒ YES☐ NO

pH paper Lot #

HC 987808

VOA headspace acceptable (5-6mm):

☒ YES☐ NO☐ NA

YES NO

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES ☐ NO

COMMENTS:

Login Sample Receipt Checklist

Client: AECOM

Job Number: 600-191777-1

Login Number: 191777

List Number: 1

Creator: Torres, Sandra

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	1.2
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 (excluding tests with immediate HTs)	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 $<6\text{mm}$ (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.

Date: February 11, 2020

To: Wally Gilmore, AECOM

CC: Robert Jones, AECOM

From: Ruth Parks, AECOM

Subject: Data Usability Summary for Review of Groundwater Data
Laboratory Report Number 191777
Jal #4 Gas Plant, Jal, New Mexico

Data Usability Summary

Data from TestAmerica in Houston, Texas were reviewed for the analysis of samples collected September 10, 2019 at the Jal #4 Gas Plant in Jal, New Mexico.

Data were reviewed for conformance to the requirements of *SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (SW-846). The purpose of this sampling event was to provide current data on concentrations of potential chemicals of concern (COCs) in groundwater for the Jal #4 Gas Plant property.

Samples were analyzed using:

- SW-846 6010B – Inductively Coupled Plasma – Atomic Emission Spectrometry,
- SW-846 8260B - Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry (GC/MS),
- SW-846 300.0 – Determination of Inorganic Anions by Ion Chromatograph,
- SW-846 120.1 – Conductivity, Specific Conductance, and
- SW-846 2540 C-1997 – Total Dissolved Solids (Dried at 180 C).

Data were reviewed and the results are discussed in this Data Usability Summary (DUS). The reportable data, quality control results, sample receipt checklist and chain-of-custody (C-O-C) records were examined for laboratory report 191777.

Introduction

Groundwater samples, a field duplicate, and a trip blank were analyzed for site-specific metals, volatile organic compounds (VOCs), inorganic anions, specific conductivity, and total dissolved solids (TDS) as requested on the chain-of-custodies (C-O-C). **Table B-1** lists the sample identifications cross-referenced to the laboratory identifications.

Analytical Results

Qualified data are listed in **Table B-2**.

Preservation and Holding Times

All samples were evaluated for agreement with the chain-of-custody (C-O-C). Sample bottles were received in good condition and within the temperature acceptance criteria of $\leq 6^{\circ}\text{C}$. Samples were prepared and analyzed within the holding times specified in SW-846 Table 2-40.

Calibrations

Calibration data were not submitted in this package and are not part of the standard deliverable.

Blanks

The following analytes were detected in blanks:

Sample	Analyte	Blank Type	Concentration (mg/l)	Qualified Concentration (mg/l)
MB 600-272705/35	Chloride	Method	0.190 J	0.95

Groundwater concentrations in associated samples with analyte concentrations $< 5\text{X}$ the blank concentration, except methylene chloride, acetone, 2-butanone, cyclohexane and phthalates which are qualified at $< 10\text{X}$ the blank concentration, are qualified as “U” for organics or “JH” for inorganics and listed in **Table B-2**. No other data were qualified.

Internal Standards and Surrogate Recoveries

Results with internal standard area counts above the laboratory specifications are qualified as “JL” and below specifications are qualified as “JH” for detected results and “UJL” for non-detected results and listed in **Table B-2**.

Laboratory Control Samples

Samples with laboratory control sample (LCS) recoveries (%R) outside of laboratory specifications are qualified as “JL” and “UJL” when below specifications and as “JH” when above specifications and listed in **Table B-2**. If a laboratory control sampled duplicate (LCSD) was analyzed, data with duplicate precision (as relative percent difference [RPD]) outside of laboratory acceptance criteria is qualified as “J” for LCS precision and listed in **Table B-2**.

Matrix Spike (MS)/Matrix Spike Duplicates (MSD)

Non-project sample data were not evaluated. Data with MS/MSD recoveries outside of laboratory specifications are qualified as “JL” for detections and “UJ” for non-detects when below specifications and “JH” when above specifications and listed in **Table B-2**. Sample data with MS/MSD precision (RPD) outside of the laboratory acceptance criteria are qualified as “J” for MS/MSD precision and listed in **Table B-2**.

Field Precision

Precision results for replicate and duplicate samples are summarized in **Table B-3**. Duplicate precision was not calculated for analytes which were reported as non-detect (U) or qualified as

“U” in **Table B-2**. Analytes with non-detect results for both replicate and duplicate were not listed in the table. Field sample and sample duplicate analytes with RPD results outside of the project quality acceptance criteria of $\leq 30\%$ RPD are qualified as estimated “J” and listed in **Table B-2**.

Summary

Groundwater analytical data are usable for the purpose of determining concentrations of metals, VOCs, inorganics anions, specific conductivity, and TDS in samples.

Tables

Table B-1. Cross-Reference Field Sample Identifications and Laboratory Identifications

Field Identification	Laboratory Identification	Comment
ACW-13	600-187272-1	
ACW-14	600-187272-2	
ACW-15	600-187272-3	
Doom Well	600-187272-4	
Oxy Well	600-187272-5	
DUP-01	600-187272-6	Duplicate of ACW-14
Trip Blank	600-187272-7	Trip Blank

Table B-2. Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
ACW-14	Total Dissolved Solids	J	Field Precision RPD
DUP-01	Total Dissolved Solids	J	Field Precision RPD
J – Estimated data; the sample concentration is approximated. H – Bias in sample result is likely high. L – Bias in sample result is likely low. R – Data is rejected. U – Not detected.			

Table B-3. Field Precision

Field Identification	Analyte	Sample Result	Duplicate Result	RPD	Qualified
ACW-14 / DUP-01	Chloride	130	140	7.4	A
	Sodium	110	100	9.5	A
	Specific Conductance	1000	1000	0	A
	TDS	480	660	31.6	J
RPD = ((SR-DR)*200)/(SR+DR) A – Acceptable data B – Metals result from laboratory was estimated (>MDL and <RL) NA – Not applicable J – Estimated data due to inability to meet QC criteria U – Analyte not detected U* – Analyte qualified as non-detect per Table B-2					

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

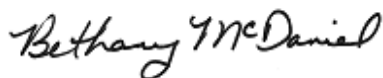
Laboratory Job ID: 600-197820-1

Client Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

For:

AECOM
19219 Katy Freeway
Suite 100
Houston, Texas 77094

Attn: Mr. Wallace Gilmore



Authorized for release by:
1/10/2020 2:08:57 PM

Bethany McDaniel, Senior Project Manager
(713)358-2005
bethany.mcdaniel@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Case Narrative

Client: AECOM
Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Job ID: 600-197820-1

Job ID: 600-197820-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative 600-197820-1

Comments

No additional comments.

Receipt

The samples were received on 12/19/2019 12:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 0.5° C, 1.0° C, 1.0° C, 1.2° C, 1.4° C, 1.5° C and 1.7° C.

GC/MS VOA

Method 8260B: The following samples were diluted due to the nature of the sample matrix: ACW-02A (600-197820-2) and ACW-21 (600-197820-19). Elevated reporting limits (RLs) are provided.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: ACW-01 (600-197820-1), ACW-19 (600-197820-17) and ACW-20 (600-197820-18). Elevated reporting limits (RLs) are provided.

Method 8260B: Surrogate (BFB) recovery for the following samples were outside the upper control limit: ACW-02A (600-197820-2), ACW-18 (600-197820-16) and ACW-24 (600-197820-22). This samples did not contain any target analytes associated with the surrogate; therefore, re-extraction and/or re-analysis was not performed.

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

Metals

Method 3010A: The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: ACW-02A (600-197820-2). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

Method 6010B: The following samples were diluted to bring the concentration of target analytes within the calibration range: ACW-01 (600-197820-1), ACW-02A (600-197820-2), ACW-04 (600-197820-3), ACW-05 (600-197820-4), ACW-06 (600-197820-5), ACW-07 (600-197820-6), ACW-09 (600-197820-7), ACW-10 (600-197820-8), ACW-11 (600-197820-9), ACW-12 (600-197820-10), ACW-16 (600-197820-14), ACW-17 (600-197820-15), ACW-18 (600-197820-16), ACW-19 (600-197820-17), ACW-20 (600-197820-18), ACW-22 (600-197820-20), ACW-23 (600-197820-21), ACW-24 (600-197820-22), ACW-25 (600-197820-23), ACW-27 (600-197820-25), ACW-30D (600-197820-29), ACW-32S (600-197820-30), ENSR-01 (600-197820-33), DUP-02 (600-197820-38), (600-197820-C-1-B DU ^50), (600-197820-C-1-C MS ^50), (600-197820-C-1-D MSD ^50), (600-197820-C-21-B DU ^5), (600-197820-C-21-C MS ^5) and (600-197820-C-21-D MSD ^5). Elevated reporting limits (RLs) are provided.

Method 6010B: The method blank for preparation batch 600-284483 and analytical batch 600-284665 contained Sodium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The method blank for preparation batch 600-284520 and analytical batch 600-284665 contained Sodium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The method blank for preparation batch 600-284484 and analytical batch 600-284764 contained Potassium, Magnesium and Sodium above the method detection limit. These target analytes concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries were outside control limits for preparation batch 600-284764. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries were outside control limits for preparation batch 600-284484. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within

Case Narrative

Client: AECOM
Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Job ID: 600-197820-1

Job ID: 600-197820-1 (Continued)

Laboratory: Eurofins TestAmerica, Houston (Continued)

acceptance limits.

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

General Chemistry

Method SM 2540C: Reanalysis of the following sample was performed outside of the analytical holding time due to sample residue being over acceptable limits. : ACW-11 (600-197820-9).

Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: ACW-04 (600-197820-3) and ACW-20 (600-197820-18). Elevated reporting limits (RLs) are provided.

Method 300.0: The instrument blank for analytical batch 600-284490 contained Chloride greater than the reporting limit (RL), and were not reanalyzed because results were greater than 10X the value found in the instrument blank. The data have been qualified and reported.

Method 300.0: The CCB's and method blanks for analytical batches 600-284378, 600-284420, 600-284475, 600-284490, and 600-284505 contained chloride and/ or sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for chloride were outside control limits for analytical batch 600-284378. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for chloride were outside control limits for analytical batch 600-284475. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 2320B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for alkalinity were outside control limits for analytical batches 600-284000, 600-284052, and 600-284118. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Method Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
6010B	Inductively Coupled Plasma - Atomic Emission Spectrometry	SW846	TAL HOU
120.1	Conductivity, Specific Conductance	MCAWW	TAL HOU
2320B-1997	Alkalinity, Total - SM Online, 2011	SM-Online	TAL HOU
2540 C-1997	Total Dissolved Solids (Dried at 180 °C)	SM	TAL HOU
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU

Protocol References:

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"

SM-Online = Standard Methods Online

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-197820-1	ACW-01	Water	12/18/19 13:35	12/19/19 12:40	
600-197820-2	ACW-02A	Water	12/18/19 13:25	12/19/19 12:40	
600-197820-3	ACW-04	Water	12/18/19 15:05	12/19/19 12:40	
600-197820-4	ACW-05	Water	12/18/19 12:25	12/19/19 12:40	
600-197820-5	ACW-06	Water	12/18/19 11:35	12/19/19 12:40	
600-197820-6	ACW-07	Water	12/18/19 14:55	12/19/19 12:40	
600-197820-7	ACW-09	Water	12/18/19 11:55	12/19/19 12:40	
600-197820-8	ACW-10	Water	12/18/19 13:30	12/19/19 12:40	
600-197820-9	ACW-11	Water	12/18/19 16:00	12/19/19 12:40	
600-197820-10	ACW-12	Water	12/18/19 14:15	12/19/19 12:40	
600-197820-11	ACW-13	Water	12/18/19 15:05	12/19/19 12:40	
600-197820-12	ACW-14	Water	12/18/19 14:05	12/19/19 12:40	
600-197820-13	ACW-15	Water	12/18/19 10:20	12/19/19 12:40	
600-197820-14	ACW-16	Water	12/18/19 11:05	12/19/19 12:40	
600-197820-15	ACW-17	Water	12/18/19 12:10	12/19/19 12:40	
600-197820-16	ACW-18	Water	12/18/19 12:45	12/19/19 12:40	
600-197820-17	ACW-19	Water	12/18/19 15:10	12/19/19 12:40	
600-197820-18	ACW-20	Water	12/18/19 14:20	12/19/19 12:40	
600-197820-19	ACW-21	Water	12/18/19 16:50	12/19/19 12:40	
600-197820-20	ACW-22	Water	12/18/19 12:45	12/19/19 12:40	
600-197820-21	ACW-23	Water	12/18/19 11:10	12/19/19 12:40	
600-197820-22	ACW-24	Water	12/18/19 10:45	12/19/19 12:40	
600-197820-23	ACW-25	Water	12/18/19 13:15	12/19/19 12:40	
600-197820-24	ACW-26	Water	12/18/19 10:55	12/19/19 12:40	
600-197820-25	ACW-27	Water	12/18/19 12:05	12/19/19 12:40	
600-197820-26	ACW-28	Water	12/18/19 10:30	12/19/19 12:40	
600-197820-27	ACW-29	Water	12/18/19 10:15	12/19/19 12:40	
600-197820-28	ACW-30S	Water	12/18/19 09:00	12/19/19 12:40	
600-197820-29	ACW-30D	Water	12/18/19 09:50	12/19/19 12:40	
600-197820-30	ACW-32S	Water	12/18/19 08:50	12/19/19 12:40	
600-197820-31	ACW-32D	Water	12/18/19 09:35	12/19/19 12:40	
600-197820-32	DOOM	Water	12/18/19 13:55	12/19/19 12:40	
600-197820-33	ENSR-01	Water	12/18/19 11:55	12/19/19 12:40	
600-197820-34	EPNG-01	Water	12/18/19 13:10	12/19/19 12:40	
600-197820-35	OXY	Water	12/18/19 14:20	12/19/19 12:40	
600-197820-36	PTP-01	Water	12/18/19 13:15	12/19/19 12:40	
600-197820-37	DUP-01	Water	12/18/19 10:00	12/19/19 12:40	
600-197820-38	DUP-02	Water	12/18/19 12:00	12/19/19 12:40	
600-197820-39	DUP-03	Water	12/18/19 11:00	12/19/19 12:40	
600-197820-40	DUP-04	Water	12/18/19 10:00	12/19/19 12:40	
600-197820-41	Trip Blank-01	Water	12/18/19 00:00	12/19/19 12:40	

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-01

Lab Sample ID: 600-197820-1

Date Collected: 12/18/19 13:35

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.00060	J	0.0010	0.00021	mg/L			12/24/19 11:16	1
Toluene	0.0021		0.0010	0.00020	mg/L			12/24/19 11:16	1
Xylenes, Total	0.00091	J	0.0020	0.00037	mg/L			12/24/19 11:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		50 - 134					12/24/19 11:16	1
Dibromofluoromethane	84		62 - 130					12/24/19 11:16	1
Toluene-d8 (Surr)	98		70 - 130					12/24/19 11:16	1
4-Bromofluorobenzene	124		67 - 139					12/24/19 11:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.16		0.020	0.0035	mg/L			12/25/19 13:04	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		50 - 134					12/25/19 13:04	20
Dibromofluoromethane	98		62 - 130					12/25/19 13:04	20
Toluene-d8 (Surr)	98		70 - 130					12/25/19 13:04	20
4-Bromofluorobenzene	132		67 - 139					12/25/19 13:04	20

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6100	B	200	27	mg/L			12/31/19 16:10	500
Sulfate	<0.50		0.50	0.096	mg/L			01/03/20 08:07	1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	77		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 13:19	1
Potassium	22		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 13:19	1
Magnesium	76		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 13:19	1
Sodium	4000	B	50	1.1	mg/L		01/02/20 10:19	01/08/20 16:01	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	17000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	590		20	20	mg/L			12/24/19 13:08	1
Bicarbonate Alkalinity as CaCO3	590		20	20	mg/L			12/24/19 13:08	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 13:08	1
Total Dissolved Solids	9300		100	100	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-02A

Lab Sample ID: 600-197820-2

Date Collected: 12/18/19 13:25

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0055		0.0050	0.00088	mg/L			12/27/19 03:48	5
Ethylbenzene	0.0017	J	0.0050	0.0011	mg/L			12/27/19 03:48	5
Toluene	0.0016	J	0.0050	0.00099	mg/L			12/27/19 03:48	5
Xylenes, Total	<0.010		0.010	0.0018	mg/L			12/27/19 03:48	5

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-02A

Lab Sample ID: 600-197820-2

Date Collected: 12/18/19 13:25

Matrix: Water

Date Received: 12/19/19 12:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		12/27/19 03:48	5
Dibromofluoromethane	87		62 - 130		12/27/19 03:48	5
Toluene-d8 (Surr)	104		70 - 130		12/27/19 03:48	5
4-Bromofluorobenzene	145	X	67 - 139		12/27/19 03:48	5

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	740	B	100	13	mg/L			12/31/19 10:17	250
Sulfate	49	B	10	1.9	mg/L			01/02/20 07:33	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1.2		1.0	0.024	mg/L		01/04/20 18:12	01/07/20 17:32	1
Potassium	3.5		1.0	0.037	mg/L		01/04/20 18:12	01/07/20 17:32	1
Magnesium	0.44	J	1.0	0.056	mg/L		01/04/20 18:12	01/07/20 17:32	1
Sodium	2600	B	20	0.43	mg/L		01/04/20 18:12	01/08/20 12:06	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	12000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	1300		20	20	mg/L			12/24/19 13:15	1
Bicarbonate Alkalinity as CaCO3	570		20	20	mg/L			12/24/19 13:15	1
Carbonate Alkalinity as CaCO3	760		20	20	mg/L			12/24/19 13:15	1
Total Dissolved Solids	6100		100	100	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-04

Lab Sample ID: 600-197820-3

Date Collected: 12/18/19 15:05

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.030		0.0010	0.00018	mg/L			12/27/19 03:22	1
Ethylbenzene	0.0036		0.0010	0.00021	mg/L			12/27/19 03:22	1
Toluene	0.00069	J	0.0010	0.00020	mg/L			12/27/19 03:22	1
Xylenes, Total	0.0052		0.0020	0.00037	mg/L			12/27/19 03:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		50 - 134		12/27/19 03:22	1
Dibromofluoromethane	98		62 - 130		12/27/19 03:22	1
Toluene-d8 (Surr)	102		70 - 130		12/27/19 03:22	1
4-Bromofluorobenzene	135		67 - 139		12/27/19 03:22	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72000	B ^	4000	530	mg/L			01/02/20 08:05	10000
Sulfate	2400		500	96	mg/L			12/31/19 10:28	1000

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	2800		10	0.24	mg/L		01/02/20 10:19	01/08/20 14:30	10
Potassium	180		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:15	1
Magnesium	1100		10	0.56	mg/L		01/02/20 10:19	01/08/20 14:30	10

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-04

Lab Sample ID: 600-197820-3

Date Collected: 12/18/19 15:05

Matrix: Water

Date Received: 12/19/19 12:40

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	27000	B	500	11	mg/L		01/02/20 10:19	01/09/20 13:40	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	130000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	180		20	20	mg/L			12/24/19 13:20	1
Bicarbonate Alkalinity as CaCO3	180		20	20	mg/L			12/24/19 13:20	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 13:20	1
Total Dissolved Solids	77000		5000	5000	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-05

Lab Sample ID: 600-197820-4

Date Collected: 12/18/19 12:25

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0059		0.0010	0.00018	mg/L			12/25/19 12:36	1
Ethylbenzene	0.00032	J	0.0010	0.00021	mg/L			12/25/19 12:36	1
Toluene	0.00073	J	0.0010	0.00020	mg/L			12/25/19 12:36	1
Xylenes, Total	0.00044	J	0.0020	0.00037	mg/L			12/25/19 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		50 - 134		12/25/19 12:36	1
Dibromofluoromethane	94		62 - 130		12/25/19 12:36	1
Toluene-d8 (Surr)	102		70 - 130		12/25/19 12:36	1
4-Bromofluorobenzene	133		67 - 139		12/25/19 12:36	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	660	B	80	11	mg/L			12/31/19 11:08	200
Sulfate	120		100	19	mg/L			12/31/19 11:08	200

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	460		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:17	1
Potassium	11		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:17	1
Magnesium	68		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:17	1
Sodium	1200	B	10	0.21	mg/L		01/02/20 10:19	01/08/20 14:35	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	7900		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	620		20	20	mg/L			12/24/19 13:26	1
Bicarbonate Alkalinity as CaCO3	620		20	20	mg/L			12/24/19 13:26	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 13:26	1
Total Dissolved Solids	4800		40	40	mg/L			12/24/19 09:53	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-06

Lab Sample ID: 600-197820-5

Date Collected: 12/18/19 11:35

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00025	J	0.0010	0.00018	mg/L			12/25/19 13:33	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/25/19 13:33	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/25/19 13:33	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/25/19 13:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		50 - 134					12/25/19 13:33	1
Dibromofluoromethane	85		62 - 130					12/25/19 13:33	1
Toluene-d8 (Surr)	101		70 - 130					12/25/19 13:33	1
4-Bromofluorobenzene	127		67 - 139					12/25/19 13:33	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200	B	40	5.3	mg/L			12/31/19 11:19	100
Sulfate	55		50	9.6	mg/L			12/31/19 11:19	100

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	7.5		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:19	1
Potassium	1.0		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:19	1
Magnesium	1.3		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:19	1
Sodium	1400	B	10	0.21	mg/L		01/02/20 10:19	01/08/20 16:09	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	6200		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	500		20	20	mg/L			12/24/19 13:31	1
Bicarbonate Alkalinity as CaCO3	430		20	20	mg/L			12/24/19 13:31	1
Carbonate Alkalinity as CaCO3	68		20	20	mg/L			12/24/19 13:31	1
Total Dissolved Solids	3000		40	40	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-07

Lab Sample ID: 600-197820-6

Date Collected: 12/18/19 14:55

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 05:33	1
Ethylbenzene	0.0030		0.0010	0.00021	mg/L			12/27/19 05:33	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 05:33	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 05:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					12/27/19 05:33	1
Dibromofluoromethane	86		62 - 130					12/27/19 05:33	1
Toluene-d8 (Surr)	108		70 - 130					12/27/19 05:33	1
4-Bromofluorobenzene	130		67 - 139					12/27/19 05:33	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	760	B	80	11	mg/L			12/31/19 11:30	200

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-07

Lab Sample ID: 600-197820-6

Date Collected: 12/18/19 14:55

Matrix: Water

Date Received: 12/19/19 12:40

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	38	B	10	1.9	mg/L			01/02/20 08:16	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	91		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:21	1
Potassium	3.7		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:21	1
Magnesium	37		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:21	1
Sodium	2300	B	20	0.43	mg/L		01/02/20 10:19	01/08/20 16:11	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	10000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	930		20	20	mg/L			12/24/19 13:38	1
Bicarbonate Alkalinity as CaCO3	930		20	20	mg/L			12/24/19 13:38	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 13:38	1
Total Dissolved Solids	5200		100	100	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-09

Lab Sample ID: 600-197820-7

Date Collected: 12/18/19 11:55

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 05:59	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 05:59	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 05:59	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 05:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		12/27/19 05:59	1
Dibromofluoromethane	88		62 - 130		12/27/19 05:59	1
Toluene-d8 (Surr)	105		70 - 130		12/27/19 05:59	1
4-Bromofluorobenzene	131		67 - 139		12/27/19 05:59	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000	B	200	27	mg/L			12/31/19 11:41	500
Sulfate	770		250	48	mg/L			12/31/19 11:41	500

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	2400		10	0.24	mg/L		01/02/20 10:19	01/08/20 16:13	10
Potassium	38		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:23	1
Magnesium	730		10	0.56	mg/L		01/02/20 10:19	01/08/20 16:13	10
Sodium	3300	B	50	1.1	mg/L		01/02/20 10:19	01/08/20 16:16	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	27000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	280		20	20	mg/L			12/24/19 13:43	1
Bicarbonate Alkalinity as CaCO3	280		20	20	mg/L			12/24/19 13:43	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-09

Lab Sample ID: 600-197820-7

Date Collected: 12/18/19 11:55

Matrix: Water

Date Received: 12/19/19 12:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 13:43	1
Total Dissolved Solids	24000		200	200	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-10

Lab Sample ID: 600-197820-8

Date Collected: 12/18/19 13:30

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0029		0.0010	0.00018	mg/L			12/27/19 06:25	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 06:25	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 06:25	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 06:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		50 - 134		12/27/19 06:25	1
Dibromofluoromethane	87		62 - 130		12/27/19 06:25	1
Toluene-d8 (Surr)	107		70 - 130		12/27/19 06:25	1
4-Bromofluorobenzene	132		67 - 139		12/27/19 06:25	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1800	B F1	80	11	mg/L			12/31/19 11:51	200
Sulfate	240		100	19	mg/L			12/31/19 11:51	200

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	700		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:26	1
Potassium	17		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:26	1
Magnesium	250		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:26	1
Sodium	410	B	5.0	0.11	mg/L		01/02/20 10:19	01/08/20 16:18	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	7600		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	150		20	20	mg/L			12/24/19 12:15	1
Bicarbonate Alkalinity as CaCO3	150		20	20	mg/L			12/24/19 12:15	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 12:15	1
Total Dissolved Solids	6400		40	40	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-11

Lab Sample ID: 600-197820-9

Date Collected: 12/18/19 16:00

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.022		0.0010	0.00018	mg/L			12/27/19 06:52	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 06:52	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 06:52	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 06:52	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-11

Lab Sample ID: 600-197820-9

Date Collected: 12/18/19 16:00

Matrix: Water

Date Received: 12/19/19 12:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		12/27/19 06:52	1
Dibromofluoromethane	88		62 - 130		12/27/19 06:52	1
Toluene-d8 (Surr)	105		70 - 130		12/27/19 06:52	1
4-Bromofluorobenzene	132		67 - 139		12/27/19 06:52	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23000	B	400	53	mg/L			12/31/19 12:24	1000
Sulfate	820		500	96	mg/L			12/31/19 12:24	1000

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	3800		10	0.24	mg/L		01/02/20 10:19	01/08/20 16:27	10
Potassium	64		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:28	1
Magnesium	1300		10	0.56	mg/L		01/02/20 10:19	01/08/20 16:27	10
Sodium	6700	B	50	1.1	mg/L		01/02/20 10:19	01/08/20 16:30	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	49000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	110		20	20	mg/L			12/24/19 12:20	1
Bicarbonate Alkalinity as CaCO3	110		20	20	mg/L			12/24/19 12:20	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 12:20	1
Total Dissolved Solids	37000	H	5000	5000	mg/L			12/26/19 11:50	1

Client Sample ID: ACW-12

Lab Sample ID: 600-197820-10

Date Collected: 12/18/19 14:15

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 07:18	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 07:18	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 07:18	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 07:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		12/27/19 07:18	1
Dibromofluoromethane	86		62 - 130		12/27/19 07:18	1
Toluene-d8 (Surr)	107		70 - 130		12/27/19 07:18	1
4-Bromofluorobenzene	129		67 - 139		12/27/19 07:18	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100	B	40	5.3	mg/L			12/31/19 12:34	100
Sulfate	180		50	9.6	mg/L			12/31/19 12:34	100

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	580		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:36	1
Potassium	14		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:36	1
Magnesium	170		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:36	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-12

Lab Sample ID: 600-197820-10

Date Collected: 12/18/19 14:15

Matrix: Water

Date Received: 12/19/19 12:40

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	400	B	5.0	0.11	mg/L		01/02/20 10:19	01/08/20 16:20	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	6300		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	240		20	20	mg/L			12/24/19 12:25	1
Bicarbonate Alkalinity as CaCO3	240		20	20	mg/L			12/24/19 12:25	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 12:25	1
Total Dissolved Solids	4700		40	40	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-13

Lab Sample ID: 600-197820-11

Date Collected: 12/18/19 15:05

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 07:44	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 07:44	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 07:44	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 07:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		12/27/19 07:44	1
Dibromofluoromethane	86		62 - 130		12/27/19 07:44	1
Toluene-d8 (Surr)	107		70 - 130		12/27/19 07:44	1
4-Bromofluorobenzene	132		67 - 139		12/27/19 07:44	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	700	B	20	2.7	mg/L			12/31/19 12:45	50
Sulfate	87		25	4.8	mg/L			12/31/19 12:45	50

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	220		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:38	1
Potassium	8.6		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:38	1
Magnesium	59		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:38	1
Sodium	160	B	1.0	0.021	mg/L		01/02/20 10:19	01/08/20 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2600		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	100		20	20	mg/L			12/24/19 12:30	1
Bicarbonate Alkalinity as CaCO3	100		20	20	mg/L			12/24/19 12:30	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 12:30	1
Total Dissolved Solids	2000		20	20	mg/L			12/24/19 09:53	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-14

Lab Sample ID: 600-197820-12

Date Collected: 12/18/19 14:05

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 08:11	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 08:11	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 08:11	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 08:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		12/27/19 08:11	1
Dibromofluoromethane	86		62 - 130		12/27/19 08:11	1
Toluene-d8 (Surr)	106		70 - 130		12/27/19 08:11	1
4-Bromofluorobenzene	131		67 - 139		12/27/19 08:11	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170	B	2.0	0.27	mg/L			12/31/19 13:18	5
Sulfate	120		2.5	0.48	mg/L			12/31/19 13:18	5

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	53		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:46	1
Potassium	5.5		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:46	1
Magnesium	22		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:46	1
Sodium	110	B	1.0	0.021	mg/L		01/02/20 10:19	01/08/20 16:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	150	F1	20	20	mg/L			12/24/19 12:45	1
Bicarbonate Alkalinity as CaCO3	150		20	20	mg/L			12/24/19 12:45	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 12:45	1
Total Dissolved Solids	570		10	10	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-15

Lab Sample ID: 600-197820-13

Date Collected: 12/18/19 10:20

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 08:37	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 08:37	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 08:37	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 08:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		50 - 134		12/27/19 08:37	1
Dibromofluoromethane	88		62 - 130		12/27/19 08:37	1
Toluene-d8 (Surr)	107		70 - 130		12/27/19 08:37	1
4-Bromofluorobenzene	131		67 - 139		12/27/19 08:37	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170	B	4.0	0.53	mg/L			12/31/19 13:28	10

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-15

Lab Sample ID: 600-197820-13

Date Collected: 12/18/19 10:20

Matrix: Water

Date Received: 12/19/19 12:40

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	92		5.0	0.96	mg/L			12/31/19 13:28	10

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	73		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:48	1
Potassium	5.2		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:48	1
Magnesium	26		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:48	1
Sodium	100	B	1.0	0.021	mg/L		01/02/20 10:19	01/08/20 16:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1100		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	150		20	20	mg/L			12/24/19 13:49	1
Bicarbonate Alkalinity as CaCO3	150		20	20	mg/L			12/24/19 13:49	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 13:49	1
Total Dissolved Solids	570		10	10	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-16

Lab Sample ID: 600-197820-14

Date Collected: 12/18/19 11:05

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0023		0.0010	0.00018	mg/L			12/27/19 09:04	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 09:04	1
Toluene	0.00032	J	0.0010	0.00020	mg/L			12/27/19 09:04	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 09:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		12/27/19 09:04	1
Dibromofluoromethane	89		62 - 130		12/27/19 09:04	1
Toluene-d8 (Surr)	99		70 - 130		12/27/19 09:04	1
4-Bromofluorobenzene	128		67 - 139		12/27/19 09:04	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000	B	200	27	mg/L			12/31/19 13:39	500
Sulfate	<0.50		0.50	0.096	mg/L			01/03/20 07:34	1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1200		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:50	1
Potassium	39		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:50	1
Magnesium	480		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:50	1
Sodium	4600	B	50	1.1	mg/L		01/02/20 10:19	01/09/20 14:30	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	28000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	98		20	20	mg/L			12/24/19 13:01	1
Bicarbonate Alkalinity as CaCO3	98		20	20	mg/L			12/24/19 13:01	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-16

Lab Sample ID: 600-197820-14

Date Collected: 12/18/19 11:05

Matrix: Water

Date Received: 12/19/19 12:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 13:01	1
Total Dissolved Solids	21000		200	200	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-17

Lab Sample ID: 600-197820-15

Date Collected: 12/18/19 12:10

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 09:30	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 09:30	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 09:30	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		12/27/19 09:30	1
Dibromofluoromethane	80		62 - 130		12/27/19 09:30	1
Toluene-d8 (Surr)	98		70 - 130		12/27/19 09:30	1
4-Bromofluorobenzene	130		67 - 139		12/27/19 09:30	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5900	B	200	27	mg/L			12/31/19 13:50	500
Sulfate	<0.50		0.50	0.096	mg/L			01/03/20 07:45	1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	840		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 15:52	1
Potassium	24		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:52	1
Magnesium	420		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 15:52	1
Sodium	1900	B	10	0.21	mg/L		01/02/20 10:19	01/08/20 16:45	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	16000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	170	F1	20	20	mg/L			12/24/19 11:33	1
Bicarbonate Alkalinity as CaCO3	170		20	20	mg/L			12/24/19 11:33	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 11:33	1
Total Dissolved Solids	12000		100	100	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-18

Lab Sample ID: 600-197820-16

Date Collected: 12/18/19 12:45

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00058	J	0.0010	0.00018	mg/L			12/27/19 09:56	1
Ethylbenzene	0.00026	J	0.0010	0.00021	mg/L			12/27/19 09:56	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 09:56	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 09:56	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-18

Lab Sample ID: 600-197820-16

Date Collected: 12/18/19 12:45

Matrix: Water

Date Received: 12/19/19 12:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		50 - 134		12/27/19 09:56	1
Dibromofluoromethane	93		62 - 130		12/27/19 09:56	1
Toluene-d8 (Surr)	99		70 - 130		12/27/19 09:56	1
4-Bromofluorobenzene	140	X	67 - 139		12/27/19 09:56	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58000	B ^	4000	530	mg/L			01/02/20 08:48	10000
Sulfate	1600		500	96	mg/L			12/31/19 14:01	1000

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	2600		10	0.24	mg/L		01/02/20 10:19	01/08/20 16:53	10
Potassium	120		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 15:54	1
Magnesium	950		10	0.56	mg/L		01/02/20 10:19	01/08/20 16:53	10
Sodium	20000	B	500	11	mg/L		01/02/20 10:19	01/09/20 14:32	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	100000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	84		20	20	mg/L			12/24/19 11:48	1
Bicarbonate Alkalinity as CaCO3	84		20	20	mg/L			12/24/19 11:48	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 11:48	1
Total Dissolved Solids	71000		5000	5000	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-19

Lab Sample ID: 600-197820-17

Date Collected: 12/18/19 15:10

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.0091		0.0010	0.00021	mg/L			12/25/19 09:54	1
Toluene	0.0032		0.0010	0.00020	mg/L			12/25/19 09:54	1
Xylenes, Total	0.0062		0.0020	0.00037	mg/L			12/25/19 09:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		12/25/19 09:54	1
Dibromofluoromethane	80		62 - 130		12/25/19 09:54	1
Toluene-d8 (Surr)	107		70 - 130		12/25/19 09:54	1
4-Bromofluorobenzene	131		67 - 139		12/25/19 09:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.052		0.0050	0.00088	mg/L			12/27/19 04:40	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		12/27/19 04:40	5
Dibromofluoromethane	86		62 - 130		12/27/19 04:40	5
Toluene-d8 (Surr)	105		70 - 130		12/27/19 04:40	5
4-Bromofluorobenzene	133		67 - 139		12/27/19 04:40	5

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-19

Lab Sample ID: 600-197820-17

Date Collected: 12/18/19 15:10

Matrix: Water

Date Received: 12/19/19 12:40

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1300	B	40	5.3	mg/L			12/31/19 14:11	100
Sulfate	<0.50		0.50	0.096	mg/L			01/03/20 07:56	1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	190		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 16:07	1
Potassium	6.8		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 16:07	1
Magnesium	93		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 16:07	1
Sodium	820	B	10	0.21	mg/L		01/02/20 10:19	01/08/20 16:58	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	5200		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	700	F1	20	20	mg/L			12/24/19 14:31	1
Bicarbonate Alkalinity as CaCO3	700		20	20	mg/L			12/24/19 14:31	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 14:31	1
Total Dissolved Solids	2500		40	40	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-20

Lab Sample ID: 600-197820-18

Date Collected: 12/18/19 14:20

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.0087		0.0010	0.00021	mg/L			12/25/19 10:20	1
Toluene	0.011		0.0010	0.00020	mg/L			12/25/19 10:20	1
Xylenes, Total	0.0064		0.0020	0.00037	mg/L			12/25/19 10:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		50 - 134		12/25/19 10:20	1
Dibromofluoromethane	90		62 - 130		12/25/19 10:20	1
Toluene-d8 (Surr)	100		70 - 130		12/25/19 10:20	1
4-Bromofluorobenzene	130		67 - 139		12/25/19 10:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0069		0.0050	0.00088	mg/L			12/27/19 05:07	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		12/27/19 05:07	5
Dibromofluoromethane	89		62 - 130		12/27/19 05:07	5
Toluene-d8 (Surr)	105		70 - 130		12/27/19 05:07	5
4-Bromofluorobenzene	131		67 - 139		12/27/19 05:07	5

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81000	B ^	4000	530	mg/L			01/02/20 09:31	10000
Sulfate	2900		500	96	mg/L			12/31/19 14:22	1000

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1500		10	0.24	mg/L		01/02/20 10:19	01/08/20 17:00	10

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-20

Lab Sample ID: 600-197820-18

Date Collected: 12/18/19 14:20

Matrix: Water

Date Received: 12/19/19 12:40

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	380		10	0.37	mg/L		01/02/20 10:19	01/08/20 17:00	10
Magnesium	430		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 16:09	1
Sodium	42000	B	500	11	mg/L		01/02/20 10:19	01/09/20 15:40	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	150000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	300		20	20	mg/L			12/24/19 14:49	1
Bicarbonate Alkalinity as CaCO3	300		20	20	mg/L			12/24/19 14:49	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 14:49	1
Total Dissolved Solids	82000		5000	5000	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-21

Lab Sample ID: 600-197820-19

Date Collected: 12/18/19 16:50

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.022		0.0050	0.00088	mg/L			12/27/19 04:14	5
Ethylbenzene	0.018		0.0050	0.0011	mg/L			12/27/19 04:14	5
Toluene	0.00099	J	0.0050	0.00099	mg/L			12/27/19 04:14	5
Xylenes, Total	0.0055	J	0.010	0.0018	mg/L			12/27/19 04:14	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		12/27/19 04:14	5
Dibromofluoromethane	85		62 - 130		12/27/19 04:14	5
Toluene-d8 (Surr)	105		70 - 130		12/27/19 04:14	5
4-Bromofluorobenzene	136		67 - 139		12/27/19 04:14	5

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320	B	8.0	1.1	mg/L			12/31/19 14:54	20
Sulfate	0.31	J B	0.50	0.096	mg/L			01/02/20 09:42	1

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 16:11	1
Potassium	2.5		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 16:11	1
Magnesium	59		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 16:11	1
Sodium	120	B	1.0	0.021	mg/L		01/02/20 10:19	01/08/20 17:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	550		20	20	mg/L			12/24/19 14:55	1
Bicarbonate Alkalinity as CaCO3	550		20	20	mg/L			12/24/19 14:55	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 14:55	1
Total Dissolved Solids	1100		20	20	mg/L			12/24/19 09:53	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-22

Lab Sample ID: 600-197820-20

Date Collected: 12/18/19 12:45

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/25/19 11:14	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/25/19 11:14	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/25/19 11:14	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/25/19 11:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		12/25/19 11:14	1
Dibromofluoromethane	86		62 - 130		12/25/19 11:14	1
Toluene-d8 (Surr)	107		70 - 130		12/25/19 11:14	1
4-Bromofluorobenzene	129		67 - 139		12/25/19 11:14	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	420	B	8.0	1.1	mg/L			12/31/19 15:27	20
Sulfate	16	B	10	1.9	mg/L			12/31/19 15:27	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 16:13	1
Potassium	6.4		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 16:13	1
Magnesium	26		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 16:13	1
Sodium	310	B	5.0	0.11	mg/L		01/02/20 10:19	01/08/20 17:06	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2200		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	530		20	20	mg/L			12/24/19 15:01	1
Bicarbonate Alkalinity as CaCO3	530		20	20	mg/L			12/24/19 15:01	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 15:01	1
Total Dissolved Solids	1200		20	20	mg/L			12/24/19 09:53	1

Client Sample ID: ACW-23

Lab Sample ID: 600-197820-21

Date Collected: 12/18/19 11:10

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 10:23	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 10:23	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 10:23	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 10:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		12/27/19 10:23	1
Dibromofluoromethane	86		62 - 130		12/27/19 10:23	1
Toluene-d8 (Surr)	104		70 - 130		12/27/19 10:23	1
4-Bromofluorobenzene	135		67 - 139		12/27/19 10:23	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	630	B	20	2.7	mg/L			12/31/19 15:59	50

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-23

Lab Sample ID: 600-197820-21

Date Collected: 12/18/19 11:10

Matrix: Water

Date Received: 12/19/19 12:40

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	300	B	25	4.8	mg/L			12/31/19 15:59	50

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 16:21	1
Potassium	11	B	1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:21	1
Magnesium	78	B	1.0	0.056	mg/L		01/02/20 10:22	01/07/20 16:21	1
Sodium	350	B	5.0	0.11	mg/L		01/02/20 10:22	01/08/20 15:13	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	3300		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	320		20	20	mg/L			12/24/19 15:06	1
Bicarbonate Alkalinity as CaCO3	320		20	20	mg/L			12/24/19 15:06	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 15:06	1
Total Dissolved Solids	1900		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-24

Lab Sample ID: 600-197820-22

Date Collected: 12/18/19 10:45

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0021		0.0010	0.00018	mg/L			12/27/19 10:50	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 10:50	1
Toluene	0.00027	J	0.0010	0.00020	mg/L			12/27/19 10:50	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 10:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		50 - 134		12/27/19 10:50	1
Dibromofluoromethane	94		62 - 130		12/27/19 10:50	1
Toluene-d8 (Surr)	84		70 - 130		12/27/19 10:50	1
4-Bromofluorobenzene	148	X	67 - 139		12/27/19 10:50	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69000	B ^	4000	530	mg/L			01/02/20 10:25	10000
Sulfate	1900		500	96	mg/L			01/01/20 02:08	1000

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	2800		10	0.24	mg/L		01/02/20 10:22	01/08/20 15:21	10
Potassium	150		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:35	1
Magnesium	960	B	10	0.56	mg/L		01/02/20 10:22	01/08/20 15:21	10
Sodium	33000	B	500	11	mg/L		01/02/20 10:22	01/09/20 18:23	500

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	120000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	330		20	20	mg/L			12/24/19 15:12	1
Bicarbonate Alkalinity as CaCO3	330		20	20	mg/L			12/24/19 15:12	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-24

Lab Sample ID: 600-197820-22

Date Collected: 12/18/19 10:45

Matrix: Water

Date Received: 12/19/19 12:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO ₃	<20		20	20	mg/L			12/24/19 15:12	1
Total Dissolved Solids	72000		5000	5000	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-25

Lab Sample ID: 600-197820-23

Date Collected: 12/18/19 13:15

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.024		0.0010	0.00018	mg/L			12/27/19 11:16	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 11:16	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 11:16	1
Xylenes, Total	0.00044	J	0.0020	0.00037	mg/L			12/27/19 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		50 - 134		12/27/19 11:16	1
Dibromofluoromethane	88		62 - 130		12/27/19 11:16	1
Toluene-d8 (Surr)	102		70 - 130		12/27/19 11:16	1
4-Bromofluorobenzene	136		67 - 139		12/27/19 11:16	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23000	B	400	53	mg/L			01/01/20 02:29	1000
Sulfate	700		500	96	mg/L			01/01/20 02:29	1000

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	3600		10	0.24	mg/L		01/02/20 10:22	01/08/20 15:25	10
Potassium	62		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:37	1
Magnesium	1200	B	10	0.56	mg/L		01/02/20 10:22	01/08/20 15:25	10
Sodium	6600	B	50	1.1	mg/L		01/02/20 10:22	01/08/20 15:27	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	45000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	120		20	20	mg/L			12/24/19 15:17	1
Bicarbonate Alkalinity as CaCO₃	120		20	20	mg/L			12/24/19 15:17	1
Carbonate Alkalinity as CaCO ₃	<20		20	20	mg/L			12/24/19 15:17	1
Total Dissolved Solids	42000		500	500	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-26

Lab Sample ID: 600-197820-24

Date Collected: 12/18/19 10:55

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 11:43	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 11:43	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 11:43	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 11:43	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-26

Lab Sample ID: 600-197820-24

Date Collected: 12/18/19 10:55

Matrix: Water

Date Received: 12/19/19 12:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		12/27/19 11:43	1
Dibromofluoromethane	86		62 - 130		12/27/19 11:43	1
Toluene-d8 (Surr)	104		70 - 130		12/27/19 11:43	1
4-Bromofluorobenzene	137		67 - 139		12/27/19 11:43	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260	B	8.0	1.1	mg/L			01/01/20 02:49	20
Sulfate	93		10	1.9	mg/L			01/01/20 02:49	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	75		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 16:39	1
Potassium	3.3		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:39	1
Magnesium	12		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 16:39	1
Sodium	170	B	1.0	0.021	mg/L		01/02/20 10:22	01/08/20 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1300		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	200		20	20	mg/L			12/24/19 15:22	1
Bicarbonate Alkalinity as CaCO3	200		20	20	mg/L			12/24/19 15:22	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 15:22	1
Total Dissolved Solids	600		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-27

Lab Sample ID: 600-197820-25

Date Collected: 12/18/19 12:05

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00050	J	0.0010	0.00018	mg/L			12/28/19 17:29	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 17:29	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 17:29	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		50 - 134		12/28/19 17:29	1
Dibromofluoromethane	86		62 - 130		12/28/19 17:29	1
Toluene-d8 (Surr)	102		70 - 130		12/28/19 17:29	1
4-Bromofluorobenzene	135		67 - 139		12/28/19 17:29	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200	B	40	5.3	mg/L			01/01/20 03:09	100
Sulfate	91		50	9.6	mg/L			01/01/20 03:09	100

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	310		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 16:41	1
Potassium	8.8		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:41	1
Magnesium	98		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 16:41	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-27

Lab Sample ID: 600-197820-25

Date Collected: 12/18/19 12:05

Matrix: Water

Date Received: 12/19/19 12:40

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	330	B	5.0	0.11	mg/L		01/02/20 10:22	01/08/20 15:37	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	4100		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	220		20	20	mg/L			12/24/19 15:28	1
Bicarbonate Alkalinity as CaCO3	220		20	20	mg/L			12/24/19 15:28	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 15:28	1
Total Dissolved Solids	3200		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-28

Lab Sample ID: 600-197820-26

Date Collected: 12/18/19 10:30

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 06:04	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 06:04	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 06:04	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 06:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		12/28/19 06:04	1
Dibromofluoromethane	85		62 - 130		12/28/19 06:04	1
Toluene-d8 (Surr)	108		70 - 130		12/28/19 06:04	1
4-Bromofluorobenzene	127		67 - 139		12/28/19 06:04	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54	B ^	8.0	1.1	mg/L			01/03/20 08:39	20
Sulfate	55		10	1.9	mg/L			01/03/20 08:39	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	71		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 16:43	1
Potassium	3.9		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:43	1
Magnesium	11		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 16:43	1
Sodium	79	B	1.0	0.021	mg/L		01/02/20 10:22	01/08/20 15:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	820		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	170		20	20	mg/L			12/24/19 15:33	1
Bicarbonate Alkalinity as CaCO3	170		20	20	mg/L			12/24/19 15:33	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 15:33	1
Total Dissolved Solids	450		10	10	mg/L			12/24/19 11:51	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-29

Lab Sample ID: 600-197820-27

Date Collected: 12/18/19 10:15

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 06:30	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 06:30	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 06:30	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 06:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	85		50 - 134					12/28/19 06:30	1
Dibromofluoromethane	85		62 - 130					12/28/19 06:30	1
Toluene-d8 (Surr)	107		70 - 130					12/28/19 06:30	1
4-Bromofluorobenzene	127		67 - 139					12/28/19 06:30	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44	B ^	0.80	0.11	mg/L			01/02/20 10:47	2
Sulfate	110		10	1.9	mg/L			01/03/20 08:50	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	44		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 16:45	1
Potassium	4.4		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:45	1
Magnesium	15		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 16:45	1
Sodium	83	B	1.0	0.021	mg/L		01/02/20 10:22	01/08/20 15:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	730		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	170		20	20	mg/L			12/26/19 10:25	1
Bicarbonate Alkalinity as CaCO3	170		20	20	mg/L			12/26/19 10:25	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 10:25	1
Total Dissolved Solids	390		10	10	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-30S

Lab Sample ID: 600-197820-28

Date Collected: 12/18/19 09:00

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 06:56	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 06:56	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 06:56	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 06:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		50 - 134					12/28/19 06:56	1
Dibromofluoromethane	85		62 - 130					12/28/19 06:56	1
Toluene-d8 (Surr)	106		70 - 130					12/28/19 06:56	1
4-Bromofluorobenzene	127		67 - 139					12/28/19 06:56	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130	B ^	8.0	1.1	mg/L			01/03/20 09:00	20

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-30S

Lab Sample ID: 600-197820-28

Date Collected: 12/18/19 09:00

Matrix: Water

Date Received: 12/19/19 12:40

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	71	B	1.0	0.19	mg/L			01/02/20 10:58	2

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	80		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 16:47	1
Potassium	3.2		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:47	1
Magnesium	9.6		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 16:47	1
Sodium	72	B	1.0	0.021	mg/L		01/02/20 10:22	01/08/20 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	820		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	150		20	20	mg/L			12/26/19 10:42	1
Bicarbonate Alkalinity as CaCO3	150		20	20	mg/L			12/26/19 10:42	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 10:42	1
Total Dissolved Solids	470		10	10	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-30D

Lab Sample ID: 600-197820-29

Date Collected: 12/18/19 09:50

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0015		0.0010	0.00018	mg/L			12/28/19 07:23	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 07:23	1
Toluene	0.00037	J	0.0010	0.00020	mg/L			12/28/19 07:23	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 07:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		12/28/19 07:23	1
Dibromofluoromethane	89		62 - 130		12/28/19 07:23	1
Toluene-d8 (Surr)	104		70 - 130		12/28/19 07:23	1
4-Bromofluorobenzene	128		67 - 139		12/28/19 07:23	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19000	B	400	53	mg/L			01/02/20 11:30	1000
Sulfate	970	B	500	96	mg/L			01/02/20 11:30	1000

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	3300		10	0.24	mg/L		01/02/20 10:22	01/08/20 15:45	10
Potassium	51		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:55	1
Magnesium	1000	B	10	0.56	mg/L		01/02/20 10:22	01/08/20 15:45	10
Sodium	6100	B	50	1.1	mg/L		01/02/20 10:22	01/08/20 15:47	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	40000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	190		20	20	mg/L			12/26/19 10:47	1
Bicarbonate Alkalinity as CaCO3	190		20	20	mg/L			12/26/19 10:47	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-30D

Lab Sample ID: 600-197820-29

Date Collected: 12/18/19 09:50

Matrix: Water

Date Received: 12/19/19 12:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 10:47	1
Total Dissolved Solids	39000		200	200	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-32S

Lab Sample ID: 600-197820-30

Date Collected: 12/18/19 08:50

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 07:49	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 07:49	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 07:49	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 07:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		12/28/19 07:49	1
Dibromofluoromethane	86		62 - 130		12/28/19 07:49	1
Toluene-d8 (Surr)	107		70 - 130		12/28/19 07:49	1
4-Bromofluorobenzene	126		67 - 139		12/28/19 07:49	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	780	B	40	5.3	mg/L			01/02/20 11:41	100
Sulfate	160	B	50	9.6	mg/L			01/02/20 11:41	100

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	440		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 16:58	1
Potassium	12		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 16:58	1
Magnesium	11		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 16:58	1
Sodium	290	B	5.0	0.11	mg/L		01/02/20 10:22	01/08/20 15:49	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	3900		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	65		20	20	mg/L			12/26/19 10:51	1
Bicarbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 10:51	1
Carbonate Alkalinity as CaCO3	48		20	20	mg/L			12/26/19 10:51	1
Total Dissolved Solids	3400		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: ACW-32D

Lab Sample ID: 600-197820-31

Date Collected: 12/18/19 09:35

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 08:16	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 08:16	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 08:16	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 08:16	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-32D

Lab Sample ID: 600-197820-31

Date Collected: 12/18/19 09:35

Matrix: Water

Date Received: 12/19/19 12:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		12/28/19 08:16	1
Dibromofluoromethane	86		62 - 130		12/28/19 08:16	1
Toluene-d8 (Surr)	107		70 - 130		12/28/19 08:16	1
4-Bromofluorobenzene	130		67 - 139		12/28/19 08:16	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260	B	8.0	1.1	mg/L			01/02/20 11:52	20
Sulfate	120	B	10	1.9	mg/L			01/02/20 11:52	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:00	1
Potassium	7.9		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:00	1
Magnesium	48		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:00	1
Sodium	120		1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1500		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	190		20	20	mg/L			12/26/19 10:56	1
Bicarbonate Alkalinity as CaCO3	190		20	20	mg/L			12/26/19 10:56	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 10:56	1
Total Dissolved Solids	850		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: DOOM

Lab Sample ID: 600-197820-32

Date Collected: 12/18/19 13:55

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 08:42	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 08:42	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 08:42	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 08:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		50 - 134		12/28/19 08:42	1
Dibromofluoromethane	86		62 - 130		12/28/19 08:42	1
Toluene-d8 (Surr)	105		70 - 130		12/28/19 08:42	1
4-Bromofluorobenzene	131		67 - 139		12/28/19 08:42	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33	B	0.40	0.053	mg/L			01/02/20 12:02	1
Sulfate	74		10	1.9	mg/L			01/03/20 09:11	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	43		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:07	1
Potassium	3.7		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:07	1
Magnesium	15		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:07	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: DOOM

Lab Sample ID: 600-197820-32

Date Collected: 12/18/19 13:55

Matrix: Water

Date Received: 12/19/19 12:40

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	62		1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	650		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	180		20	20	mg/L			12/26/19 11:02	1
Bicarbonate Alkalinity as CaCO3	180		20	20	mg/L			12/26/19 11:02	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 11:02	1
Total Dissolved Solids	370		10	10	mg/L			12/24/19 11:51	1

Client Sample ID: ENSR-01

Lab Sample ID: 600-197820-33

Date Collected: 12/18/19 11:55

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.017		0.0010	0.00018	mg/L			12/28/19 17:02	1
Ethylbenzene	0.0027		0.0010	0.00021	mg/L			12/28/19 17:02	1
Toluene	0.00059	J	0.0010	0.00020	mg/L			12/28/19 17:02	1
Xylenes, Total	0.0014	J	0.0020	0.00037	mg/L			12/28/19 17:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		12/28/19 17:02	1
Dibromofluoromethane	88		62 - 130		12/28/19 17:02	1
Toluene-d8 (Surr)	99		70 - 130		12/28/19 17:02	1
4-Bromofluorobenzene	132		67 - 139		12/28/19 17:02	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3800	B	200	27	mg/L			01/02/20 12:13	500
Sulfate	12	J	25	4.8	mg/L			01/03/20 09:43	50

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	280		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:09	1
Potassium	33		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:09	1
Magnesium	120		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:09	1
Sodium	3600	B	50	1.1	mg/L		01/02/20 10:22	01/08/20 15:51	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	19000		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	390		20	20	mg/L			12/26/19 11:08	1
Bicarbonate Alkalinity as CaCO3	390		20	20	mg/L			12/26/19 11:08	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 11:08	1
Total Dissolved Solids	11000		200	200	mg/L			12/24/19 11:51	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: EPNG-01

Lab Sample ID: 600-197820-34

Date Collected: 12/18/19 13:10

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 09:36	1
Ethylbenzene	0.00022	J	0.0010	0.00021	mg/L			12/28/19 09:36	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 09:36	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 09:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		12/28/19 09:36	1
Dibromofluoromethane	86		62 - 130		12/28/19 09:36	1
Toluene-d8 (Surr)	105		70 - 130		12/28/19 09:36	1
4-Bromofluorobenzene	139		67 - 139		12/28/19 09:36	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	180	B	4.0	0.53	mg/L			01/02/20 12:24	10
Sulfate	180	B	5.0	0.96	mg/L			01/02/20 12:24	10

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	60		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:11	1
Potassium	6.8		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:11	1
Magnesium	45		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:11	1
Sodium	99		1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1200		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	140		20	20	mg/L			12/26/19 11:13	1
Bicarbonate Alkalinity as CaCO3	140		20	20	mg/L			12/26/19 11:13	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 11:13	1
Total Dissolved Solids	640		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: OXY

Lab Sample ID: 600-197820-35

Date Collected: 12/18/19 14:20

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 10:03	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 10:03	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 10:03	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 10:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		12/28/19 10:03	1
Dibromofluoromethane	84		62 - 130		12/28/19 10:03	1
Toluene-d8 (Surr)	103		70 - 130		12/28/19 10:03	1
4-Bromofluorobenzene	133		67 - 139		12/28/19 10:03	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	280	B	8.0	1.1	mg/L			01/02/20 12:35	20

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: OXY

Lab Sample ID: 600-197820-35

Date Collected: 12/18/19 14:20

Matrix: Water

Date Received: 12/19/19 12:40

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	90	B	10	1.9	mg/L			01/02/20 12:35	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:13	1
Potassium	7.3		1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:13	1
Magnesium	43		1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:13	1
Sodium	100		1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1600		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	290		20	20	mg/L			12/26/19 11:18	1
Bicarbonate Alkalinity as CaCO3	290		20	20	mg/L			12/26/19 11:18	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 11:18	1
Total Dissolved Solids	840		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: PTP-01

Lab Sample ID: 600-197820-36

Date Collected: 12/18/19 13:15

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0011		0.0010	0.00018	mg/L			12/28/19 10:30	1
Ethylbenzene	0.0023		0.0010	0.00021	mg/L			12/28/19 10:30	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 10:30	1
Xylenes, Total	0.0046		0.0020	0.00037	mg/L			12/28/19 10:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		12/28/19 10:30	1
Dibromofluoromethane	83		62 - 130		12/28/19 10:30	1
Toluene-d8 (Surr)	97		70 - 130		12/28/19 10:30	1
4-Bromofluorobenzene	134		67 - 139		12/28/19 10:30	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	430	B	8.0	1.1	mg/L			01/02/20 13:07	20
Sulfate	<10		10	1.9	mg/L			01/02/20 13:07	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:21	1
Potassium	4.9	B	1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:21	1
Magnesium	58	B	1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:21	1
Sodium	160	B	1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2100		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	390		20	20	mg/L			12/26/19 11:24	1
Bicarbonate Alkalinity as CaCO3	390		20	20	mg/L			12/26/19 11:24	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: PTP-01

Lab Sample ID: 600-197820-36

Date Collected: 12/18/19 13:15

Matrix: Water

Date Received: 12/19/19 12:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 11:24	1
Total Dissolved Solids	1300		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: DUP-01

Lab Sample ID: 600-197820-37

Date Collected: 12/18/19 10:00

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 10:57	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 10:57	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 10:57	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 10:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		12/28/19 10:57	1
Dibromofluoromethane	85		62 - 130		12/28/19 10:57	1
Toluene-d8 (Surr)	101		70 - 130		12/28/19 10:57	1
4-Bromofluorobenzene	137		67 - 139		12/28/19 10:57	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	230	B	8.0	1.1	mg/L			01/02/20 13:39	20
Sulfate	89		10	1.9	mg/L			01/02/20 13:39	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	75		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:23	1
Potassium	3.0	B	1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:23	1
Magnesium	11	B	1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:23	1
Sodium	160	B	1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1300		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	200	F1	20	20	mg/L			12/26/19 11:39	1
Bicarbonate Alkalinity as CaCO3	200		20	20	mg/L			12/26/19 11:39	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 11:39	1
Total Dissolved Solids	640		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: DUP-02

Lab Sample ID: 600-197820-38

Date Collected: 12/18/19 12:00

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00050	J	0.0010	0.00018	mg/L			12/28/19 11:24	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 11:24	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 11:24	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 11:24	1

Eurofins TestAmerica, Houston

Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: DUP-02

Lab Sample ID: 600-197820-38

Date Collected: 12/18/19 12:00

Matrix: Water

Date Received: 12/19/19 12:40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		12/28/19 11:24	1
Dibromofluoromethane	85		62 - 130		12/28/19 11:24	1
Toluene-d8 (Surr)	101		70 - 130		12/28/19 11:24	1
4-Bromofluorobenzene	133		67 - 139		12/28/19 11:24	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200	B	40	5.3	mg/L			01/02/20 14:12	100
Sulfate	140		50	9.6	mg/L			01/02/20 14:12	100

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	300		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:25	1
Potassium	8.4	B	1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:25	1
Magnesium	98	B	1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:25	1
Sodium	340	B	5.0	0.11	mg/L		01/02/20 10:22	01/08/20 15:53	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	4100		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	210		20	20	mg/L			12/26/19 11:56	1
Bicarbonate Alkalinity as CaCO3	210		20	20	mg/L			12/26/19 11:56	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 11:56	1
Total Dissolved Solids	3200		20	20	mg/L			12/24/19 11:51	1

Client Sample ID: DUP-03

Lab Sample ID: 600-197820-39

Date Collected: 12/18/19 11:00

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 11:51	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 11:51	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 11:51	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 11:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		50 - 134		12/28/19 11:51	1
Dibromofluoromethane	86		62 - 130		12/28/19 11:51	1
Toluene-d8 (Surr)	104		70 - 130		12/28/19 11:51	1
4-Bromofluorobenzene	132		67 - 139		12/28/19 11:51	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	84	B ^	8.0	1.1	mg/L			01/03/20 10:05	20
Sulfate	95		10	1.9	mg/L			01/03/20 10:05	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	70		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:28	1
Potassium	3.8	B	1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:28	1
Magnesium	11	B	1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:28	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: DUP-03

Lab Sample ID: 600-197820-39

Date Collected: 12/18/19 11:00

Matrix: Water

Date Received: 12/19/19 12:40

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	74	B	1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	810		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	160		20	20	mg/L			12/26/19 12:01	1
Bicarbonate Alkalinity as CaCO3	160		20	20	mg/L			12/26/19 12:01	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 12:01	1
Total Dissolved Solids	440		10	10	mg/L			12/24/19 11:51	1

Client Sample ID: DUP-04

Lab Sample ID: 600-197820-40

Date Collected: 12/18/19 10:00

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 12:19	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 12:19	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 12:19	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 12:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		12/28/19 12:19	1
Dibromofluoromethane	86		62 - 130		12/28/19 12:19	1
Toluene-d8 (Surr)	103		70 - 130		12/28/19 12:19	1
4-Bromofluorobenzene	131		67 - 139		12/28/19 12:19	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41	B	0.80	0.11	mg/L			01/02/20 14:33	2
Sulfate	110		10	1.9	mg/L			01/03/20 10:16	20

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	44		1.0	0.024	mg/L		01/02/20 10:22	01/07/20 17:30	1
Potassium	4.3	B	1.0	0.037	mg/L		01/02/20 10:22	01/07/20 17:30	1
Magnesium	15	B	1.0	0.056	mg/L		01/02/20 10:22	01/07/20 17:30	1
Sodium	77	B	1.0	0.021	mg/L		01/02/20 10:22	01/07/20 17:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	730		2.0	1.3	umhos/cm			12/28/19 18:35	1
Alkalinity	170		20	20	mg/L			12/26/19 12:07	1
Bicarbonate Alkalinity as CaCO3	170		20	20	mg/L			12/26/19 12:07	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 12:07	1
Total Dissolved Solids	410		10	10	mg/L			12/24/19 11:51	1

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Client Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: Trip Blank-01

Lab Sample ID: 600-197820-41

Date Collected: 12/18/19 00:00

Matrix: Water

Date Received: 12/19/19 12:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 03:52	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 03:52	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 03:52	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 03:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		12/28/19 03:52	1
Dibromofluoromethane	86		62 - 130		12/28/19 03:52	1
Toluene-d8 (Surr)	106		70 - 130		12/28/19 03:52	1
4-Bromofluorobenzene	130		67 - 139		12/28/19 03:52	1

Definitions/Glossary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Qualifiers

GC/MS VOA

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

HPLC/IC

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Surrogate Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
600-197820-1	ACW-01	90	84	98	124
600-197820-1 - DL	ACW-01	99	98	98	132
600-197820-2	ACW-02A	81	87	104	145 X
600-197820-3	ACW-04	105	98	102	135
600-197820-4	ACW-05	94	94	102	133
600-197820-5	ACW-06	93	85	101	127
600-197820-6	ACW-07	79	86	108	130
600-197820-7	ACW-09	83	88	105	131
600-197820-8	ACW-10	89	87	107	132
600-197820-9	ACW-11	86	88	105	132
600-197820-10	ACW-12	79	86	107	129
600-197820-11	ACW-13	80	86	107	132
600-197820-12	ACW-14	79	86	106	131
600-197820-13	ACW-15	90	88	107	131
600-197820-14	ACW-16	85	89	99	128
600-197820-15	ACW-17	77	80	98	130
600-197820-16	ACW-18	102	93	99	140 X
600-197820-17	ACW-19	82	80	107	131
600-197820-17 - DL	ACW-19	80	86	105	133
600-197820-18	ACW-20	113	90	100	130
600-197820-18 - DL	ACW-20	85	89	105	131
600-197820-19	ACW-21	79	85	105	136
600-197820-20	ACW-22	82	86	107	129
600-197820-21	ACW-23	82	86	104	135
600-197820-22	ACW-24	109	94	84	148 X
600-197820-23	ACW-25	98	88	102	136
600-197820-24	ACW-26	82	86	104	137
600-197820-25	ACW-27	95	86	102	135
600-197820-26	ACW-28	77	85	108	127
600-197820-27	ACW-29	85	85	107	127
600-197820-28	ACW-30S	77	85	106	127
600-197820-29	ACW-30D	83	89	104	128
600-197820-30	ACW-32S	78	86	107	126
600-197820-31	ACW-32D	78	86	107	130
600-197820-32	DOOM	87	86	105	131
600-197820-33	ENSR-01	86	88	99	132
600-197820-34	EPNG-01	82	86	105	139
600-197820-35	OXY	80	84	103	133
600-197820-36	PTP-01	80	83	97	134
600-197820-37	DUP-01	83	85	101	137
600-197820-38	DUP-02	83	85	101	133
600-197820-39	DUP-03	82	86	104	132
600-197820-40	DUP-04	83	86	103	131
600-197820-41	Trip Blank-01	79	86	106	130
LCS 600-283882/3	Lab Control Sample	91	95	109	123
LCS 600-284012/3	Lab Control Sample	81	88	107	127
LCS 600-284127/3	Lab Control Sample	84	91	106	124
LCS 600-284230/3	Lab Control Sample	78	89	105	129
LCS 600-284265/3	Lab Control Sample	84	89	100	126

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Surrogate Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (50-134)	DBFM (62-130)	TOL (70-130)	BFB (67-139)
LCSD 600-283882/4	Lab Control Sample Dup	80	89	108	125
LCSD 600-284012/4	Lab Control Sample Dup	78	86	108	128
LCSD 600-284127/4	Lab Control Sample Dup	83	90	106	125
LCSD 600-284230/4	Lab Control Sample Dup	81	89	104	129
LCSD 600-284265/4	Lab Control Sample Dup	99	90	104	128
MB 600-283882/6	Method Blank	86	87	110	127
MB 600-284012/6	Method Blank	84	90	111	133
MB 600-284127/6	Method Blank	79	87	107	127
MB 600-284230/6	Method Blank	78	87	108	135
MB 600-284265/6	Method Blank	92	93	103	131

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

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

Lab Sample ID: MB 600-283882/6

Matrix: Water

Analysis Batch: 283882

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/24/19 02:17	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/24/19 02:17	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/24/19 02:17	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/24/19 02:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		50 - 134		12/24/19 02:17	1
Dibromofluoromethane	87		62 - 130		12/24/19 02:17	1
Toluene-d8 (Surr)	110		70 - 130		12/24/19 02:17	1
4-Bromofluorobenzene	127		67 - 139		12/24/19 02:17	1

Lab Sample ID: LCS 600-283882/3

Matrix: Water

Analysis Batch: 283882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.00935		mg/L		93	70 - 130
Ethylbenzene	0.0100	0.00962		mg/L		96	70 - 130
Toluene	0.0100	0.00990		mg/L		99	70 - 130
Xylenes, Total	0.0200	0.0189		mg/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		50 - 134
Dibromofluoromethane	95		62 - 130
Toluene-d8 (Surr)	109		70 - 130
4-Bromofluorobenzene	123		67 - 139

Lab Sample ID: LCSD 600-283882/4

Matrix: Water

Analysis Batch: 283882

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	0.0100	0.00965		mg/L		97	70 - 130	3	20
Ethylbenzene	0.0100	0.00977		mg/L		98	70 - 130	2	20
Toluene	0.0100	0.0101		mg/L		101	70 - 130	2	20
Xylenes, Total	0.0200	0.0192		mg/L		96	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	108		70 - 130
4-Bromofluorobenzene	125		67 - 139

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

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

Lab Sample ID: MB 600-284012/6

Matrix: Water

Analysis Batch: 284012

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/25/19 04:20	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/25/19 04:20	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/25/19 04:20	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/25/19 04:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	84		50 - 134		12/25/19 04:20	1
Dibromofluoromethane	90		62 - 130		12/25/19 04:20	1
Toluene-d8 (Surr)	111		70 - 130		12/25/19 04:20	1
4-Bromofluorobenzene	133		67 - 139		12/25/19 04:20	1

Lab Sample ID: LCS 600-284012/3

Matrix: Water

Analysis Batch: 284012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.0110		mg/L		110	70 - 130
Ethylbenzene	0.0100	0.0113		mg/L		113	70 - 130
Toluene	0.0100	0.0115		mg/L		115	70 - 130
Xylenes, Total	0.0200	0.0222		mg/L		111	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		50 - 134
Dibromofluoromethane	88		62 - 130
Toluene-d8 (Surr)	107		70 - 130
4-Bromofluorobenzene	127		67 - 139

Lab Sample ID: LCSD 600-284012/4

Matrix: Water

Analysis Batch: 284012

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	0.0100	0.0103		mg/L		103	70 - 130	7	20
Ethylbenzene	0.0100	0.0107		mg/L		107	70 - 130	5	20
Toluene	0.0100	0.0110		mg/L		110	70 - 130	5	20
Xylenes, Total	0.0200	0.0211		mg/L		106	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		50 - 134
Dibromofluoromethane	86		62 - 130
Toluene-d8 (Surr)	108		70 - 130
4-Bromofluorobenzene	128		67 - 139

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

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

Lab Sample ID: MB 600-284127/6

Matrix: Water

Analysis Batch: 284127

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/27/19 02:56	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/27/19 02:56	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/27/19 02:56	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/27/19 02:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		12/27/19 02:56	1
Dibromofluoromethane	87		62 - 130		12/27/19 02:56	1
Toluene-d8 (Surr)	107		70 - 130		12/27/19 02:56	1
4-Bromofluorobenzene	127		67 - 139		12/27/19 02:56	1

Lab Sample ID: LCS 600-284127/3

Matrix: Water

Analysis Batch: 284127

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.0101		mg/L		101	70 - 130
Ethylbenzene	0.0100	0.00998		mg/L		100	70 - 130
Toluene	0.0100	0.0103		mg/L		103	70 - 130
Xylenes, Total	0.0200	0.0199		mg/L		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		50 - 134
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	106		70 - 130
4-Bromofluorobenzene	124		67 - 139

Lab Sample ID: LCSD 600-284127/4

Matrix: Water

Analysis Batch: 284127

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	0.0100	0.0107		mg/L		107	70 - 130	6	20
Ethylbenzene	0.0100	0.0108		mg/L		108	70 - 130	8	20
Toluene	0.0100	0.0113		mg/L		113	70 - 130	9	20
Xylenes, Total	0.0200	0.0211		mg/L		106	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		50 - 134
Dibromofluoromethane	90		62 - 130
Toluene-d8 (Surr)	106		70 - 130
4-Bromofluorobenzene	125		67 - 139

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

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

Lab Sample ID: MB 600-284230/6

Matrix: Water

Analysis Batch: 284230

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 03:26	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 03:26	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 03:26	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 03:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		12/28/19 03:26	1
Dibromofluoromethane	87		62 - 130		12/28/19 03:26	1
Toluene-d8 (Surr)	108		70 - 130		12/28/19 03:26	1
4-Bromofluorobenzene	135		67 - 139		12/28/19 03:26	1

Lab Sample ID: LCS 600-284230/3

Matrix: Water

Analysis Batch: 284230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.0105		mg/L		105	70 - 130
Ethylbenzene	0.0100	0.0102		mg/L		102	70 - 130
Toluene	0.0100	0.0106		mg/L		106	70 - 130
Xylenes, Total	0.0200	0.0203		mg/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	105		70 - 130
4-Bromofluorobenzene	129		67 - 139

Lab Sample ID: LCSD 600-284230/4

Matrix: Water

Analysis Batch: 284230

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	0.0100	0.0108		mg/L		108	70 - 130	3	20
Ethylbenzene	0.0100	0.0104		mg/L		104	70 - 130	2	20
Toluene	0.0100	0.0108		mg/L		108	70 - 130	2	20
Xylenes, Total	0.0200	0.0204		mg/L		102	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	81		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	104		70 - 130
4-Bromofluorobenzene	129		67 - 139

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

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

Lab Sample ID: MB 600-284265/6

Matrix: Water

Analysis Batch: 284265

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0010		0.0010	0.00018	mg/L			12/28/19 15:39	1
Ethylbenzene	<0.0010		0.0010	0.00021	mg/L			12/28/19 15:39	1
Toluene	<0.0010		0.0010	0.00020	mg/L			12/28/19 15:39	1
Xylenes, Total	<0.0020		0.0020	0.00037	mg/L			12/28/19 15:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		50 - 134		12/28/19 15:39	1
Dibromofluoromethane	93		62 - 130		12/28/19 15:39	1
Toluene-d8 (Surr)	103		70 - 130		12/28/19 15:39	1
4-Bromofluorobenzene	131		67 - 139		12/28/19 15:39	1

Lab Sample ID: LCS 600-284265/3

Matrix: Water

Analysis Batch: 284265

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.0116		mg/L		116	70 - 130
Ethylbenzene	0.0100	0.0111		mg/L		111	70 - 130
Toluene	0.0100	0.0114		mg/L		114	70 - 130
Xylenes, Total	0.0200	0.0219		mg/L		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		50 - 134
Dibromofluoromethane	89		62 - 130
Toluene-d8 (Surr)	100		70 - 130
4-Bromofluorobenzene	126		67 - 139

Lab Sample ID: LCSD 600-284265/4

Matrix: Water

Analysis Batch: 284265

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	0.0100	0.0114		mg/L		114	70 - 130	2	20
Ethylbenzene	0.0100	0.0113		mg/L		113	70 - 130	2	20
Toluene	0.0100	0.0114		mg/L		114	70 - 130	0	20
Xylenes, Total	0.0200	0.0223		mg/L		112	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		50 - 134
Dibromofluoromethane	90		62 - 130
Toluene-d8 (Surr)	104		70 - 130
4-Bromofluorobenzene	128		67 - 139

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-284378/37

Matrix: Water

Analysis Batch: 284378

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.306	J	0.40	0.053	mg/L			12/31/19 14:33	1
Sulfate	0.281	J	0.50	0.096	mg/L			12/31/19 14:33	1

Lab Sample ID: MB 600-284378/6

Matrix: Water

Analysis Batch: 284378

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.300	J	0.40	0.053	mg/L			12/31/19 04:27	1
Sulfate	<0.50		0.50	0.096	mg/L			12/31/19 04:27	1

Lab Sample ID: LCS 600-284378/38

Matrix: Water

Analysis Batch: 284378

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	18.7		mg/L		93	90 - 110
Sulfate	20.0	19.5		mg/L		97	90 - 110

Lab Sample ID: LCS 600-284378/7

Matrix: Water

Analysis Batch: 284378

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.4		mg/L		97	90 - 110
Sulfate	20.0	18.9		mg/L		95	90 - 110

Lab Sample ID: 600-197820-8 MS

Matrix: Water

Analysis Batch: 284378

Client Sample ID: ACW-10

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1800	B F1	2000	4540	F1	mg/L		136	80 - 120
Sulfate	240		2000	2300		mg/L		103	80 - 120

Lab Sample ID: 600-197820-8 MSD

Matrix: Water

Analysis Batch: 284378

Client Sample ID: ACW-10

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	1800	B F1	2000	4680	F1	mg/L		142	80 - 120	3	20
Sulfate	240		2000	2350		mg/L		105	80 - 120	2	20

Lab Sample ID: 600-197820-20 MS

Matrix: Water

Analysis Batch: 284378

Client Sample ID: ACW-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	420	B	200	644		mg/L		112	80 - 120
Sulfate	16	B	200	218		mg/L		101	80 - 120

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 600-197820-20 MSD

Matrix: Water

Analysis Batch: 284378

Client Sample ID: ACW-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	420	B	200	642		mg/L		110	80 - 120	0	20
Sulfate	16	B	200	218		mg/L		101	80 - 120	0	20

Lab Sample ID: MB 600-284420/4

Matrix: Water

Analysis Batch: 284420

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.174	J	0.40	0.053	mg/L			12/31/19 11:30	1
Sulfate	<0.50		0.50	0.096	mg/L			12/31/19 11:30	1

Lab Sample ID: LCS 600-284420/5

Matrix: Water

Analysis Batch: 284420

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	20.3		mg/L		101	90 - 110
Sulfate	20.0	19.5		mg/L		97	90 - 110

Lab Sample ID: MB 600-284475/37

Matrix: Water

Analysis Batch: 284475

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.301	J	0.40	0.053	mg/L			01/02/20 12:45	1
Sulfate	<0.50		0.50	0.096	mg/L			01/02/20 12:45	1

Lab Sample ID: MB 600-284475/6

Matrix: Water

Analysis Batch: 284475

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.302	J	0.40	0.053	mg/L			01/02/20 05:56	1
Sulfate	0.241	J	0.50	0.096	mg/L			01/02/20 05:56	1

Lab Sample ID: LCS 600-284475/38

Matrix: Water

Analysis Batch: 284475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.0		mg/L		95	90 - 110
Sulfate	20.0	19.5		mg/L		98	90 - 110

Lab Sample ID: LCS 600-284475/7

Matrix: Water

Analysis Batch: 284475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.0		mg/L		95	90 - 110
Sulfate	20.0	19.5		mg/L		97	90 - 110

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 600-197820-2 MS

Matrix: Water

Analysis Batch: 284475

Client Sample ID: ACW-02A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<8.0	F1	200	3830	E F1	mg/L		1917	80 - 120
Sulfate	49	B	200	260		mg/L		106	80 - 120

Lab Sample ID: 600-197820-2 MSD

Matrix: Water

Analysis Batch: 284475

Client Sample ID: ACW-02A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<8.0	F1	200	3650	E F1	mg/L		1827	80 - 120	5	20
Sulfate	49	B	200	243		mg/L		97	80 - 120	7	20

Lab Sample ID: 600-197820-37 MS

Matrix: Water

Analysis Batch: 284475

Client Sample ID: DUP-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	230	B	200	470		mg/L		118	80 - 120
Sulfate	89		200	315		mg/L		113	80 - 120

Lab Sample ID: 600-197820-37 MSD

Matrix: Water

Analysis Batch: 284475

Client Sample ID: DUP-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	230	B	200	471		mg/L		119	80 - 120	0	20
Sulfate	89		200	314		mg/L		112	80 - 120	0	20

Lab Sample ID: 600-197820-A-1 MS

Matrix: Water

Analysis Batch: 284475

Client Sample ID: 600-197820-A-1 MS

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3700	E	500	6770	E 4	mg/L		622	80 - 120
Sulfate	<25		500	551		mg/L		110	80 - 120

Lab Sample ID: 600-197820-A-1 MSD

Matrix: Water

Analysis Batch: 284475

Client Sample ID: 600-197820-A-1 MSD

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3700	E	500	6770	E 4	mg/L		623	80 - 120	0	20
Sulfate	<25		500	541		mg/L		108	80 - 120	2	20

Lab Sample ID: MB 600-284490/6

Matrix: Water

Analysis Batch: 284490

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.300	J	0.40	0.053	mg/L			01/03/20 04:12	1
Sulfate	<0.50		0.50	0.096	mg/L			01/03/20 04:12	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 600-284490/7

Matrix: Water

Analysis Batch: 284490

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	18.9		mg/L		95	90 - 110
Sulfate	20.0	19.3		mg/L		97	90 - 110

Lab Sample ID: 600-197820-32 MS

Matrix: Water

Analysis Batch: 284490

Client Sample ID: DOOM

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	31	B ^	200	222		mg/L		96	80 - 120
Sulfate	74		200	278		mg/L		102	80 - 120

Lab Sample ID: 600-197820-32 MSD

Matrix: Water

Analysis Batch: 284490

Client Sample ID: DOOM

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	31	B ^	200	214		mg/L		92	80 - 120	4	20
Sulfate	74		200	267		mg/L		96	80 - 120	4	20

Lab Sample ID: MB 600-284505/6

Matrix: Water

Analysis Batch: 284505

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.298	J	0.40	0.053	mg/L			01/06/20 05:19	1
Sulfate	<0.50		0.50	0.096	mg/L			01/06/20 05:19	1

Lab Sample ID: LCS 600-284505/7

Matrix: Water

Analysis Batch: 284505

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20.0	19.1		mg/L		96	90 - 110
Sulfate	20.0	19.3		mg/L		96	90 - 110

Lab Sample ID: 600-197820-26 MS

Matrix: Water

Analysis Batch: 284505

Client Sample ID: ACW-28

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	91	B	50.0	136		mg/L		90	80 - 120
Sulfate	97		50.0	148		mg/L		103	80 - 120

Lab Sample ID: 600-197820-26 MSD

Matrix: Water

Analysis Batch: 284505

Client Sample ID: ACW-28

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	91	B	50.0	135		mg/L		88	80 - 120	1	20
Sulfate	97		50.0	147		mg/L		101	80 - 120	1	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Lab Sample ID: MB 600-284483/1-A

Matrix: Water

Analysis Batch: 284665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 284483

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<1.0		1.0	0.024	mg/L		01/02/20 10:19	01/07/20 13:01	1
Potassium	<1.0		1.0	0.037	mg/L		01/02/20 10:19	01/07/20 13:01	1
Magnesium	<1.0		1.0	0.056	mg/L		01/02/20 10:19	01/07/20 13:01	1
Sodium	0.110	J	1.0	0.021	mg/L		01/02/20 10:19	01/07/20 13:01	1

Lab Sample ID: LCS 600-284483/2-A

Matrix: Water

Analysis Batch: 284665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	10.3		mg/L		103	80 - 120
Potassium	10.0	10.3		mg/L		103	80 - 120
Magnesium	10.0	10.4		mg/L		104	80 - 120
Sodium	10.0	10.5		mg/L		105	80 - 120

Lab Sample ID: 600-197820-1 MS

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-01

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	77		10.0	84.5	4	mg/L		73	75 - 125
Potassium	22		10.0	32.0		mg/L		100	75 - 125
Magnesium	76		10.0	83.6	4	mg/L		76	75 - 125

Lab Sample ID: 600-197820-1 MS

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-01

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	4000	B	10.0	3980	4	mg/L		-475	75 - 125

Lab Sample ID: 600-197820-1 MSD

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-01

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	77		10.0	85.7	4	mg/L		85	75 - 125	1	20
Potassium	22		10.0	32.7		mg/L		107	75 - 125	2	20
Magnesium	76		10.0	84.9	4	mg/L		90	75 - 125	2	20

Lab Sample ID: 600-197820-1 MSD

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-01

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	4000	B	10.0	4030	4	mg/L		80	75 - 125	1	20

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Lab Sample ID: 600-197820-11 MS

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	220		10.0	227	4	mg/L		84	75 - 125
Potassium	8.6		10.0	18.8		mg/L		102	75 - 125
Magnesium	59		10.0	69.0	4	mg/L		95	75 - 125

Lab Sample ID: 600-197820-11 MS

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	160	B	10.0	176	4	mg/L		106	75 - 125

Lab Sample ID: 600-197820-11 MSD

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	220		10.0	230	4	mg/L		107	75 - 125	1	20
Potassium	8.6		10.0	18.9		mg/L		103	75 - 125	0	20
Magnesium	59		10.0	69.2	4	mg/L		97	75 - 125	0	20

Lab Sample ID: 600-197820-11 MSD

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	160	B	10.0	170	4	mg/L		50	75 - 125	3	20

Lab Sample ID: 600-197820-1 DU

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-01

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	77		73.6		mg/L		5	20
Potassium	22		21.3		mg/L		4	20
Magnesium	76		74.6		mg/L		2	20

Lab Sample ID: 600-197820-1 DU

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-01

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sodium	4000	B	3920		mg/L		3	20

Lab Sample ID: 600-197820-11 DU

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	220		218		mg/L		0.7	20
Potassium	8.6		8.52		mg/L		1	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Lab Sample ID: 600-197820-11 DU

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Magnesium	59		59.1		mg/L		0.6	20

Lab Sample ID: 600-197820-11 DU

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-13

Prep Type: Total/NA

Prep Batch: 284483

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Sodium	160	B	165		mg/L		0.2	20

Lab Sample ID: MB 600-284484/1-A

Matrix: Water

Analysis Batch: 284764

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 284484

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<1.0		1.0	0.024	mg/L		01/02/20 10:22	01/08/20 15:09	1
Potassium	0.0670	J	1.0	0.037	mg/L		01/02/20 10:22	01/08/20 15:09	1
Magnesium	0.0614	J	1.0	0.056	mg/L		01/02/20 10:22	01/08/20 15:09	1
Sodium	0.0865	J	1.0	0.021	mg/L		01/02/20 10:22	01/08/20 15:09	1

Lab Sample ID: LCS 600-284484/2-A

Matrix: Water

Analysis Batch: 284764

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	10.8		mg/L		108	80 - 120
Potassium	10.0	10.6		mg/L		106	80 - 120
Magnesium	10.0	10.8		mg/L		108	80 - 120
Sodium	10.0	10.8		mg/L		108	80 - 120

Lab Sample ID: 600-197820-21 MS

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-23

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	210		10.0	232	4	mg/L		172	75 - 125
Potassium	11	B	10.0	21.5	B	mg/L		108	75 - 125
Magnesium	78	B	10.0	88.5	4 B	mg/L		102	75 - 125

Lab Sample ID: 600-197820-21 MS

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-23

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	240		10.0	247	4	mg/L		91	75 - 125
Potassium	11	B	10.0	22.0		mg/L		106	75 - 125
Magnesium	87	B	10.0	96.5	4	mg/L		94	75 - 125
Sodium	350	B	10.0	356	4	mg/L		67	75 - 125

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Lab Sample ID: 600-197820-21 MSD

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-23

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	210		10.0	230	4	mg/L		150	75 - 125	1	20
Potassium	11	B	10.0	21.3	B	mg/L		106	75 - 125	1	20
Magnesium	78	B	10.0	88.3	4 B	mg/L		99	75 - 125	0	20

Lab Sample ID: 600-197820-21 MSD

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-23

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	240		10.0	247	4	mg/L		92	75 - 125	0	20
Potassium	11	B	10.0	21.9		mg/L		105	75 - 125	0	20
Magnesium	87	B	10.0	96.7	4	mg/L		96	75 - 125	0	20
Sodium	350	B	10.0	354	4	mg/L		46	75 - 125	1	20

Lab Sample ID: 600-197820-31 MS

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-32D

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	130		10.0	143	4	mg/L		104	75 - 125		
Potassium	7.9		10.0	17.9		mg/L		99	75 - 125		
Magnesium	48		10.0	56.8	4	mg/L		93	75 - 125		
Sodium	120		10.0	133	4	mg/L		108	75 - 125		

Lab Sample ID: 600-197820-31 MSD

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-32D

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	130		10.0	143	4	mg/L		108	75 - 125	0	20
Potassium	7.9		10.0	18.0		mg/L		101	75 - 125	1	20
Magnesium	48		10.0	56.9	4	mg/L		93	75 - 125	0	20
Sodium	120		10.0	133	4	mg/L		110	75 - 125	0	20

Lab Sample ID: 600-197820-21 DU

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-23

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	210		214		mg/L		0.3	20
Potassium	11	B	10.6	B	mg/L		1	20
Magnesium	78	B	77.7	B	mg/L		0.9	20

Lab Sample ID: 600-197820-21 DU

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-23

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	240		227		mg/L		4	20
Potassium	11	B	11.1		mg/L		3	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Lab Sample ID: 600-197820-21 DU

Matrix: Water

Analysis Batch: 284764

Client Sample ID: ACW-23

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Magnesium	87	B	84.3		mg/L		3	20
Sodium	350	B	337		mg/L		3	20

Lab Sample ID: 600-197820-31 DU

Matrix: Water

Analysis Batch: 284665

Client Sample ID: ACW-32D

Prep Type: Total/NA

Prep Batch: 284484

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	130		133		mg/L		0.6	20
Potassium	7.9		7.78		mg/L		2	20
Magnesium	48		47.6		mg/L		0.08	20
Sodium	120		124		mg/L		1	20

Lab Sample ID: MB 600-284520/1-A

Matrix: Water

Analysis Batch: 284665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 284520

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<1.0		1.0	0.024	mg/L		01/04/20 18:12	01/07/20 13:27	1
Potassium	<1.0		1.0	0.037	mg/L		01/04/20 18:12	01/07/20 13:27	1
Magnesium	<1.0		1.0	0.056	mg/L		01/04/20 18:12	01/07/20 13:27	1
Sodium	0.361	J	1.0	0.021	mg/L		01/04/20 18:12	01/07/20 13:27	1

Lab Sample ID: LCS 600-284520/2-A

Matrix: Water

Analysis Batch: 284665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 284520

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	9.84		mg/L		98	80 - 120
Potassium	10.0	9.93		mg/L		99	80 - 120
Magnesium	10.0	9.79		mg/L		98	80 - 120
Sodium	10.0	10.0		mg/L		100	80 - 120

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 600-284322/1

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	1.3	umhos/cm			12/28/19 18:35	1

Lab Sample ID: MB 600-284322/31

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	1.3	umhos/cm			12/28/19 18:35	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 120.1 - Conductivity, Specific Conductance (Continued)

Lab Sample ID: MB 600-284322/59

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	1.3	umhos/cm			12/28/19 18:35	1

Lab Sample ID: MB 600-284322/87

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<2.0		2.0	1.3	umhos/cm			12/28/19 18:35	1

Lab Sample ID: LCS 600-284322/2

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	10.4		umhos/cm		104	90 - 110

Lab Sample ID: LCS 600-284322/32

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	10.5		umhos/cm		105	90 - 110

Lab Sample ID: LCS 600-284322/60

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	10.4		umhos/cm		104	90 - 110

Lab Sample ID: LCS 600-284322/88

Matrix: Water

Analysis Batch: 284322

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	10.0	10.3		umhos/cm		103	90 - 110

Lab Sample ID: 600-197820-17 DU

Matrix: Water

Analysis Batch: 284322

Client Sample ID: ACW-19

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	5200		5350		umhos/cm		3	20

Lab Sample ID: 600-197820-28 DU

Matrix: Water

Analysis Batch: 284322

Client Sample ID: ACW-30S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	820		852		umhos/cm		4	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: 600-197820-29 DU

Matrix: Water

Analysis Batch: 284322

Client Sample ID: ACW-30D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Specific Conductance	40000		41100		umhos/cm		2	20

Lab Sample ID: 600-197820-37 DU

Matrix: Water

Analysis Batch: 284322

Client Sample ID: DUP-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Specific Conductance	1300		1330		umhos/cm		3	20

Lab Sample ID: 600-197820-39 DU

Matrix: Water

Analysis Batch: 284322

Client Sample ID: DUP-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Specific Conductance	810		819		umhos/cm		1	20

Method: 2320B-1997 - Alkalinity, Total - SM Online, 2011

Lab Sample ID: MB 600-284000/2

Matrix: Water

Analysis Batch: 284000

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<20		20	20	mg/L			12/24/19 11:22	1
Bicarbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 11:22	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 11:22	1

Lab Sample ID: LCS 600-284000/3

Matrix: Water

Analysis Batch: 284000

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100	100		mg/L		100	90 - 110

Lab Sample ID: 600-197820-12 MS

Matrix: Water

Analysis Batch: 284000

Client Sample ID: ACW-14

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	150	F1	250	318	F1	mg/L		68	75 - 125

Lab Sample ID: 600-197820-12 MSD

Matrix: Water

Analysis Batch: 284000

Client Sample ID: ACW-14

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Alkalinity	150	F1	250	356		mg/L		83	75 - 125	11	20

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 2320B-1997 - Alkalinity, Total - SM Online, 2011 (Continued)

Lab Sample ID: 600-197820-15 MS

Matrix: Water

Analysis Batch: 284000

Client Sample ID: ACW-17

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	170	F1	250	225	F1	mg/L		21	75 - 125

Lab Sample ID: 600-197820-15 MSD

Matrix: Water

Analysis Batch: 284000

Client Sample ID: ACW-17

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	170	F1	250	220	F1	mg/L		19	75 - 125	2	20

Lab Sample ID: MB 600-284052/1

Matrix: Water

Analysis Batch: 284052

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<20		20	20	mg/L			12/24/19 14:19	1
Bicarbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 14:19	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/24/19 14:19	1

Lab Sample ID: LCS 600-284052/2

Matrix: Water

Analysis Batch: 284052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100	95.4		mg/L		95	90 - 110

Lab Sample ID: 600-197820-17 MS

Matrix: Water

Analysis Batch: 284052

Client Sample ID: ACW-19

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	700	F1	250	862	F1	mg/L		63	75 - 125

Lab Sample ID: 600-197820-17 MSD

Matrix: Water

Analysis Batch: 284052

Client Sample ID: ACW-19

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	700	F1	250	873	F1	mg/L		67	75 - 125	1	20

Lab Sample ID: MB 600-284118/2

Matrix: Water

Analysis Batch: 284118

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	<20		20	20	mg/L			12/26/19 10:14	1
Bicarbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 10:14	1
Carbonate Alkalinity as CaCO3	<20		20	20	mg/L			12/26/19 10:14	1

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 2320B-1997 - Alkalinity, Total - SM Online, 2011 (Continued)

Lab Sample ID: LCS 600-284118/3

Matrix: Water

Analysis Batch: 284118

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity			100	106		mg/L		106	90 - 110

Lab Sample ID: 600-197820-27 MS

Matrix: Water

Analysis Batch: 284118

Client Sample ID: ACW-29

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	170		250	381		mg/L		86	75 - 125

Lab Sample ID: 600-197820-27 MSD

Matrix: Water

Analysis Batch: 284118

Client Sample ID: ACW-29

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	170		250	382		mg/L		87	75 - 125	0	20

Lab Sample ID: 600-197820-37 MS

Matrix: Water

Analysis Batch: 284118

Client Sample ID: DUP-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	F1	250	266	F1	mg/L		26	75 - 125

Lab Sample ID: 600-197820-37 MSD

Matrix: Water

Analysis Batch: 284118

Client Sample ID: DUP-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	200	F1	250	302	F1	mg/L		41	75 - 125	13	20

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C)

Lab Sample ID: MB 600-283949/1

Matrix: Water

Analysis Batch: 283949

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			12/24/19 09:53	1

Lab Sample ID: LCS 600-283949/2

Matrix: Water

Analysis Batch: 283949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids			1800	1790		mg/L		99	90 - 110

Eurofins TestAmerica, Houston

QC Sample Results

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Method: 2540 C-1997 - Total Dissolved Solids (Dried at 180 °C) (Continued)

Lab Sample ID: 600-197820-11 DU

Matrix: Water

Analysis Batch: 283949

Client Sample ID: ACW-13

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2000		1890		mg/L	-	4	10

Lab Sample ID: 600-197820-13 DU

Matrix: Water

Analysis Batch: 283949

Client Sample ID: ACW-15

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	570		590		mg/L	-	3	10

Lab Sample ID: MB 600-283982/1

Matrix: Water

Analysis Batch: 283982

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L	-		12/24/19 11:51	1

Lab Sample ID: LCS 600-283982/2

Matrix: Water

Analysis Batch: 283982

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1750		mg/L	-	97	90 - 110

Lab Sample ID: 600-197820-21 DU

Matrix: Water

Analysis Batch: 283982

Client Sample ID: ACW-23

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1900		1920		mg/L	-	0.4	10

Lab Sample ID: 600-197820-31 DU

Matrix: Water

Analysis Batch: 283982

Client Sample ID: ACW-32D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	850		830		mg/L	-	2	10

Lab Sample ID: MB 600-284079/1

Matrix: Water

Analysis Batch: 284079

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L	-		12/26/19 11:50	1

Lab Sample ID: LCS 600-284079/2

Matrix: Water

Analysis Batch: 284079

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1800	1800		mg/L	-	100	90 - 110

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QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

GC/MS VOA

Analysis Batch: 283882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	8260B	
MB 600-283882/6	Method Blank	Total/NA	Water	8260B	
LCS 600-283882/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-283882/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 284012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1 - DL	ACW-01	Total/NA	Water	8260B	
600-197820-4	ACW-05	Total/NA	Water	8260B	
600-197820-5	ACW-06	Total/NA	Water	8260B	
600-197820-17	ACW-19	Total/NA	Water	8260B	
600-197820-18	ACW-20	Total/NA	Water	8260B	
600-197820-20	ACW-22	Total/NA	Water	8260B	
MB 600-284012/6	Method Blank	Total/NA	Water	8260B	
LCS 600-284012/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-284012/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 284127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-2	ACW-02A	Total/NA	Water	8260B	
600-197820-3	ACW-04	Total/NA	Water	8260B	
600-197820-6	ACW-07	Total/NA	Water	8260B	
600-197820-7	ACW-09	Total/NA	Water	8260B	
600-197820-8	ACW-10	Total/NA	Water	8260B	
600-197820-9	ACW-11	Total/NA	Water	8260B	
600-197820-10	ACW-12	Total/NA	Water	8260B	
600-197820-11	ACW-13	Total/NA	Water	8260B	
600-197820-12	ACW-14	Total/NA	Water	8260B	
600-197820-13	ACW-15	Total/NA	Water	8260B	
600-197820-14	ACW-16	Total/NA	Water	8260B	
600-197820-15	ACW-17	Total/NA	Water	8260B	
600-197820-16	ACW-18	Total/NA	Water	8260B	
600-197820-17 - DL	ACW-19	Total/NA	Water	8260B	
600-197820-18 - DL	ACW-20	Total/NA	Water	8260B	
600-197820-19	ACW-21	Total/NA	Water	8260B	
600-197820-21	ACW-23	Total/NA	Water	8260B	
600-197820-22	ACW-24	Total/NA	Water	8260B	
600-197820-23	ACW-25	Total/NA	Water	8260B	
600-197820-24	ACW-26	Total/NA	Water	8260B	
MB 600-284127/6	Method Blank	Total/NA	Water	8260B	
LCS 600-284127/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-284127/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 284230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-26	ACW-28	Total/NA	Water	8260B	
600-197820-27	ACW-29	Total/NA	Water	8260B	
600-197820-28	ACW-30S	Total/NA	Water	8260B	
600-197820-29	ACW-30D	Total/NA	Water	8260B	
600-197820-30	ACW-32S	Total/NA	Water	8260B	
600-197820-31	ACW-32D	Total/NA	Water	8260B	

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QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

GC/MS VOA (Continued)

Analysis Batch: 284230 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-32	DOOM	Total/NA	Water	8260B	
600-197820-34	EPNG-01	Total/NA	Water	8260B	
600-197820-35	OXY	Total/NA	Water	8260B	
600-197820-36	PTP-01	Total/NA	Water	8260B	
600-197820-37	DUP-01	Total/NA	Water	8260B	
600-197820-38	DUP-02	Total/NA	Water	8260B	
600-197820-39	DUP-03	Total/NA	Water	8260B	
600-197820-40	DUP-04	Total/NA	Water	8260B	
600-197820-41	Trip Blank-01	Total/NA	Water	8260B	
MB 600-284230/6	Method Blank	Total/NA	Water	8260B	
LCS 600-284230/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-284230/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 284265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-25	ACW-27	Total/NA	Water	8260B	
600-197820-33	ENSR-01	Total/NA	Water	8260B	
MB 600-284265/6	Method Blank	Total/NA	Water	8260B	
LCS 600-284265/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-284265/4	Lab Control Sample Dup	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 284378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	300.0	
600-197820-2	ACW-02A	Total/NA	Water	300.0	
600-197820-3	ACW-04	Total/NA	Water	300.0	
600-197820-4	ACW-05	Total/NA	Water	300.0	
600-197820-5	ACW-06	Total/NA	Water	300.0	
600-197820-6	ACW-07	Total/NA	Water	300.0	
600-197820-7	ACW-09	Total/NA	Water	300.0	
600-197820-8	ACW-10	Total/NA	Water	300.0	
600-197820-9	ACW-11	Total/NA	Water	300.0	
600-197820-10	ACW-12	Total/NA	Water	300.0	
600-197820-11	ACW-13	Total/NA	Water	300.0	
600-197820-12	ACW-14	Total/NA	Water	300.0	
600-197820-13	ACW-15	Total/NA	Water	300.0	
600-197820-14	ACW-16	Total/NA	Water	300.0	
600-197820-15	ACW-17	Total/NA	Water	300.0	
600-197820-16	ACW-18	Total/NA	Water	300.0	
600-197820-17	ACW-19	Total/NA	Water	300.0	
600-197820-18	ACW-20	Total/NA	Water	300.0	
600-197820-19	ACW-21	Total/NA	Water	300.0	
600-197820-20	ACW-22	Total/NA	Water	300.0	
600-197820-21	ACW-23	Total/NA	Water	300.0	
MB 600-284378/37	Method Blank	Total/NA	Water	300.0	
MB 600-284378/6	Method Blank	Total/NA	Water	300.0	
LCS 600-284378/38	Lab Control Sample	Total/NA	Water	300.0	
LCS 600-284378/7	Lab Control Sample	Total/NA	Water	300.0	
600-197820-8 MS	ACW-10	Total/NA	Water	300.0	

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QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

HPLC/IC (Continued)

Analysis Batch: 284378 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-8 MSD	ACW-10	Total/NA	Water	300.0	
600-197820-20 MS	ACW-22	Total/NA	Water	300.0	
600-197820-20 MSD	ACW-22	Total/NA	Water	300.0	

Analysis Batch: 284420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-22	ACW-24	Total/NA	Water	300.0	
600-197820-23	ACW-25	Total/NA	Water	300.0	
600-197820-24	ACW-26	Total/NA	Water	300.0	
600-197820-25	ACW-27	Total/NA	Water	300.0	
MB 600-284420/4	Method Blank	Total/NA	Water	300.0	
LCS 600-284420/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 284475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-2	ACW-02A	Total/NA	Water	300.0	
600-197820-3	ACW-04	Total/NA	Water	300.0	
600-197820-6	ACW-07	Total/NA	Water	300.0	
600-197820-16	ACW-18	Total/NA	Water	300.0	
600-197820-18	ACW-20	Total/NA	Water	300.0	
600-197820-19	ACW-21	Total/NA	Water	300.0	
600-197820-22	ACW-24	Total/NA	Water	300.0	
600-197820-27	ACW-29	Total/NA	Water	300.0	
600-197820-28	ACW-30S	Total/NA	Water	300.0	
600-197820-29	ACW-30D	Total/NA	Water	300.0	
600-197820-30	ACW-32S	Total/NA	Water	300.0	
600-197820-31	ACW-32D	Total/NA	Water	300.0	
600-197820-32	DOOM	Total/NA	Water	300.0	
600-197820-33	ENSR-01	Total/NA	Water	300.0	
600-197820-34	EPNG-01	Total/NA	Water	300.0	
600-197820-35	OXY	Total/NA	Water	300.0	
600-197820-36	PTP-01	Total/NA	Water	300.0	
600-197820-37	DUP-01	Total/NA	Water	300.0	
600-197820-38	DUP-02	Total/NA	Water	300.0	
600-197820-40	DUP-04	Total/NA	Water	300.0	
MB 600-284475/37	Method Blank	Total/NA	Water	300.0	
MB 600-284475/6	Method Blank	Total/NA	Water	300.0	
LCS 600-284475/38	Lab Control Sample	Total/NA	Water	300.0	
LCS 600-284475/7	Lab Control Sample	Total/NA	Water	300.0	
600-197820-2 MS	ACW-02A	Total/NA	Water	300.0	
600-197820-2 MSD	ACW-02A	Total/NA	Water	300.0	
600-197820-37 MS	DUP-01	Total/NA	Water	300.0	
600-197820-37 MSD	DUP-01	Total/NA	Water	300.0	
600-197820-A-1 MS	600-197820-A-1 MS	Total/NA	Water	300.0	
600-197820-A-1 MSD	600-197820-A-1 MSD	Total/NA	Water	300.0	

Analysis Batch: 284490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	300.0	
600-197820-14	ACW-16	Total/NA	Water	300.0	
600-197820-15	ACW-17	Total/NA	Water	300.0	

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QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

HPLC/IC (Continued)

Analysis Batch: 284490 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-17	ACW-19	Total/NA	Water	300.0	
600-197820-26	ACW-28	Total/NA	Water	300.0	
600-197820-27	ACW-29	Total/NA	Water	300.0	
600-197820-28	ACW-30S	Total/NA	Water	300.0	
600-197820-32	DOOM	Total/NA	Water	300.0	
600-197820-33	ENSR-01	Total/NA	Water	300.0	
600-197820-39	DUP-03	Total/NA	Water	300.0	
600-197820-40	DUP-04	Total/NA	Water	300.0	
MB 600-284490/6	Method Blank	Total/NA	Water	300.0	
LCS 600-284490/7	Lab Control Sample	Total/NA	Water	300.0	
600-197820-32 MS	DOOM	Total/NA	Water	300.0	
600-197820-32 MSD	DOOM	Total/NA	Water	300.0	

Analysis Batch: 284505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-284505/6	Method Blank	Total/NA	Water	300.0	
LCS 600-284505/7	Lab Control Sample	Total/NA	Water	300.0	
600-197820-26 MS	ACW-28	Total/NA	Water	300.0	
600-197820-26 MSD	ACW-28	Total/NA	Water	300.0	

Metals

Prep Batch: 284483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	3010A	
600-197820-3	ACW-04	Total/NA	Water	3010A	
600-197820-4	ACW-05	Total/NA	Water	3010A	
600-197820-5	ACW-06	Total/NA	Water	3010A	
600-197820-6	ACW-07	Total/NA	Water	3010A	
600-197820-7	ACW-09	Total/NA	Water	3010A	
600-197820-8	ACW-10	Total/NA	Water	3010A	
600-197820-9	ACW-11	Total/NA	Water	3010A	
600-197820-10	ACW-12	Total/NA	Water	3010A	
600-197820-11	ACW-13	Total/NA	Water	3010A	
600-197820-12	ACW-14	Total/NA	Water	3010A	
600-197820-13	ACW-15	Total/NA	Water	3010A	
600-197820-14	ACW-16	Total/NA	Water	3010A	
600-197820-15	ACW-17	Total/NA	Water	3010A	
600-197820-16	ACW-18	Total/NA	Water	3010A	
600-197820-17	ACW-19	Total/NA	Water	3010A	
600-197820-18	ACW-20	Total/NA	Water	3010A	
600-197820-19	ACW-21	Total/NA	Water	3010A	
600-197820-20	ACW-22	Total/NA	Water	3010A	
MB 600-284483/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-284483/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-197820-1 MS	ACW-01	Total/NA	Water	3010A	
600-197820-1 MSD	ACW-01	Total/NA	Water	3010A	
600-197820-11 MS	ACW-13	Total/NA	Water	3010A	
600-197820-11 MSD	ACW-13	Total/NA	Water	3010A	
600-197820-1 DU	ACW-01	Total/NA	Water	3010A	
600-197820-11 DU	ACW-13	Total/NA	Water	3010A	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Metals

Prep Batch: 284484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-21	ACW-23	Total/NA	Water	3010A	
600-197820-22	ACW-24	Total/NA	Water	3010A	
600-197820-23	ACW-25	Total/NA	Water	3010A	
600-197820-24	ACW-26	Total/NA	Water	3010A	
600-197820-25	ACW-27	Total/NA	Water	3010A	
600-197820-26	ACW-28	Total/NA	Water	3010A	
600-197820-27	ACW-29	Total/NA	Water	3010A	
600-197820-28	ACW-30S	Total/NA	Water	3010A	
600-197820-29	ACW-30D	Total/NA	Water	3010A	
600-197820-30	ACW-32S	Total/NA	Water	3010A	
600-197820-31	ACW-32D	Total/NA	Water	3010A	
600-197820-32	DOOM	Total/NA	Water	3010A	
600-197820-33	ENSR-01	Total/NA	Water	3010A	
600-197820-34	EPNG-01	Total/NA	Water	3010A	
600-197820-35	OXY	Total/NA	Water	3010A	
600-197820-36	PTP-01	Total/NA	Water	3010A	
600-197820-37	DUP-01	Total/NA	Water	3010A	
600-197820-38	DUP-02	Total/NA	Water	3010A	
600-197820-39	DUP-03	Total/NA	Water	3010A	
600-197820-40	DUP-04	Total/NA	Water	3010A	
MB 600-284484/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-284484/2-A	Lab Control Sample	Total/NA	Water	3010A	
600-197820-21 MS	ACW-23	Total/NA	Water	3010A	
600-197820-21 MSD	ACW-23	Total/NA	Water	3010A	
600-197820-31 MS	ACW-32D	Total/NA	Water	3010A	
600-197820-31 MSD	ACW-32D	Total/NA	Water	3010A	
600-197820-21 DU	ACW-23	Total/NA	Water	3010A	
600-197820-31 DU	ACW-32D	Total/NA	Water	3010A	

Prep Batch: 284520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-2	ACW-02A	Total/NA	Water	3010A	
MB 600-284520/1-A	Method Blank	Total/NA	Water	3010A	
LCS 600-284520/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 284665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	6010B	284483
600-197820-2	ACW-02A	Total/NA	Water	6010B	284520
600-197820-3	ACW-04	Total/NA	Water	6010B	284483
600-197820-4	ACW-05	Total/NA	Water	6010B	284483
600-197820-5	ACW-06	Total/NA	Water	6010B	284483
600-197820-6	ACW-07	Total/NA	Water	6010B	284483
600-197820-7	ACW-09	Total/NA	Water	6010B	284483
600-197820-8	ACW-10	Total/NA	Water	6010B	284483
600-197820-9	ACW-11	Total/NA	Water	6010B	284483
600-197820-10	ACW-12	Total/NA	Water	6010B	284483
600-197820-11	ACW-13	Total/NA	Water	6010B	284483
600-197820-12	ACW-14	Total/NA	Water	6010B	284483
600-197820-13	ACW-15	Total/NA	Water	6010B	284483
600-197820-14	ACW-16	Total/NA	Water	6010B	284483

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QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Metals (Continued)

Analysis Batch: 284665 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-15	ACW-17	Total/NA	Water	6010B	284483
600-197820-16	ACW-18	Total/NA	Water	6010B	284483
600-197820-17	ACW-19	Total/NA	Water	6010B	284483
600-197820-18	ACW-20	Total/NA	Water	6010B	284483
600-197820-19	ACW-21	Total/NA	Water	6010B	284483
600-197820-20	ACW-22	Total/NA	Water	6010B	284483
600-197820-21	ACW-23	Total/NA	Water	6010B	284484
600-197820-22	ACW-24	Total/NA	Water	6010B	284484
600-197820-23	ACW-25	Total/NA	Water	6010B	284484
600-197820-24	ACW-26	Total/NA	Water	6010B	284484
600-197820-25	ACW-27	Total/NA	Water	6010B	284484
600-197820-26	ACW-28	Total/NA	Water	6010B	284484
600-197820-27	ACW-29	Total/NA	Water	6010B	284484
600-197820-28	ACW-30S	Total/NA	Water	6010B	284484
600-197820-29	ACW-30D	Total/NA	Water	6010B	284484
600-197820-30	ACW-32S	Total/NA	Water	6010B	284484
600-197820-31	ACW-32D	Total/NA	Water	6010B	284484
600-197820-32	DOOM	Total/NA	Water	6010B	284484
600-197820-33	ENSR-01	Total/NA	Water	6010B	284484
600-197820-34	EPNG-01	Total/NA	Water	6010B	284484
600-197820-35	OXY	Total/NA	Water	6010B	284484
600-197820-36	PTP-01	Total/NA	Water	6010B	284484
600-197820-37	DUP-01	Total/NA	Water	6010B	284484
600-197820-38	DUP-02	Total/NA	Water	6010B	284484
600-197820-39	DUP-03	Total/NA	Water	6010B	284484
600-197820-40	DUP-04	Total/NA	Water	6010B	284484
MB 600-284483/1-A	Method Blank	Total/NA	Water	6010B	284483
MB 600-284520/1-A	Method Blank	Total/NA	Water	6010B	284520
LCS 600-284483/2-A	Lab Control Sample	Total/NA	Water	6010B	284483
LCS 600-284520/2-A	Lab Control Sample	Total/NA	Water	6010B	284520
600-197820-1 MS	ACW-01	Total/NA	Water	6010B	284483
600-197820-1 MSD	ACW-01	Total/NA	Water	6010B	284483
600-197820-11 MS	ACW-13	Total/NA	Water	6010B	284483
600-197820-11 MSD	ACW-13	Total/NA	Water	6010B	284483
600-197820-21 MS	ACW-23	Total/NA	Water	6010B	284484
600-197820-21 MSD	ACW-23	Total/NA	Water	6010B	284484
600-197820-31 MS	ACW-32D	Total/NA	Water	6010B	284484
600-197820-31 MSD	ACW-32D	Total/NA	Water	6010B	284484
600-197820-1 DU	ACW-01	Total/NA	Water	6010B	284483
600-197820-11 DU	ACW-13	Total/NA	Water	6010B	284483
600-197820-21 DU	ACW-23	Total/NA	Water	6010B	284484
600-197820-31 DU	ACW-32D	Total/NA	Water	6010B	284484

Analysis Batch: 284734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-2	ACW-02A	Total/NA	Water	6010B	284520

Analysis Batch: 284764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	6010B	284483
600-197820-3	ACW-04	Total/NA	Water	6010B	284483

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Metals (Continued)

Analysis Batch: 284764 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-4	ACW-05	Total/NA	Water	6010B	284483
600-197820-5	ACW-06	Total/NA	Water	6010B	284483
600-197820-6	ACW-07	Total/NA	Water	6010B	284483
600-197820-7	ACW-09	Total/NA	Water	6010B	284483
600-197820-7	ACW-09	Total/NA	Water	6010B	284483
600-197820-8	ACW-10	Total/NA	Water	6010B	284483
600-197820-9	ACW-11	Total/NA	Water	6010B	284483
600-197820-9	ACW-11	Total/NA	Water	6010B	284483
600-197820-10	ACW-12	Total/NA	Water	6010B	284483
600-197820-11	ACW-13	Total/NA	Water	6010B	284483
600-197820-12	ACW-14	Total/NA	Water	6010B	284483
600-197820-13	ACW-15	Total/NA	Water	6010B	284483
600-197820-15	ACW-17	Total/NA	Water	6010B	284483
600-197820-16	ACW-18	Total/NA	Water	6010B	284483
600-197820-17	ACW-19	Total/NA	Water	6010B	284483
600-197820-18	ACW-20	Total/NA	Water	6010B	284483
600-197820-19	ACW-21	Total/NA	Water	6010B	284483
600-197820-20	ACW-22	Total/NA	Water	6010B	284483
600-197820-21	ACW-23	Total/NA	Water	6010B	284484
600-197820-22	ACW-24	Total/NA	Water	6010B	284484
600-197820-23	ACW-25	Total/NA	Water	6010B	284484
600-197820-23	ACW-25	Total/NA	Water	6010B	284484
600-197820-24	ACW-26	Total/NA	Water	6010B	284484
600-197820-25	ACW-27	Total/NA	Water	6010B	284484
600-197820-26	ACW-28	Total/NA	Water	6010B	284484
600-197820-27	ACW-29	Total/NA	Water	6010B	284484
600-197820-28	ACW-30S	Total/NA	Water	6010B	284484
600-197820-29	ACW-30D	Total/NA	Water	6010B	284484
600-197820-29	ACW-30D	Total/NA	Water	6010B	284484
600-197820-30	ACW-32S	Total/NA	Water	6010B	284484
600-197820-33	ENSR-01	Total/NA	Water	6010B	284484
600-197820-38	DUP-02	Total/NA	Water	6010B	284484
MB 600-284484/1-A	Method Blank	Total/NA	Water	6010B	284484
LCS 600-284484/2-A	Lab Control Sample	Total/NA	Water	6010B	284484
600-197820-1 MS	ACW-01	Total/NA	Water	6010B	284483
600-197820-1 MSD	ACW-01	Total/NA	Water	6010B	284483
600-197820-11 MS	ACW-13	Total/NA	Water	6010B	284483
600-197820-11 MSD	ACW-13	Total/NA	Water	6010B	284483
600-197820-21 MS	ACW-23	Total/NA	Water	6010B	284484
600-197820-21 MSD	ACW-23	Total/NA	Water	6010B	284484
600-197820-1 DU	ACW-01	Total/NA	Water	6010B	284483
600-197820-11 DU	ACW-13	Total/NA	Water	6010B	284483
600-197820-21 DU	ACW-23	Total/NA	Water	6010B	284484

Analysis Batch: 284866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-3	ACW-04	Total/NA	Water	6010B	284483
600-197820-14	ACW-16	Total/NA	Water	6010B	284483
600-197820-16	ACW-18	Total/NA	Water	6010B	284483
600-197820-18	ACW-20	Total/NA	Water	6010B	284483
600-197820-22	ACW-24	Total/NA	Water	6010B	284484

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

General Chemistry

Analysis Batch: 283949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	2540 C-1997	
600-197820-2	ACW-02A	Total/NA	Water	2540 C-1997	
600-197820-3	ACW-04	Total/NA	Water	2540 C-1997	
600-197820-4	ACW-05	Total/NA	Water	2540 C-1997	
600-197820-5	ACW-06	Total/NA	Water	2540 C-1997	
600-197820-6	ACW-07	Total/NA	Water	2540 C-1997	
600-197820-7	ACW-09	Total/NA	Water	2540 C-1997	
600-197820-8	ACW-10	Total/NA	Water	2540 C-1997	
600-197820-10	ACW-12	Total/NA	Water	2540 C-1997	
600-197820-11	ACW-13	Total/NA	Water	2540 C-1997	
600-197820-12	ACW-14	Total/NA	Water	2540 C-1997	
600-197820-13	ACW-15	Total/NA	Water	2540 C-1997	
600-197820-14	ACW-16	Total/NA	Water	2540 C-1997	
600-197820-15	ACW-17	Total/NA	Water	2540 C-1997	
600-197820-16	ACW-18	Total/NA	Water	2540 C-1997	
600-197820-17	ACW-19	Total/NA	Water	2540 C-1997	
600-197820-18	ACW-20	Total/NA	Water	2540 C-1997	
600-197820-19	ACW-21	Total/NA	Water	2540 C-1997	
600-197820-20	ACW-22	Total/NA	Water	2540 C-1997	
MB 600-283949/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-283949/2	Lab Control Sample	Total/NA	Water	2540 C-1997	
600-197820-11 DU	ACW-13	Total/NA	Water	2540 C-1997	
600-197820-13 DU	ACW-15	Total/NA	Water	2540 C-1997	

Analysis Batch: 283982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-21	ACW-23	Total/NA	Water	2540 C-1997	
600-197820-22	ACW-24	Total/NA	Water	2540 C-1997	
600-197820-23	ACW-25	Total/NA	Water	2540 C-1997	
600-197820-24	ACW-26	Total/NA	Water	2540 C-1997	
600-197820-25	ACW-27	Total/NA	Water	2540 C-1997	
600-197820-26	ACW-28	Total/NA	Water	2540 C-1997	
600-197820-27	ACW-29	Total/NA	Water	2540 C-1997	
600-197820-28	ACW-30S	Total/NA	Water	2540 C-1997	
600-197820-29	ACW-30D	Total/NA	Water	2540 C-1997	
600-197820-30	ACW-32S	Total/NA	Water	2540 C-1997	
600-197820-31	ACW-32D	Total/NA	Water	2540 C-1997	
600-197820-32	DOOM	Total/NA	Water	2540 C-1997	
600-197820-33	ENSR-01	Total/NA	Water	2540 C-1997	
600-197820-34	EPNG-01	Total/NA	Water	2540 C-1997	
600-197820-35	OXY	Total/NA	Water	2540 C-1997	
600-197820-36	PTP-01	Total/NA	Water	2540 C-1997	
600-197820-37	DUP-01	Total/NA	Water	2540 C-1997	
600-197820-38	DUP-02	Total/NA	Water	2540 C-1997	
600-197820-39	DUP-03	Total/NA	Water	2540 C-1997	
600-197820-40	DUP-04	Total/NA	Water	2540 C-1997	
MB 600-283982/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-283982/2	Lab Control Sample	Total/NA	Water	2540 C-1997	
600-197820-21 DU	ACW-23	Total/NA	Water	2540 C-1997	
600-197820-31 DU	ACW-32D	Total/NA	Water	2540 C-1997	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

General Chemistry

Analysis Batch: 284000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	2320B-1997	
600-197820-2	ACW-02A	Total/NA	Water	2320B-1997	
600-197820-3	ACW-04	Total/NA	Water	2320B-1997	
600-197820-4	ACW-05	Total/NA	Water	2320B-1997	
600-197820-5	ACW-06	Total/NA	Water	2320B-1997	
600-197820-6	ACW-07	Total/NA	Water	2320B-1997	
600-197820-7	ACW-09	Total/NA	Water	2320B-1997	
600-197820-8	ACW-10	Total/NA	Water	2320B-1997	
600-197820-9	ACW-11	Total/NA	Water	2320B-1997	
600-197820-10	ACW-12	Total/NA	Water	2320B-1997	
600-197820-11	ACW-13	Total/NA	Water	2320B-1997	
600-197820-12	ACW-14	Total/NA	Water	2320B-1997	
600-197820-13	ACW-15	Total/NA	Water	2320B-1997	
600-197820-14	ACW-16	Total/NA	Water	2320B-1997	
600-197820-15	ACW-17	Total/NA	Water	2320B-1997	
600-197820-16	ACW-18	Total/NA	Water	2320B-1997	
MB 600-284000/2	Method Blank	Total/NA	Water	2320B-1997	
LCS 600-284000/3	Lab Control Sample	Total/NA	Water	2320B-1997	
600-197820-12 MS	ACW-14	Total/NA	Water	2320B-1997	
600-197820-12 MSD	ACW-14	Total/NA	Water	2320B-1997	
600-197820-15 MS	ACW-17	Total/NA	Water	2320B-1997	
600-197820-15 MSD	ACW-17	Total/NA	Water	2320B-1997	

Analysis Batch: 284052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-17	ACW-19	Total/NA	Water	2320B-1997	
600-197820-18	ACW-20	Total/NA	Water	2320B-1997	
600-197820-19	ACW-21	Total/NA	Water	2320B-1997	
600-197820-20	ACW-22	Total/NA	Water	2320B-1997	
600-197820-21	ACW-23	Total/NA	Water	2320B-1997	
600-197820-22	ACW-24	Total/NA	Water	2320B-1997	
600-197820-23	ACW-25	Total/NA	Water	2320B-1997	
600-197820-24	ACW-26	Total/NA	Water	2320B-1997	
600-197820-25	ACW-27	Total/NA	Water	2320B-1997	
600-197820-26	ACW-28	Total/NA	Water	2320B-1997	
MB 600-284052/1	Method Blank	Total/NA	Water	2320B-1997	
LCS 600-284052/2	Lab Control Sample	Total/NA	Water	2320B-1997	
600-197820-17 MS	ACW-19	Total/NA	Water	2320B-1997	
600-197820-17 MSD	ACW-19	Total/NA	Water	2320B-1997	

Analysis Batch: 284079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-9	ACW-11	Total/NA	Water	2540 C-1997	
MB 600-284079/1	Method Blank	Total/NA	Water	2540 C-1997	
LCS 600-284079/2	Lab Control Sample	Total/NA	Water	2540 C-1997	

Analysis Batch: 284118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-27	ACW-29	Total/NA	Water	2320B-1997	
600-197820-28	ACW-30S	Total/NA	Water	2320B-1997	
600-197820-29	ACW-30D	Total/NA	Water	2320B-1997	

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QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

General Chemistry (Continued)

Analysis Batch: 284118 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-30	ACW-32S	Total/NA	Water	2320B-1997	
600-197820-31	ACW-32D	Total/NA	Water	2320B-1997	
600-197820-32	DOOM	Total/NA	Water	2320B-1997	
600-197820-33	ENSR-01	Total/NA	Water	2320B-1997	
600-197820-34	EPNG-01	Total/NA	Water	2320B-1997	
600-197820-35	OXY	Total/NA	Water	2320B-1997	
600-197820-36	PTP-01	Total/NA	Water	2320B-1997	
600-197820-37	DUP-01	Total/NA	Water	2320B-1997	
600-197820-38	DUP-02	Total/NA	Water	2320B-1997	
600-197820-39	DUP-03	Total/NA	Water	2320B-1997	
600-197820-40	DUP-04	Total/NA	Water	2320B-1997	
MB 600-284118/2	Method Blank	Total/NA	Water	2320B-1997	
LCS 600-284118/3	Lab Control Sample	Total/NA	Water	2320B-1997	
600-197820-27 MS	ACW-29	Total/NA	Water	2320B-1997	
600-197820-27 MSD	ACW-29	Total/NA	Water	2320B-1997	
600-197820-37 MS	DUP-01	Total/NA	Water	2320B-1997	
600-197820-37 MSD	DUP-01	Total/NA	Water	2320B-1997	

Analysis Batch: 284322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-1	ACW-01	Total/NA	Water	120.1	
600-197820-2	ACW-02A	Total/NA	Water	120.1	
600-197820-3	ACW-04	Total/NA	Water	120.1	
600-197820-4	ACW-05	Total/NA	Water	120.1	
600-197820-5	ACW-06	Total/NA	Water	120.1	
600-197820-6	ACW-07	Total/NA	Water	120.1	
600-197820-7	ACW-09	Total/NA	Water	120.1	
600-197820-8	ACW-10	Total/NA	Water	120.1	
600-197820-9	ACW-11	Total/NA	Water	120.1	
600-197820-10	ACW-12	Total/NA	Water	120.1	
600-197820-11	ACW-13	Total/NA	Water	120.1	
600-197820-12	ACW-14	Total/NA	Water	120.1	
600-197820-13	ACW-15	Total/NA	Water	120.1	
600-197820-14	ACW-16	Total/NA	Water	120.1	
600-197820-15	ACW-17	Total/NA	Water	120.1	
600-197820-16	ACW-18	Total/NA	Water	120.1	
600-197820-17	ACW-19	Total/NA	Water	120.1	
600-197820-18	ACW-20	Total/NA	Water	120.1	
600-197820-19	ACW-21	Total/NA	Water	120.1	
600-197820-20	ACW-22	Total/NA	Water	120.1	
600-197820-21	ACW-23	Total/NA	Water	120.1	
600-197820-22	ACW-24	Total/NA	Water	120.1	
600-197820-23	ACW-25	Total/NA	Water	120.1	
600-197820-24	ACW-26	Total/NA	Water	120.1	
600-197820-25	ACW-27	Total/NA	Water	120.1	
600-197820-26	ACW-28	Total/NA	Water	120.1	
600-197820-27	ACW-29	Total/NA	Water	120.1	
600-197820-28	ACW-30S	Total/NA	Water	120.1	
600-197820-29	ACW-30D	Total/NA	Water	120.1	
600-197820-30	ACW-32S	Total/NA	Water	120.1	
600-197820-31	ACW-32D	Total/NA	Water	120.1	

Eurofins TestAmerica, Houston

QC Association Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

General Chemistry (Continued)

Analysis Batch: 284322 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-197820-32	DOOM	Total/NA	Water	120.1	
600-197820-33	ENSR-01	Total/NA	Water	120.1	
600-197820-34	EPNG-01	Total/NA	Water	120.1	
600-197820-35	OXY	Total/NA	Water	120.1	
600-197820-36	PTP-01	Total/NA	Water	120.1	
600-197820-37	DUP-01	Total/NA	Water	120.1	
600-197820-38	DUP-02	Total/NA	Water	120.1	
600-197820-39	DUP-03	Total/NA	Water	120.1	
600-197820-40	DUP-04	Total/NA	Water	120.1	
MB 600-284322/1	Method Blank	Total/NA	Water	120.1	
MB 600-284322/31	Method Blank	Total/NA	Water	120.1	
MB 600-284322/59	Method Blank	Total/NA	Water	120.1	
MB 600-284322/87	Method Blank	Total/NA	Water	120.1	
LCS 600-284322/2	Lab Control Sample	Total/NA	Water	120.1	
LCS 600-284322/32	Lab Control Sample	Total/NA	Water	120.1	
LCS 600-284322/60	Lab Control Sample	Total/NA	Water	120.1	
LCS 600-284322/88	Lab Control Sample	Total/NA	Water	120.1	
600-197820-17 DU	ACW-19	Total/NA	Water	120.1	
600-197820-28 DU	ACW-30S	Total/NA	Water	120.1	
600-197820-29 DU	ACW-30D	Total/NA	Water	120.1	
600-197820-37 DU	DUP-01	Total/NA	Water	120.1	
600-197820-39 DU	DUP-03	Total/NA	Water	120.1	

Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-01

Lab Sample ID: 600-197820-1

Date Collected: 12/18/19 13:35

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	283882	12/24/19 11:16	YX1	TAL HOU
Total/NA	Analysis	8260B	DL	20	284012	12/25/19 13:04	RP	TAL HOU
Total/NA	Analysis	300.0		500	284378	12/31/19 16:10	SKR	TAL HOU
Total/NA	Analysis	300.0		1	284490	01/03/20 08:07	W1N	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 13:19	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		50	284764	01/08/20 16:01	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:08	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-02A

Lab Sample ID: 600-197820-2

Date Collected: 12/18/19 13:25

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	284127	12/27/19 03:48	YX1	TAL HOU
Total/NA	Analysis	300.0		250	284378	12/31/19 10:17	SKR	TAL HOU
Total/NA	Analysis	300.0		20	284475	01/02/20 07:33	SKR	TAL HOU
Total/NA	Prep	3010A			284520	01/04/20 18:12	CLD	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:32	KP1	TAL HOU
Total/NA	Prep	3010A			284520	01/04/20 18:12	CLD	TAL HOU
Total/NA	Analysis	6010B		20	284734	01/08/20 12:06	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:15	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-04

Lab Sample ID: 600-197820-3

Date Collected: 12/18/19 15:05

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 03:22	YX1	TAL HOU
Total/NA	Analysis	300.0		1000	284378	12/31/19 10:28	SKR	TAL HOU
Total/NA	Analysis	300.0		10000	284475	01/02/20 08:05	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:15	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 14:30	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		500	284866	01/09/20 13:40	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-04

Lab Sample ID: 600-197820-3

Date Collected: 12/18/19 15:05

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:20	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-05

Lab Sample ID: 600-197820-4

Date Collected: 12/18/19 12:25

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284012	12/25/19 12:36	RP	TAL HOU
Total/NA	Analysis	300.0		200	284378	12/31/19 11:08	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:17	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 14:35	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:26	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-06

Lab Sample ID: 600-197820-5

Date Collected: 12/18/19 11:35

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284012	12/25/19 13:33	RP	TAL HOU
Total/NA	Analysis	300.0		100	284378	12/31/19 11:19	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:19	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 16:09	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:31	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-07

Lab Sample ID: 600-197820-6

Date Collected: 12/18/19 14:55

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 05:33	YX1	TAL HOU
Total/NA	Analysis	300.0		200	284378	12/31/19 11:30	SKR	TAL HOU
Total/NA	Analysis	300.0		20	284475	01/02/20 08:16	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:21	KP1	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-07

Lab Sample ID: 600-197820-6

Date Collected: 12/18/19 14:55

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		20	284764	01/08/20 16:11	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:38	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-09

Lab Sample ID: 600-197820-7

Date Collected: 12/18/19 11:55

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 05:59	YX1	TAL HOU
Total/NA	Analysis	300.0		500	284378	12/31/19 11:41	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:23	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 16:13	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		50	284764	01/08/20 16:16	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:43	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-10

Lab Sample ID: 600-197820-8

Date Collected: 12/18/19 13:30

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 06:25	YX1	TAL HOU
Total/NA	Analysis	300.0		200	284378	12/31/19 11:51	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:26	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		5	284764	01/08/20 16:18	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 12:15	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-11

Lab Sample ID: 600-197820-9

Date Collected: 12/18/19 16:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 06:52	YX1	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-11

Lab Sample ID: 600-197820-9

Date Collected: 12/18/19 16:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1000	284378	12/31/19 12:24	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:28	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 16:27	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		50	284764	01/08/20 16:30	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 12:20	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	284079	12/26/19 11:50	TNL	TAL HOU

Client Sample ID: ACW-12

Lab Sample ID: 600-197820-10

Date Collected: 12/18/19 14:15

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 07:18	YX1	TAL HOU
Total/NA	Analysis	300.0		100	284378	12/31/19 12:34	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:36	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		5	284764	01/08/20 16:20	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 12:25	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-13

Lab Sample ID: 600-197820-11

Date Collected: 12/18/19 15:05

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 07:44	YX1	TAL HOU
Total/NA	Analysis	300.0		50	284378	12/31/19 12:45	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:38	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 16:32	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 12:30	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-14

Lab Sample ID: 600-197820-12

Date Collected: 12/18/19 14:05

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 08:11	YX1	TAL HOU
Total/NA	Analysis	300.0		5	284378	12/31/19 13:18	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:46	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 16:39	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 12:45	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-15

Lab Sample ID: 600-197820-13

Date Collected: 12/18/19 10:20

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 08:37	YX1	TAL HOU
Total/NA	Analysis	300.0		10	284378	12/31/19 13:28	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:48	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 16:41	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:49	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-16

Lab Sample ID: 600-197820-14

Date Collected: 12/18/19 11:05

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 09:04	YX1	TAL HOU
Total/NA	Analysis	300.0		500	284378	12/31/19 13:39	SKR	TAL HOU
Total/NA	Analysis	300.0		1	284490	01/03/20 07:34	W1N	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:50	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		50	284866	01/09/20 14:30	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 13:01	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-17

Lab Sample ID: 600-197820-15

Date Collected: 12/18/19 12:10

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 09:30	YX1	TAL HOU
Total/NA	Analysis	300.0		500	284378	12/31/19 13:50	SKR	TAL HOU
Total/NA	Analysis	300.0		1	284490	01/03/20 07:45	W1N	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:52	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 16:45	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 11:33	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-18

Lab Sample ID: 600-197820-16

Date Collected: 12/18/19 12:45

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 09:56	YX1	TAL HOU
Total/NA	Analysis	300.0		1000	284378	12/31/19 14:01	SKR	TAL HOU
Total/NA	Analysis	300.0		10000	284475	01/02/20 08:48	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 15:54	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 16:53	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		500	284866	01/09/20 14:32	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284000	12/24/19 11:48	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-19

Lab Sample ID: 600-197820-17

Date Collected: 12/18/19 15:10

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284012	12/25/19 09:54	RP	TAL HOU
Total/NA	Analysis	8260B	DL	5	284127	12/27/19 04:40	YX1	TAL HOU
Total/NA	Analysis	300.0		100	284378	12/31/19 14:11	SKR	TAL HOU
Total/NA	Analysis	300.0		1	284490	01/03/20 07:56	W1N	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:07	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 16:58	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-19

Lab Sample ID: 600-197820-17

Date Collected: 12/18/19 15:10

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 14:31	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-20

Lab Sample ID: 600-197820-18

Date Collected: 12/18/19 14:20

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284012	12/25/19 10:20	RP	TAL HOU
Total/NA	Analysis	8260B	DL	5	284127	12/27/19 05:07	YX1	TAL HOU
Total/NA	Analysis	300.0		1000	284378	12/31/19 14:22	SKR	TAL HOU
Total/NA	Analysis	300.0		10000	284475	01/02/20 09:31	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:09	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 17:00	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		500	284866	01/09/20 15:40	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 14:49	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-21

Lab Sample ID: 600-197820-19

Date Collected: 12/18/19 16:50

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	284127	12/27/19 04:14	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284378	12/31/19 14:54	SKR	TAL HOU
Total/NA	Analysis	300.0		1	284475	01/02/20 09:42	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:11	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 17:04	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 14:55	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-22

Lab Sample ID: 600-197820-20

Date Collected: 12/18/19 12:45

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284012	12/25/19 11:14	RP	TAL HOU

Eurofins TestAmerica, Houston

Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-22

Lab Sample ID: 600-197820-20

Date Collected: 12/18/19 12:45

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	284378	12/31/19 15:27	SKR	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:13	KP1	TAL HOU
Total/NA	Prep	3010A			284483	01/02/20 10:19	DCL	TAL HOU
Total/NA	Analysis	6010B		5	284764	01/08/20 17:06	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 15:01	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283949	12/24/19 09:53	TNL	TAL HOU

Client Sample ID: ACW-23

Lab Sample ID: 600-197820-21

Date Collected: 12/18/19 11:10

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 10:23	YX1	TAL HOU
Total/NA	Analysis	300.0		50	284378	12/31/19 15:59	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:21	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		5	284764	01/08/20 15:13	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 15:06	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ACW-24

Lab Sample ID: 600-197820-22

Date Collected: 12/18/19 10:45

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 10:50	YX1	TAL HOU
Total/NA	Analysis	300.0		1000	284420	01/01/20 02:08	SKR	TAL HOU
Total/NA	Analysis	300.0		10000	284475	01/02/20 10:25	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:35	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 15:21	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		500	284866	01/09/20 18:23	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 15:12	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-25

Lab Sample ID: 600-197820-23

Date Collected: 12/18/19 13:15

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 11:16	YX1	TAL HOU
Total/NA	Analysis	300.0		1000	284420	01/01/20 02:29	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:37	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 15:25	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		50	284764	01/08/20 15:27	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 15:17	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ACW-26

Lab Sample ID: 600-197820-24

Date Collected: 12/18/19 10:55

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284127	12/27/19 11:43	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284420	01/01/20 02:49	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:39	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 15:35	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 15:22	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ACW-27

Lab Sample ID: 600-197820-25

Date Collected: 12/18/19 12:05

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284265	12/28/19 17:29	KLV	TAL HOU
Total/NA	Analysis	300.0		100	284420	01/01/20 03:09	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:41	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		5	284764	01/08/20 15:37	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 15:28	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-28

Lab Sample ID: 600-197820-26

Date Collected: 12/18/19 10:30

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 06:04	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284490	01/03/20 08:39	W1N	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:43	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 15:39	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284052	12/24/19 15:33	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ACW-29

Lab Sample ID: 600-197820-27

Date Collected: 12/18/19 10:15

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 06:30	YX1	TAL HOU
Total/NA	Analysis	300.0		2	284475	01/02/20 10:47	SKR	TAL HOU
Total/NA	Analysis	300.0		20	284490	01/03/20 08:50	W1N	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:45	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 15:41	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 10:25	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ACW-30S

Lab Sample ID: 600-197820-28

Date Collected: 12/18/19 09:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 06:56	YX1	TAL HOU
Total/NA	Analysis	300.0		2	284475	01/02/20 10:58	SKR	TAL HOU
Total/NA	Analysis	300.0		20	284490	01/03/20 09:00	W1N	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:47	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284764	01/08/20 15:43	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 10:42	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: ACW-30D

Lab Sample ID: 600-197820-29

Date Collected: 12/18/19 09:50

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 07:23	YX1	TAL HOU
Total/NA	Analysis	300.0		1000	284475	01/02/20 11:30	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:55	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		10	284764	01/08/20 15:45	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		50	284764	01/08/20 15:47	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 10:47	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ACW-32S

Lab Sample ID: 600-197820-30

Date Collected: 12/18/19 08:50

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 07:49	YX1	TAL HOU
Total/NA	Analysis	300.0		100	284475	01/02/20 11:41	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 16:58	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		5	284764	01/08/20 15:49	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 10:51	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ACW-32D

Lab Sample ID: 600-197820-31

Date Collected: 12/18/19 09:35

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 08:16	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284475	01/02/20 11:52	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:00	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 10:56	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: DOOM

Lab Sample ID: 600-197820-32

Date Collected: 12/18/19 13:55

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 08:42	YX1	TAL HOU
Total/NA	Analysis	300.0		1	284475	01/02/20 12:02	SKR	TAL HOU
Total/NA	Analysis	300.0		20	284490	01/03/20 09:11	W1N	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:07	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 11:02	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: ENSR-01

Lab Sample ID: 600-197820-33

Date Collected: 12/18/19 11:55

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284265	12/28/19 17:02	KLV	TAL HOU
Total/NA	Analysis	300.0		500	284475	01/02/20 12:13	SKR	TAL HOU
Total/NA	Analysis	300.0		50	284490	01/03/20 09:43	W1N	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:09	KP1	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		50	284764	01/08/20 15:51	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 11:08	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: EPNG-01

Lab Sample ID: 600-197820-34

Date Collected: 12/18/19 13:10

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 09:36	YX1	TAL HOU
Total/NA	Analysis	300.0		10	284475	01/02/20 12:24	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:11	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 11:13	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: OXY

Lab Sample ID: 600-197820-35

Date Collected: 12/18/19 14:20

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 10:03	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284475	01/02/20 12:35	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:13	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 11:18	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: PTP-01

Lab Sample ID: 600-197820-36

Date Collected: 12/18/19 13:15

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 10:30	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284475	01/02/20 13:07	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:21	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 11:24	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: DUP-01

Lab Sample ID: 600-197820-37

Date Collected: 12/18/19 10:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 10:57	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284475	01/02/20 13:39	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:23	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 11:39	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: DUP-02

Lab Sample ID: 600-197820-38

Date Collected: 12/18/19 12:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 11:24	YX1	TAL HOU
Total/NA	Analysis	300.0		100	284475	01/02/20 14:12	SKR	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:25	KP1	TAL HOU

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Lab Chronicle

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Client Sample ID: DUP-02

Lab Sample ID: 600-197820-38

Date Collected: 12/18/19 12:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		5	284764	01/08/20 15:53	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 11:56	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: DUP-03

Lab Sample ID: 600-197820-39

Date Collected: 12/18/19 11:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 11:51	YX1	TAL HOU
Total/NA	Analysis	300.0		20	284490	01/03/20 10:05	W1N	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:28	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 12:01	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: DUP-04

Lab Sample ID: 600-197820-40

Date Collected: 12/18/19 10:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 12:19	YX1	TAL HOU
Total/NA	Analysis	300.0		2	284475	01/02/20 14:33	SKR	TAL HOU
Total/NA	Analysis	300.0		20	284490	01/03/20 10:16	W1N	TAL HOU
Total/NA	Prep	3010A			284484	01/02/20 10:22	DCL	TAL HOU
Total/NA	Analysis	6010B		1	284665	01/07/20 17:30	KP1	TAL HOU
Total/NA	Analysis	120.1		1	284322	12/28/19 18:35	KRD	TAL HOU
Total/NA	Analysis	2320B-1997		1	284118	12/26/19 12:07	DTN	TAL HOU
Total/NA	Analysis	2540 C-1997		1	283982	12/24/19 11:51	TNL	TAL HOU

Client Sample ID: Trip Blank-01

Lab Sample ID: 600-197820-41

Date Collected: 12/18/19 00:00

Matrix: Water

Date Received: 12/19/19 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	284230	12/28/19 03:52	YX1	TAL HOU

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Eurofins TestAmerica, Houston

Accreditation/Certification Summary

Client: AECOM

Job ID: 600-197820-1

Project/Site: JAL#4 Gas Plant--4Q GW -12/18/19

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-19-25	10-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
120.1		Water	Specific Conductance
2320B-1997		Water	Bicarbonate Alkalinity as CaCO ₃
2320B-1997		Water	Carbonate Alkalinity as CaCO ₃

Chain of Custody Record

Client Information Client Contact: Mr. Wallace Gilmore Company: AECOM Address: 19219 Katy Freeway Suite 100 City: Houston State, Zip: TX, 77094 Phone: 713-520-9901(Tel) 713-520-6801(Fax) Email: wallace.gilmore@aecom.com Project Name: JAL#4 Gas Plant Site:		Sample: Scott Ude Phone: 832-347-4521 Lab P#1 McDaniel, Bethany A E-Mail: bethany.mcdaniel@testamericac.com		CQC No: 600-12713-199/1.1 Page: 1 of 4 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): P.O. #: WD801914 WO #: 60008415 Project #: 60008415 SOW#:					
Sample Identification ACW-01 ACW-02A ACW-04 ACW-05 ACW-06 ACW-07 ACW-09 ACW-10 ACW-11 ACW-12 ACW-13		Sample Date 12/18/19 1335 1335 1505 1225 1135 1455 1155 1330 1600 1415 1505	Sample Type (C=Comp, G=grab) G G G G G G G G G G G	Matrix (Water, Sealed, On-waterfill, RT-Tissue, A-Au) Water Water Water Water Water Water Water Water Water Water Water	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 6010B - Ca, Na, Mg, K 8260B LL - BTEX Only 2540C Calcd-TDS 120.1 Cond, 2320B-AIK, 300-ORGM-280-Cl and SO4
Total Number of Containers		Special Instructions/Note: 600-197820 Chain of Custody			
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - 12504 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)					
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
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:					
Empty Kit Relinquished by:					
Relinquished by: Scott Ude		Date/Time: 12/18/19 1800		Company: HMI	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	
Δ Yes Δ No		Date:		Method of Shipment: FedEx	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	

Chain of Custody Record

Client Information Client Contact Mr. Wallace Gilmore Company AECOM Address 19219 Katy Freeway Suite 100 City Houston State Zip TX, 77054 Phone 713-520-9501 (Tel) 713-520-5501 (Fax) Email wallace.gilmore@aecom.com Project # JAL#4 Gas Plant Site		Sampler Scott Wade Phone 832-347-4521 Lab (P.O.) McDaniel, Bethany A E-Mail bethany.mcdaniel@testamericainc.com		Carrier Tracking No(s) COC No 600-72713-19971 1 Page 2 of 4 Job #							
Due Date Requested: TAT Requested (days): PO # WD801014 WO # Project # 60008415 SSOW#		Analysis Requested									
Sample Identification ACW-14 ACW-15 ACW-16 ACW-17 ACW-18 ACW-19 ACW-20 ACW-21 ACW-22 ACW-23 ACW-24		Sample Date 12/18/19	Sample Time 1405	Sample Type (C=Comp, G=Grab) G	Matrix (W=Water, S=solid, Q=on-site) Water	Field Filtered Sample (Yes or No) N	Perform MS/MSD (Yes or No) N	6010B - Ca, Na, Mg, K 8260B - LL - BTEX Only 2540C - Col'd-TDS 120.1-Cond, 2320B-Alk, 300-ORGM, 280-Cl and SO4	Total Number of Containers	Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - ISP Uodecathylate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	Special Instructions/Note: Special Instructions/Note:
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months							
Empty Kit Relinquished by:		Date:		Method of Shipment: FedEx							
Relinquished by: Scott Wade		Date/Time: 12/18/19 1800		Company: TFAH							
Relinquished by:		Date/Time:		Company:							
Relinquished by:		Date/Time:		Company:							
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:							

Chain of Custody Record

Client Information Client Contact: Mr. Wallace Gilmore Company: AECOM Address: 19219 Katy Freeway Suite 100 City: Houston State: TX, Zip: 77094 Phone: 713-520-9900(Tel) 713-520-6800(Fax) Email: wallace.gilmore@aecom.com Project Name: JAL#4 Gas Plant Site:		Sample ID: SWR 140 Phone: 832-347-4531 E-Mail: bethany.mcdaniel@testamericainc.com I go to: McDaniel, Bethany A Carrier Tracking Note:		COC No: 600-72713-19971.1 Page: 3 of 4 Job #:	
Due Date Requested: TAT Requested (days): PO #: WD801914 WO #: Project #: 60008415 SOW#:		Analysis Requested 120-1-Cond, 2320B-AIK, 300_ORGFM, 28D-CI and SO4 2540C, Calcd-TDS 8260B, LL - BTEX Only 6010B - Ca, Na, Mg, K Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)			
Sample Identification ACW-25 ACW-26 ACW-27 ACW-28 ACW-29 ACW-30S ACW-30D ACW-32S ACW-32D Doom ENSR-01		Sample Date 12/18/19 1055 1205 1030 1015 400 950 850 935 1355 1155		Sample Time 1315 1055 1205 1030 1015 400 950 850 935 1355 1155	
Matrix (W=water, S=solid, O=oil, T=tissue, A=air) Preservation Code: G Water Water Water Water Water Water Water Water Water Water		Total Number of Containers Special Instructions/Note:			
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months			
Empty Kit Relinquished by: Relinquished by: SWR 140 Relinquished by: Relinquished by:		Date: 12/18/19 1800 Date/Time: Date/Time: Date/Time:			
Custody Seals Intact: Yes ☐ No ☐		Cooler Temperature(s) °C and Other Remarks:			

Chain of Custody Record

Client Information Client Contact: Mr. Wallace Gimore Company: AECOM Address: 19219 Katy Freeway Suite 100 City: Houston State, Zip: TX, 77094 Phone: 713-520-9901(Tel) 713-520-6800(Fax) Email: wallace.gimore@aecom.com Project Name: JAL#4 Gas Plant Site:		Sample ID: Scot Ude Project #: 832-347-4521 SOW#:		Lab PM: McDaniel, Bethany A E-Mail: bethany.mcdaniel@testamericac.com C- Mail:		Carrier Tracking Note: COC No: 900-72713-19971.1 Page 4 of 4 Job #	
Due Date Requested: TAT Requested (days):		Analysis Requested					
Matrix (Water, Solid, Gas, Soil, etc.) Sample Type (C=comp, G=grab) Sample Time Sample Date Preservation Code		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 6010B - Ca, Na, Mg, K 8260B - LL - BTEX Only 2540C - Calcd - TDS 120.1 - Cond, 2320B - Alk, 300 - ORGM, 280 - Cl and SO4		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Ascorbic Acid H - Ice I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)			
Sample Identification EPNG-01 Oxy PTP-01 Dup-01 Dup-02 Dup-03 Dup-04 Trip Blank-01		Sample Date 12/18/19 1310 1420 1315 1000 1200 1100 1000 -		Sample Time 1310 1420 1315 1000 1200 1100 1000 -		Total Number of Containers Special Instructions/Note:	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested I, II, III, IV, Other (specify)							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months							
Empty Kit Relinquished by:							
Relinquished by: Scot Ude Date/Time: 12/18/19 1800		Relinquished by: JAH Date/Time: 12/19/19 1240		Relinquished by: JAH Date/Time: 12/19/19 1240		Company: JAH Company: JAH Company: JAH	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:					

19 DEC 19 12:41

Sample Receipt Checklist

Date/Time Received: _____

JOB NUMBER: _____

CLIENT: AccomUNPACKED BY: YRCARRIER/DRIVER: FedExCustody Seal Present: ☒ YES ☐ NONumber of Coolers Received: 7

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
4039	X / N	Y / N	1.3	676	+0.1	1.4
4061	X / N	Y / N	0.9	1	1	1.0
4028	X / N	Y / N	1.4	1	1	1.5
4072	X / N	Y / N	0.4	1	1	0.5
4083	X / N	Y / N	0.9	1	1	1.0
4050	X / N	Y / N	1.1	1	1	1.2

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are > pH 12: ☐ YES ☐ NOAcid preserved are < pH 2: ☒ YES ☐ NOTX1005 samples frozen upon receipt: ☐ YES

DATE & TIME PUT IN FREEZER: _____

pH paper Lot # Hc991818VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☒ YES ☐ NO

COMMENTS:

YR 12/19/19

Eurofins TestAmerica Houston

Loc: 600
197820Environment Testing
TestAmerica

19 DEC 19 12:41

Sample Receipt Checklist

JOB NUMBER: _____

Date/Time Received: _____

CLIENT: AecomUNPACKED BY: YJRCARRIER/DRIVER: FedExCustody Seal Present: ☒ YES ☐ NO

Number of Coolers Received: _____

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
4040	X / N	X / N	1.6	676	+0.1	1.7
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NOLABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YESBase samples are > pH 12: ☐ YES ☐ NOAcid preserved are < pH 2: ☒ YES ☐ NOTX1005 samples frozen upon receipt: ☐ YES DATE & TIME PUT IN FREEZER: _____pH paper Lot # Hc991818VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?

☐ YES ☐ NO

COMMENTS:

YJR 12/19/19

Login Sample Receipt Checklist

Client: AECOM

Job Number: 600-197820-1

Login Number: 197820

List Source: Eurofins TestAmerica, Houston

List Number: 1

Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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	1.4, 1.0, 1.5, 0.5, 1.0, 1.2, 1.7
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 (excluding tests with immediate HTs)	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 $<6\text{mm}$ (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.

Date: February 11, 2020

To: Wally Gilmore, ECOM

CC: Robert Jones, AECOM

From: Ruth Parks, AECOM

Subject: Data Usability Summary for Review of Groundwater Data
Laboratory Report Number 197820
Jal #4 Gas Plant, Jal, New Mexico

Data Usability Summary

Data from TestAmerica in Houston, Texas were reviewed for the analysis of samples collected December 18, 2019 at the Jal #4 Gas Plant in Jal, New Mexico.

Data were reviewed for conformance to the requirements of *SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (SW-846). The purpose of this sampling event was to provide current data on concentrations of potential chemicals of concern (COCs) in groundwater for the Jal #4 Gas Plant property.

Samples were analyzed using:

- SW-846 6010B – Inductively Coupled Plasma – Atomic Emission Spectrometry,
- SW-846 8260B - Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry (GC/MS),
- SW-846 300.0 – Determination of Inorganic Anions by Ion Chromatograph,
- SW-846 120.1 – Conductivity, Specific Conductance, and
- SW-846 2540 C-1997 – Total Dissolved Solids (Dried at 180 C).

Data were reviewed and the results are discussed in this Data Usability Summary (DUS). The reportable data, quality control results, sample receipt checklist and chain-of-custody (C-O-C) records were examined for laboratory report 197820.

Introduction

Groundwater samples, field duplicates, and a trip blank were analyzed for site-specific metals, volatile organic compounds (VOCs), inorganic anions, specific conductivity, and total dissolved solids (TDS) as requested on the chain-of-custodies (C-O-C). **Table B-1** lists the sample identifications cross-referenced to the laboratory identifications.

Analytical Results

Qualified data are listed in **Table B-2**.

Preservation and Holding Times

All samples were evaluated for agreement with the chain-of-custody (C-O-C). Sample bottles were received in good condition and within the temperature acceptance criteria of $\leq 6^{\circ}\text{C}$. Samples were prepared and analyzed within the holding times specified in SW-846 Table 2-40.

Calibrations

Calibration data were not submitted in this package and are not part of the standard deliverable.

Blanks

The following analytes were detected in blanks:

Sample	Analyte	Blank Type	Concentration (mg/L)	Qualified Concentration (mg/L)
MB 600-284378/37	Chloride	Method	0.306 J	1.53
MB 600-284378/37	Sulfate	Method	0.281 J	1.405
MB 600-284378/6	Chloride	Method	0.300 J	1.5
MB 600-284420/4	Chloride	Method	0.174 J	0.87
MB 600-284475/37	Chloride	Method	0.301 J	1.505
MB 600-284475/6	Chloride	Method	0.302 J	1.51
MB 600-284475/6	Sulfate	Method	0.241 J	1.205
MB 600-284490/6	Chloride	Method	0.300 J	1.5
MB 600-284505/6	Chloride	Method	0.298 J	1.49
MB 600-284483/1-A	Sodium	Method	0.110 J	0.55
MB 600-284484/1-A	Potassium	Method	0.0670 J	0.335
MB 600-284484/1-A	Magnesium	Method	0.0614 J	0.307
MB 600-284484/1-A	Sodium	Method	0.0865 J	0.4325
MB 600-284520/1-A	Sodium	Method	0.361 J	1.805

Groundwater concentrations in associated samples with analyte concentrations $< 5\text{X}$ the blank concentration, except methylene chloride, acetone, 2-butanone, cyclohexane and phthalates which are qualified at $< 10\text{X}$ the blank concentration, are qualified as “U” for organics or “JH” for inorganics and listed in **Table B-2**. No other data were qualified.

Internal Standards and Surrogate Recoveries

Results with internal standard area counts above the laboratory specifications are qualified as “JL” and below specifications are qualified as “JH” for detected results and “UJL” for non-detected results and listed in **Table B-2**.

Laboratory Control Samples

Samples with laboratory control sample (LCS) recoveries (%R) outside of laboratory specifications are qualified as “JL” and “UJL” when below specifications and as “JH” when above specifications and listed in **Table B-2**. If a laboratory control sampled duplicate (LCSD) was analyzed, data with duplicate precision (as relative percent difference [RPD]) outside of laboratory acceptance criteria is qualified as “J” for LCS precision and listed in **Table B-2**.

Matrix Spike (MS)/Matrix Spike Duplicates (MSD)

Non-project sample data were not evaluated. Data with MS/MSD recoveries outside of laboratory specifications are qualified as “JL” for detections and “UJ” for non-detects when below specifications and “JH” when above specifications and listed in **Table B-2**. Sample data with MS/MSD precision (RPD) outside of the laboratory acceptance criteria are qualified as “J” for MS/MSD precision and listed in **Table B-2**.

Field Precision

Precision results for replicate and duplicate samples are summarized in **Table B-3**. Duplicate precision was not calculated for analytes which were reported as non-detect (U) or qualified as “U” in **Table B-2**. Analytes with non-detect results for both replicate and duplicate were not listed in the table. Field sample and sample duplicate analytes with RPD results outside of the project quality acceptance criteria of $\leq 30\%$ RPD are qualified as estimated “J” and listed in **Table B-2**.

Summary

Groundwater analytical data are usable for the purpose of determining concentrations of metals, VOCs, inorganics anions, specific conductivity, and TDS in samples.

Tables

Table B-1. Cross-Reference Field Sample Identifications and Laboratory Identifications

Field Identification	Laboratory Identification	Comment
ACW-01	600-197820-1	MS/MSD
ACW-02A	600-197820-2	MS/MSD
ACW-04	600-197820-3	
ACW-05	600-197820-4	

ACW-06	600-197820-5	
ACW-07	600-197820-6	
ACW-09	600-197820-7	
ACW-10	600-197820-8	MS/MSD
ACW-11	600-197820-9	
ACW-12	600-197820-10	
ACW-13	600-197820-11	MS/MSD
ACW-14	600-197820-12	MS/MSD
ACW-15	600-197820-13	
ACW-16	600-197820-14	
ACW-17	600-197820-15	MS/MSD
ACW-18	600-197820-16	
ACW-19	600-197820-17	MS/MSD
ACW-20	600-197820-18	
ACW-21	600-197820-19	
ACW-22	600-197820-20	MS/MSD
ACW-23	600-197820-21	MS/MSD
ACW-24	600-197820-22	
ACW-25	600-197820-23	
ACW-26	600-197820-24	
ACW-27	600-197820-25	
ACW-28	600-197820-26	MS/MSD
ACW-29	600-197820-27	MS/MSD
ACW-30S	600-197820-28	
ACW-30D	600-197820-29	
ACW-32S	600-197820-30	
ACW-32D	600-197820-31	MS/MSD
Doom Well	600-197820-32	MS/MSD
ENSR-01	600-197820-33	

EPNG-01	600-197820-34	
OXY Well	600-197820-35	
PTP-01	600-197820-36	
DUP-01	600-197820-37	MS/MSD - Duplicate of ACW-26
DUP-02	600-197820-38	Duplicate of ACW-27
DUP-03	600-197820-39	Duplicate of ACW-28
DUP-04	600-197820-40	Duplicate of ACW-29
TB-01	600-197820-41	Trip Blank

Table B-2. Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
ACW-28	Chloride	J	Field Precision RPD
ACW-28	Sulfate	J	Field Precision RPD
DUP-03	Chloride	J	Field Precision RPD
DUP-03	Sulfate	J	Field Precision RPD
J – Estimated data; the sample concentration is approximated. H – Bias in sample result is likely high. L – Bias in sample result is likely low. R – Data is rejected. U – Not detected.			

Table B-3. Field Precision

Field Identification	Analyte	Sample Result	Duplicate Result	RPD	Qualified
ACW-26/DUP-01	Chloride	260	230	12.2	A
	Sulfate	93	89	4.4	A
	Calcium	75	75	0.0	A
	Potassium	3.3	3	9.5	A
	Magnesium	12	11	8.7	A
	Sodium	170	160	6.1	A
	Spec Cond	1300	1300	0.0	A
	Alkalinity	200	200	0.0	A
	Bicarbonate	200	200	0.0	A
	TDS	600	640	6.5	A
ACW-27/DUP-02	Benzene	0.0005	0.0005	0.0	A
	Chloride	1200	1200	0.0	A
	Sulfate	91	140	42.4	A*

	Calcium	310	300	3.3	A
	Potassium	8.8	8.4	4.7	A
	Magnesium	98	98	0.0	A
	Sodium	330	340	3.0	A
	Spec Cond	4100	4100	0.0	A
	Alkalinity	220	210	4.7	A
	Bicarbonate	220	210	4.7	A
	TDS	3200	3200	0.0	A
ACW-28/DUP-03	Chloride	54	84	43.5	J
	Sulfate	55	95	53.3	J
	Calcium	71	70	1.4	A
	Potassium	3.9	3.8	2.6	A
	Magnesium	11	11	0.0	A
	Sodium	79	74	6.5	A
	Spec Cond	820	810	1.2	A
	Alkalinity	170	160	6.1	A
	Bicarbonate	170	160	6.1	A
	TDS	450	440	2.2	A
ACW-29/DUP-04	Chloride	44	41	7.1	A
	Sulfate	110	110	0.0	A
	Calcium	44	44	0.0	A
	Potassium	4.4	4.3	2.3	A
	Magnesium	15	15	0.0	A
	Sodium	83	77	7.5	A
	Spec Cond	730	730	0.0	A
	Alkalinity	170	170	0.0	A
	Bicarbonate	170	170	0.0	A
	TDS	390	410	5.0	A
RPD = ((SR-DR)*200)/(SR+DR) A – Acceptable data A* - Acceptable data since absolute difference is <2X MQL. B – Metals result from laboratory was estimated (>MDL and <RL) NA – Not applicable J – Estimated data due to inability to meet QC criteria U – Analyte not detected U* – Analyte qualified as non-detect per Table B-2					

Appendix D

Soil Boring/Monitoring Well Completion Logs

LOG OF SOIL BORING: **ACW-26 (CP-1712-P003)**

CLIENT: **Kinder Morgan**
 SITE: **Lea County, New Mexico**
 DRILLING CONTRACTOR: **White Drilling Co.**
 SAMPLING METHOD: **Grab Sample Composite**
 RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**
 DRILLER: **B. Atkins**
 LOGGED BY: **A. Messer**
 CONDITION: **-**

JOB No.: **60619406** DATE: **December 4, 2019**
 LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**
 BOREHOLE DIA.: **8-inch** MONITOR WELL DIA.: **4-inch I.D.**
 COORDINATES (NM State Planes) NM83 - EAST FEET) : **N: 459,843.52 ft E: 894,497.22 ft**
 GROUND SURFACE ELEV.: **3307.06 ft** TOP OF CASING ELEV.: **3309.27 ft**
 INITIAL GROUNDWATER DEPTH (BTOC) : **-** TOTAL DEPTH OF BORING: **131 ft**
 DRILLING COMPLETED: **1445** WELL INSTALLED: **yes**
 PAGE: 1 OF 4 PAGE: 2 OF 4

WELL COMPLETION DIAGRAM		% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
DEPTH IN FEET 0 10 20 30	2.21' STICKUP CONCRETE PAD 8-INCH DIAMETER BOREHOLE (0 - 131 ft bgs) NEAT CEMENT (0 - 10 ft bgs) 4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 103 ft bgs) 3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 98 ft bgs)	-	-	-	-	-		No sample from 0' - 15 ft bgs (Air Knife)	
		-	70	30	0.0	SM		Reddish brown (5/4), silty SAND, very fine with caliche fragments, poorly graded	Strong
		-	90	10	0.0	SM		Light brown (6/4), silty SAND, very fine with caliche fragments, poorly graded	Strong
		-	100	trace	0.0	SM		Light brown (6/4), silty SAND, very fine with trace caliche fragments, poorly graded	Moderate

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE	▽	INITIAL WATER LEVEL DURING DRILLING
BTOC	BELOW TOP OF CASING	▼	STATIC WATER LEVEL
N/A	NOT APPLICABLE or NOT AVAILABLE		

LOG OF SOIL BORING: **CP-1712-P003 (ACW-26)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 4, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,843.22 ft** E: **894,497.22 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3307.06 ft**TOP OF CASING ELEV.: **3309.27 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC): **-**TOTAL DEPTH OF BORING: **131 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **1200**DRILLING COMPLETED: **1445**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 2 OF 4

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
40	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 103 ft bgs)	-	100	trace	0.0	SM		- same as above	Moderate
50	8-INCH DIAMETER BOREHOLE (0 - 131 ft bgs)	-	100	-	0.0	SM		Reddish yellow (6/6), silty SAND, very fine, poorly graded	Moderate
60		-	-	100	0.0	SM		Very pale brown (8/2), silty SAND, very fine with sandstone flakes, poorly graded	Weak
70	3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 98 ft bgs)	-	-	100	0.0	SM		Very pale brown (8/2), silty SAND, very fine with sandstone flakes, poorly graded	Weak

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT AVAILABLE

NM NOT MEASURED
 INITIAL WATER LEVEL DURING DRILLING
 STATIC WATER LEVEL

LOG OF SOIL BORING: **ACW-26 (CP-1712-P003)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 4, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,843.22 ft** E: **894,497.22 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3307.06 ft** TOP OF CASING ELEV.: **3309.27 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC): **-** TOTAL DEPTH OF BORING: **131 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **1200**DRILLING COMPLETED: **1445**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 3 OF 4

PAGE: 4 OF 4

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
80	8-INCH DIAMETER BOREHOLE (0 - 131 ft bgs)	-	5	95	0.0	SM		Very pale brown (8/2), silty SAND, very fine with very pale brown (8/2) sandstone fragments, poorly graded	Weak
	3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 98 ft bgs)	-	5	95	0.0	SM		Light gray (7/2), silty SAND, very fine with white (8/7) sandstone fragments, poorly graded	Weak
90	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 103 ft bgs)	-	5	95	0.0	SM		Light gray (7/2), silty SAND, very fine with white (8/7) sandstone fragments, poorly graded	Weak
100	PREMIUM 20 / 40 FILTER SAND (98 ft - 131 ft bgs)	-	80	20	0.0	SM		White (8/7), silty SAND, with white (8/7) sandstone fragments, poorly graded	Weak
	WELL SCREEN 0.010" SLOTTED PVC (103 ft - 128 ft bgs)								

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE	▽	INITIAL WATER LEVEL
BTOC	BELOW TOP OF CASING	≡	DURING DRILLING
N/A	NOT APPLICABLE or NOT AVAILABLE	▼	STATIC WATER LEVEL

LOG OF SOIL BORING: **ACW-26 (CP-1712-P003)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 4, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,843.22 ft** E: **894,497.22 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3307.06 ft** TOP OF CASING ELEV.: **3309.27 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC): **-** TOTAL DEPTH OF BORING: **131 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **1200**DRILLING COMPLETED: **1445**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 4 OF 4

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
110	WELL SCREEN 0.010" SLOTTED PVC (103 ft - 128 ft bgs) PREMIUM 20 / 40 FILTER SAND (103 ft - 131 ft bgs) 8-INCH DIAMETER BOREHOLE (0 - 131 ft bgs) END CAP	-	80	20	0.0	SM		- same as above	Weak
120		-	95	5	0.0	SM		White (8/7), silty SAND, with white (8/7) sandstone fragments, poorly graded	None
130		-	95	5	0.0	SM		White (8/7), silty SAND, with white (8/7) sandstone fragments, poorly graded	None
140	MATERIALS USED FOR WELL COMPLETION: 21 BAGS OF 3/8" HOLE-PLUG BENTONITE PELLETS 13 BAGS OF FILTER SAND (20/40 SILICA) 110 FEET OF 4 INCH PVC BLANK CASING 25.33 FEET OF 4 INCH PVC SLOTTED SCREEN (0.010" SLOTS)							Boring terminated at 131 feet below ground surface. Monitor well installed in borehole upon completion of sampling.	

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL
BTOC	BELOW TOP OF CASING		DURING DRILLING
N/A	NOT APPLICABLE or NOT AVAILABLE		STATIC WATER LEVEL

LOG OF SOIL BORING: ACW-27 (CP-1712-P004)

CLIENT: Kinder Morgan
 SITE: Lea County, New Mexico
 DRILLING CONTRACTOR: White Drilling Co.
 SAMPLING METHOD: Grab Sample Composite
 RIG TYPE: Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays
 DRILLER: B. Atkins
 LOGGED BY: A. Messer
 DRILLING STARTED: 1026
 CONDITION: -

JOB No.: 60619406
 DATE: December 3, 2019
 LOCATION: Section 32, T-23-S, R-37-E, NW/4-SW/4
 BOREHOLE DIA.: 8-inch
 MONITOR WELL DIA.: 4-inch I.D.
 COORDINATES (NM State Planes) NM83 - EAST FEET) : N: 459,844.54 ft E: 894,480.15 ft
 GROUND SURFACE ELEV.: 3306.92 ft TOP OF CASING ELEV.: 3309.22 ft
 INITIAL GROUNDWATER DEPTH (BTOC): 106.4' TOTAL DEPTH OF BORING: 180 ft
 DRILLING COMPLETED: 1630
 WELL INSTALLED: yes
 PAGE: 1 OF 6

WELL COMPLETION DIAGRAM		% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
DEPTH IN FEET 0 10 20 30		-	-	-	-			No sample from 0' - 15 ft bgs (Air Knife)	
		-	80	20	0.0	SM		Yellowish red (5/6), silty, very fine SAND, poorly graded	Moderate
		-	100	trace	0.0	SM		Yellowish red (5/6), silty, very fine SAND, poorly graded	Moderate
		-	100	-	0.0	SM		Reddish yellow (6/6), silty, very fine SAND, poorly graded	Weak

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL DURING DRILLING
BTOC	BELOW TOP OF CASING		STATIC WATER LEVEL
N/A	NOT APPLICABLE or NOT AVAILABLE		

LOG OF SOIL BORING: **ACW-27 (CP-1712-P004)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 3, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,844.54 ft** E: **894,480.15 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3306.92 ft** TOP OF CASING ELEV.: **3309.22 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC): **106.4'** TOTAL DEPTH OF BORING: **180 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **1026**DRILLING COMPLETED: **1630**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 2 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
40		-	100	-	0.0	SM		- same as above	Weak
		-	100	-	0.5	SM		Reddish yellow (6/6), silty, very fine SAND, poorly graded	Weak
50		-	10	90	0.0	SM		Pink (7/3), silty, very fine SAND, with sandstone fragments, poorly graded	Very Weak
60		-	95	5	0.5	SM		Light reddish brown (6/3), silty, very fine SAND with sandstone fragments, poorly graded	Very Weak
70						SM			

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT AVAILABLE

NM NOT MEASURED
 INITIAL WATER LEVEL DURING DRILLING
 STATIC WATER LEVEL

LOG OF SOIL BORING: ACW-27 (CP-1712-P004)

CONTINUED

CLIENT: Kinder Morgan
 SITE: Lea County, New Mexico
 DRILLING CONTRACTOR: White Drilling Co.
 SAMPLING METHOD: Grab Sample Composite
 RIG TYPE: Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays
 DRILLER: B. Atkins
 LOGGED BY: A. Messer
 CONDITION: -

JOB No.: 60619406
 DATE: December 3, 2019
 LOCATION: Section 32, T-23-S, R-37-E, NW/4-SW/4
 BOREHOLE DIA.: 8-inch
 MONITOR WELL DIA.: 4-inch I.D.
 COORDINATES (NM State Planes) NM83 - EAST FEET : N: 459,844.54 ft E: 894,480.15 ft
 GROUND SURFACE ELEV.: 3306.92 ft TOP OF CASING ELEV.: 3309.22 ft
 INITIAL GROUNDWATER DEPTH (BTOC): 106.4' TOTAL DEPTH OF BORING: 180 ft
 DRILLING COMPLETED: 1630
 WELL INSTALLED: yes
 PAGE: 3 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
80	3/8-INCH HOLE PLUG BENTONITE SEAL (0 - 150 ft bgs)	-	40	60	0.1	SM		Light reddish brown (6/3), silty, very fine SAND with sandstone fragments, poorly graded	Very Weak
90	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 154 ft bgs)	-	40	60	0.0	SM		Light reddish brown (6/3), silty, very fine SAND with sandstone fragments, poorly graded	None
100	8-INCH DIAMETER BOREHOLE (0 - 180 ft bgs)	-	30	70	0.2	SM		Light reddish brown (6/3), silty, very fine SAND with sandstone fragments, poorly graded	Weak
		-	100	trace	0.0	SM		Light reddish brown (6/3), silty, very fine SAND with sandstone fragments, poorly graded	Weak

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT AVAILABLE
 NM NOT MEASURED
 INITIAL WATER LEVEL DURING DRILLING
 STATIC WATER LEVEL

LOG OF SOIL BORING: ACW-27 (CP-1712-P004)

CONTINUED

CLIENT: Kinder Morgan
 SITE: Lea County, New Mexico
 DRILLING CONTRACTOR: White Drilling Co.
 SAMPLING METHOD: Grab Sample Composite
 RIG TYPE: Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays
 DRILLER: B. Atkins
 LOGGED BY: A. Messer
 CONDITION: -

JOB No.: 60619406
 DATE: December 3, 2019
 LOCATION: Section 32, T-23-S, R-37-E, NW/4-SW/4
 BOREHOLE DIA.: 8-inch
 MONITOR WELL DIA.: 4-inch I.D.
 COORDINATES (NM State Planes) NM83 - EAST FEET: N: 459,844.54 ft E: 894,480.15 ft
 GROUND SURFACE ELEV.: 3306.92 ft TOP OF CASING ELEV.: 3309.22 ft
 INITIAL GROUNDWATER DEPTH (BTOC): 106.4' TOTAL DEPTH OF BORING: 180 ft
 DRILLING COMPLETED: 1630
 WELL INSTALLED: yes
 PAGE: 4 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
110	8-INCH DIAMETER BOREHOLE (0 - 180 ft bgs) 3/8-INCH HOLE PLUG BENTONITE SEAL (0 - 150 ft bgs) 4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 154 ft bgs)	-	100	trace	0.0	SM		- same as above	Weak
120		-	70	30	0.0	SM		Light reddish brown (6/3), silty, very fine SAND with sandstone fragments, poorly graded	Weak
130		-	95	5	0.0	SM		Light reddish brown (6/4), silty, very fine SAND with sandstone fragments, poorly graded	None
140		-	100	trace	0.0	SM		Light reddish brown (6/4), silty, very fine SAND with sandstone fragments, poorly graded	None

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL DURING DRILLING
BTOC	BELOW TOP OF CASING		STATIC WATER LEVEL
N/A	NOT APPLICABLE or NOT AVAILABLE		

LOG OF SOIL BORING: **ACW-27 (CP-1712-P004)****CONTINUED**CLIENT: **Kinder Morgan**SITE: **Lea County, New Mexico**DRILLING CONTRACTOR: **White Drilling Co.**SAMPLING METHOD: **Grab Sample Composite**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**DRILLER: **B. Atkins**LOGGED BY: **A. Messer**DRILLING STARTED: **1026**DRILLING COMPLETED: **1630**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 5 OF 6

PAGE: 6 OF 6

JOB No.: **60619406**DATE: **December 3, 2019**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,844.54 ft** E: **894,480.15 ft**GROUND SURFACE ELEV.: **3306.92 ft** TOP OF CASING ELEV.: **3309.22 ft**INITIAL GROUNDWATER DEPTH (BTOC): **106.4'** TOTAL DEPTH OF BORING: **180 ft**

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
150	3/8-INCH HOLE PLUG BENTONITE SEAL (0 - 150 ft bgs)	-	95	-	0.0	SM		Light reddish brown (6/4), silty, very fine SAND with sandstone fragments, poorly graded	None
160	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 154 ft bgs)	-	100	-	0.0	SM		Light reddish brown (6/4), silty, very fine SAND with sandstone fragments, poorly graded	Weak
	PREMIUM 20 / 40 FILTER SAND (150 ft - 180 ft bgs)								
	WELL SCREEN 0.010" SLOTTED PVC (154 ft - 174 ft bgs)	20	80	-	0.0	SC		Light reddish brown (6/4), clayey, very fine SAND, poorly graded	Weak
170	8-INCH DIAMETER BOREHOLE (0 - 180 ft bgs)	70	30	-	0.0	CL		Yellowish red (5/6) CLAY	None
	END CAP								

SAMPLER KEY:

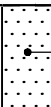
AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE	▽	INITIAL WATER LEVEL
BTOC	BELOW TOP OF CASING	≡	DURING DRILLING
N/A	NOT APPLICABLE or NOT AVAILABLE	▼	STATIC WATER LEVEL

LOG OF SOIL BORING: **CP-1712-P004 (ACW-27)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 3, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,844.54 ft** E: **894,480.15 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3306.92 ft** TOP OF CASING ELEV.: **3309.22 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC): **106.4'** TOTAL DEPTH OF BORING: **180 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **1026**DRILLING COMPLETED: **1630**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 6 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
180	 PREMIUM 20 / 40 FILTER SAND (150 ft - 180 ft bgs)	70	30	-	0.0	CL		- same as above	None
190								Boring terminated at 180 feet below ground surface. Monitor well installed in borehole upon completion of sampling.	
200									
210									

MATERIALS USED FOR WELL COMPLETION:21 BAGS OF $\frac{3}{8}$ " HOLE-PLUG BENTONITE PELLETS

13 BAGS OF FILTER SAND (20/40 SILICA)

160 FEET OF 4 INCH PVC BLANK CASING

20 FEET OF 4 INCH PVC SLOTTED SCREEN (0.010" SLOTS)

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT AVAILABLE

NM NOT MEASURED
 INITIAL WATER LEVEL DURING DRILLING
 STATIC WATER LEVEL

LOG OF SOIL BORING: ACW-28 (CP-1712-P005)

CLIENT: Kinder Morgan
 SITE: Lea County, New Mexico
 DRILLING CONTRACTOR: White Drilling Co.
 SAMPLING METHOD: Grab Sample Composite
 RIG TYPE: Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays
 DRILLER: B. Atkins
 LOGGED BY: A. Messer
 CONDITION: -

JOB No.: 60619406
 DATE: December 6, 2019
 LOCATION: Section 32, T-23-S, R-37-E, NW/4-SW/4
 BOREHOLE DIA.: 8-inch
 MONITOR WELL DIA.: 4-inch I.D.
 COORDINATES (NM State Planes) NM83 - EAST FEET): N: 459,982.24 ft E: 895,445.51 ft
 GROUND SURFACE ELEV.: 3304.13 ft TOP OF CASING ELEV.: 3306.49 ft
 INITIAL GROUNDWATER DEPTH (BTOC): - TOTAL DEPTH OF BORING: 130 ft
 DRILLING COMPLETED: 1210
 WELL INSTALLED: yes
 PAGE: 1 OF 4

WELL COMPLETION DIAGRAM		% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
DEPTH IN FEET 0 10 20 30	2.38" STICKUP CONCRETE PAD 8-INCH DIAMETER BOREHOLE (0 - 130 ft bgs) NEAT CEMENT (0 - 10 ft bgs) 4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 100 ft bgs) 3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 95 ft bgs)	-	-	-	-			No sample from 0' - 15 ft bgs (Air Knife)	
		90	10	-	0.2	ML		Reddish brown (6/8), sandy SILT, poorly graded	None
		-	90	10	0.0	ML		Pinkish white (8/2), sandy SILT, poorly graded	None
		55	45	-	0.5	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE	▽	INITIAL WATER LEVEL DURING DRILLING
BTOC	BELOW TOP OF CASING	▼	STATIC WATER LEVEL
N/A	NOT APPLICABLE or NOT AVAILABLE		

LOG OF SOIL BORING: **ACW-28 (CP-1712-P005)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 6, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,982.24 ft** E: **895,445.51 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3304.13 ft** TOP OF CASING ELEV.: **3306.49 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC) : **-** TOTAL DEPTH OF BORING: **130 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **0850**DRILLING COMPLETED: **1210**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 2 OF 4

PAGE: 3 OF 4

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
40	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 100 ft bgs) 8-INCH DIAMETER BOREHOLE (0 - 130 ft bgs) 3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 95 ft bgs)	55	45	-	0.5	ML		- same as above	None
		70	30	-	0.2	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
50		70	30	-	0.0	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
60		70	30	-	0.5	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
70									

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL DURING DRILLING
BTOC	BELOW TOP OF CASING		STATIC WATER LEVEL
N/A	NOT APPLICABLE or NOT AVAILABLE		

LOG OF SOIL BORING: ACW-28 (CP-1712-P005)

CONTINUED

CLIENT: Kinder Morgan
 SITE: Lea County, New Mexico
 DRILLING CONTRACTOR: White Drilling Co.
 SAMPLING METHOD: Grab Sample Composite
 Atlas Copco T3W, Mud Rotary, normal circulation, using
 RIG TYPE: water with natural clays
 DRILLER: B. Atkins
 LOGGED BY: A. Messer
 DRILLING STARTED: 0850
 CONDITION: -

JOB No.: 60619406
 DATE: December 6, 2019
 LOCATION: Section 32, T-23-S, R-37-E, NW/4-SW/4
 BOREHOLE DIA.: 8-inch
 MONITOR WELL DIA.: 4-inch I.D.
 COORDINATES (NM State
 Planes) NM83 - EAST FEET : N: 459,982.24 ft E: 895,445.51 ft
 GROUND SURFACE ELEV.: 3304.13 ft TOP OF CASING ELEV.: 3306.49 ft
 INITIAL GROUNDWATER DEPTH (BTOC): - TOTAL DEPTH OF BORING: 130 ft
 DRILLING COMPLETED: 1210
 WELL INSTALLED: yes
 PAGE: 3 OF 4

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
80	8-INCH DIAMETER BOREHOLE (0 - 130 ft bgs)	50	20	30	0.8	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
	3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 95 ft bgs)	50	20	30	1.0	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
90	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 100 ft bgs)	50	30	20	0.6	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
	PREMIUM 20 / 40 FILTER SAND (98 ft - 131 ft bgs)								
100	WELL SCREEN 0.010" SLOTTED PVC (100 ft - 125 ft bgs)	50	30	20	0.4	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT
 AVAILABLE

NM NOT MEASURED
 INITIAL WATER LEVEL
 DURING DRILLING
 STATIC WATER LEVEL

LOG OF SOIL BORING: **ACW-28 (CP-1712-P005)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 6, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NW/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,982.24 ft** E: **895,445.51 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3304.13 ft** TOP OF CASING ELEV.: **3306.49 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC) : **-** TOTAL DEPTH OF BORING: **130 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **0850**DRILLING COMPLETED: **1210**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 4 OF 4

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
110		50	30	20	0.4	ML		- same as above	None
	WELL SCREEN 0.010" SLOTTED PVC (100 ft - 125 ft bgs)	50	30	20	0.2	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
120	PREMIUM 20 / 40 FILTER SAND (103 ft - 131 ft bgs)								
	8-INCH DIAMETER BOREHOLE (0 - 130 ft bgs)								
	END CAP	50	30	20	0.0	ML		Reddish yellow (6/6), sandy SILT, poorly graded	None
130	HOLE COLLAPSED (NATIVE SOIL)								
	MATERIALS USED FOR WELL COMPLETION: - BAGS OF $\frac{3}{8}$ " HOLE-PLUG BENTONITE PELLETS 13 BAGS OF FILTER SAND (20/40 SILICA) 105.33 FEET OF 4 INCH PVC BLANK CASING 25 FEET OF 4 INCH PVC SLOTTED SCREEN (0.010" SLOTS)								Boring terminated at 130 feet below ground surface. Monitor well installed in borehole upon completion of sampling.
140									

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL
BTOC	BELOW TOP OF CASING		DURING DRILLING
N/A	NOT APPLICABLE or NOT AVAILABLE		STATIC WATER LEVEL

LOG OF SOIL BORING: ACW-29 (CP-1712-P006)

CLIENT: Kinder Morgan
 SITE: Lea County, New Mexico
 DRILLING CONTRACTOR: White Drilling Co.
 SAMPLING METHOD: Grab Sample Composite
 Atlas Copco T3W, Mud Rotary, normal circulation, using
 RIG TYPE: water with natural clays
 DRILLER: B. Atkins
 LOGGED BY: A. Messer
 DRILLING STARTED: 0900
 CONDITION: -

JOB No.: 60619406
 DATE: December 5, 2019
 LOCATION: Section 32, T-23-S, R-37-E, NE/4-SW/4
 BOREHOLE DIA.: 8-inch
 MONITOR WELL DIA.: 4-inch I.D.
 COORDINATES (NM State
 Planes) NM83 - EAST FEET) : N: 459,983.01 ft E: 895,430.35 ft
 GROUND SURFACE ELEV.: 3304.08 ft TOP OF CASING ELEV.: 3306.35 ft
 INITIAL GROUNDWATER DEPTH (BTOC) : -
 TOTAL DEPTH OF BORING: 190 ft
 DRILLING COMPLETED: 1600
 WELL INSTALLED: yes
 PAGE: 1 OF 6

WELL COMPLETION DIAGRAM		% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
DEPTH IN FEET 0 10 20 30	2.27' STICKUP CONCRETE PAD 8-INCH DIAMETER BOREHOLE (0 - 190 ft bgs) NEAT CEMENT (0 - 10 ft bgs) 4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 153 ft bgs) 3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 145 ft bgs)	-	-	-	-			No sample from 0' - 15 ft bgs (Air Knife)	
		-	70	30	0.0	SM		Reddish brown (5/4), silty SAND, very fine with very fine, brown sandstone fragments, poorly graded	Moderate
		-	30	70	0.0	SM		White (8/1), silty SAND, very fine with white sandstone fragments, poorly graded	None
		-	95	5	0.0	SM		White (8/2), silty SAND, very fine with white sandstone fragments, poorly graded	None

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT AVAILABLE
 NM NOT MEASURED
 INITIAL WATER LEVEL DURING DRILLING
 STATIC WATER LEVEL

LOG OF SOIL BORING: **ACW-29 (CP-1712-P006)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 5, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NE/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,983.01 ft** E: **895,430.35 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3304.08 ft** TOP OF CASING ELEV.: **3306.35 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC): **-** TOTAL DEPTH OF BORING: **190 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **0900**DRILLING COMPLETED: **1600**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 2 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
40		-	95	5	0.0	SM		- same as above	None
		-	95	5	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None
50		-	98	2	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None
60		-	95	5	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None
70						SM			

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL
BTOC	BELOW TOP OF CASING		DURING DRILLING
N/A	NOT APPLICABLE or NOT AVAILABLE		STATIC WATER LEVEL

LOG OF SOIL BORING: ACW-29 (CP-1712-P006)

CONTINUED

CLIENT: Kinder Morgan
 SITE: Lea County, New Mexico
 DRILLING CONTRACTOR: White Drilling Co.
 SAMPLING METHOD: Grab Sample Composite
 Atlas Copco T3W, Mud Rotary, normal circulation, using
 RIG TYPE: water with natural clays
 DRILLER: B. Atkins
 LOGGED BY: A. Messer
 DRILLING STARTED: 0900
 CONDITION: -

JOB No.: 60619406
 DATE: December 5, 2019
 LOCATION: Section 32, T-23-S, R-37-E, NE/4-SW/4
 BOREHOLE DIA.: 8-inch
 MONITOR WELL DIA.: 4-inch I.D.
 COORDINATES (NM State
 Planes) NM83 - EAST FEET : N: 459,983.01 ft E: 895,430.35 ft
 GROUND SURFACE ELEV.: 3304.08 ft TOP OF CASING ELEV.: 3306.35 ft
 INITIAL GROUNDWATER DEPTH (BTOC): - TOTAL DEPTH OF BORING: 190 ft
 DRILLING COMPLETED: 1600
 WELL INSTALLED: yes
 PAGE: 3 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
80	3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 145 ft bgs)	-	95	5	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None
90	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 153 ft bgs)	-	98	2	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None
100	8-INCH DIAMETER BOREHOLE (0 - 190 ft bgs)	-	98	2	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None
		-	95	5	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT AVAILABLE
 NM NOT MEASURED
 ▽ INITIAL WATER LEVEL DURING DRILLING
 ▼ STATIC WATER LEVEL

LOG OF SOIL BORING: **ACW-29 (CP-1712-P006)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 5, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NE/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,983.01 ft** E: **895,430.35 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3304.08 ft** TOP OF CASING ELEV.: **3306.35 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC) : **-** TOTAL DEPTH OF BORING: **190 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **0900**DRILLING COMPLETED: **1600**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 4 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
110	8-INCH DIAMETER BOREHOLE (0 - 190 ft bgs) 3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 145 ft bgs) 4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 153 ft bgs)	-	95	5	0.0	SM		- same as above	None
		-	95	5	0.0	SM		Pink (7/4), silty SAND, very fine with white sandstone fragments, poorly graded	None
120		trace	98	2	0.0	ML		Pink (7/4), clayey silty SAND, very fine with sandstone fragments, poorly graded	None
130		trace	95	5	0.0	ML		Pink (7/4), clayey silty SAND, very fine with sandstone fragments, poorly graded	None
140									

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL DURING DRILLING
BTOC	BELOW TOP OF CASING		STATIC WATER LEVEL
N/A	NOT APPLICABLE or NOT AVAILABLE		

LOG OF SOIL BORING: **ACW-29 (CP-1712-P006)****CONTINUED**CLIENT: **Kinder Morgan**JOB No.: **60619406**DATE: **December 5, 2019**SITE: **Lea County, New Mexico**LOCATION: **Section 32, T-23-S, R-37-E, NE/4-SW/4**DRILLING CONTRACTOR: **White Drilling Co.**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**SAMPLING METHOD: **Grab Sample Composite**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,983.01 ft** E: **895,430.35 ft**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**GROUND SURFACE ELEV.: **3304.08 ft** TOP OF CASING ELEV.: **3306.35 ft**DRILLER: **B. Atkins**INITIAL GROUNDWATER DEPTH (BTOC): **-** TOTAL DEPTH OF BORING: **190 ft**LOGGED BY: **A. Messer**DRILLING STARTED: **0900**DRILLING COMPLETED: **1600**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 5 OF 6

PAGE: 6 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
150	3/8-INCH HOLE PLUG BENTONITE SEAL (10 ft - 145 ft bgs)	trace	95	5	0.0	ML		Pink (7/4), clayey silty SAND, very fine with sandstone fragments, poorly graded	None
	4-INCH DIAMETER SCHEDULE 40 PVC, FJT FLUSH JOINT THREADED (0 - 153 ft bgs)	5	90	5	0.0	ML		Pink (7/4), clayey silty SAND, very fine with sandstone fragments, poorly graded	None
160	PREMIUM 20 / 40 FILTER SAND (145 ft - 190 ft bgs)								
	WELL SCREEN 0.010" SLOTTED PVC (153 ft - 173 ft bgs)	20	75	5	0.0	ML		Yellowish red (5/6), clayey silty SAND, very fine with sandstone fragments, poorly graded	None
170	8-INCH DIAMETER BOREHOLE (0 - 190 ft bgs)								
	END CAP	100	-	-	0.0	ML/CL		Yellowish red (5/6), SILT and CLAY, poorly graded	None

SAMPLER KEY:

AK AIR KNIFE (NO SAMPLING)
 BGS BELOW GROUND SURFACE
 BTOC BELOW TOP OF CASING
 N/A NOT APPLICABLE or NOT AVAILABLE

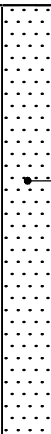
NM NOT MEASURED
 INITIAL WATER LEVEL DURING DRILLING
 STATIC WATER LEVEL

LOG OF SOIL BORING: **ACW-29 (CP-1712-P006)****CONTINUED**CLIENT: **Kinder Morgan**SITE: **Lea County, New Mexico**DRILLING CONTRACTOR: **White Drilling Co.**SAMPLING METHOD: **Grab Sample Composite**RIG TYPE: **Atlas Copco T3W, Mud Rotary, normal circulation, using water with natural clays**DRILLER: **B. Atkins**LOGGED BY: **A. Messer**DRILLING STARTED: **0900**JOB No.: **60619406**DATE: **December 5, 2019**LOCATION: **Section 32, T-23-S, R-37-E, NE/4-SW/4**BOREHOLE DIA.: **8-inch**MONITOR WELL DIA.: **4-inch I.D.**

COORDINATES (NM State

Planes) NM83 - EAST FEET) : N: **459,983.01 ft** E: **895,430.35 ft**GROUND SURFACE ELEV.: **3304.08 ft** TOP OF CASING ELEV.: **3306.35 ft**INITIAL GROUNDWATER DEPTH (BTOC) : **-**TOTAL DEPTH OF BORING: **190 ft**DRILLING COMPLETED: **1600**WELL INSTALLED: **yes**CONDITION: **-**

PAGE: 6 OF 6

DEPTH IN FEET	WELL COMPLETION DIAGRAM	% FINES	% SAND	% SANDSTONE FRAGMENTS	PID READING (ppm)	UNIFIED SOIL CLASSIFICATION	SOIL GRAPH	LITHOLOGIC DESCRIPTION	COMMENTS ACID RXN
180	 PREMIUM 20 / 40 FILTER SAND (145 ft - 190 ft bgs)	100	-	-	0.0	ML/CL		- same as above	None
190		-	-	-	0.0	ML/CL		Yellowish red (5/6), SILT and CLAY, poorly graded	None
190	Boring terminated at 190 feet below ground surface. Monitor well installed in borehole upon completion of sampling.								
200	MATERIALS USED FOR WELL COMPLETION: 25 BAGS OF 3/8" HOLE-PLUG BENTONITE PELLETS 14 BAGS OF FILTER SAND (20/40 SILICA) 160 FEET OF 4 INCH PVC BLANK CASING 20 FEET OF 4 INCH PVC SLOTTED SCREEN (0.010" SLOTS)								
210									

SAMPLER KEY:

AK	AIR KNIFE (NO SAMPLING)	NM	NOT MEASURED
BGS	BELOW GROUND SURFACE		INITIAL WATER LEVEL DURING DRILLING
BTOC	BELOW TOP OF CASING		STATIC WATER LEVEL
N/A	NOT APPLICABLE or NOT AVAILABLE		

Appendix E

NMOSE Well Reports



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) ACW-26		WELL TAG ID NO.		OSE FILE NO(S). CP 01712			
	WELL OWNER NAME(S) El Paso Natural Gas Co LLC				PHONE (OPTIONAL) 713-420-3475			
	WELL OWNER MAILING ADDRESS 1001 Louisiana Street, Room 757A				CITY Houston		STATE TX	ZIP 77002
	WELL LOCATION (FROM GPS)	DEGREES 32		MINUTES 15	SECONDS 32.63	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
		LONGITUDE 103		11	16.11			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Jal #4 Compressor Station								

2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1456		NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.				
	DRILLING STARTED 12/4/2019		DRILLING ENDED 12/10/2019		DEPTH OF COMPLETED WELL (FT) 128.0		BORE HOLE DEPTH (FT) 131.0		DEPTH WATER FIRST ENCOUNTERED (FT)	
	COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☒ SHALLOW (UNCONFINED)						STATIC WATER LEVEL IN COMPLETED WELL (FT) 107.5			
	DRILLING FLUID: ☐ AIR ☒ MUD ADDITIVES - SPECIFY:									
	DRILLING METHOD: ☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER - SPECIFY:									
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)		
	FROM	TO								
	-2.7	103.0	7 7/8	Sch. 40 PVC Riser	Threads	4.0	1/4"			
	103.0	128.0	7 7/8	Sch. 40 PVC Screen	Threads	4.0	1/4"	.010		

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
	0.0	10.0	7 7/8	Portland Bentonite Grout	3.49	Hand Mix
	10.0	98.0	7 7/8	Bentonite	30.71	Hand Mix
	98.0	131.0	7 7/8	20/40 Sand	15 Sacks	Hand Mix

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.		POD NO.		TRN NO.	
LOCATION				WELL TAG ID NO.	
				PAGE 1 OF 2	

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)		ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO					
4. HYDROGEOLOGIC LOG OF WELL	0.0	10.0	10.0	Brown sand/clayey sand	Y	✓ N	
	10.0	22.0	12.0	Brown sand/clayey sand w/caliche mixed	Y	✓ N	
	22.0	49.0	27.0	Brown sand/sandstone w/tan sandstone mixed	Y	✓ N	
	49.0	59.0	10.0	Brown and tan brown sandstone "very firm"	Y	✓ N	
	59.0	61.0	2.0	Brown sand/sandstone	Y	✓ N	
	61.0	62.0	1.0	Brown sandstone "very firm"	Y	✓ N	
	62.0	131.0	69.0	Brown sand/sandstone	✓ Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.					
	MISCELLANEOUS INFORMATION:						
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: William B. Atkins						
6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.						
						12/18/2019	
	SIGNATURE OF DRILLER			PRINT SIGNEE NAME		DATE	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.

POD NO.

TRN NO.

LOCATION

WELL TAG ID NO.

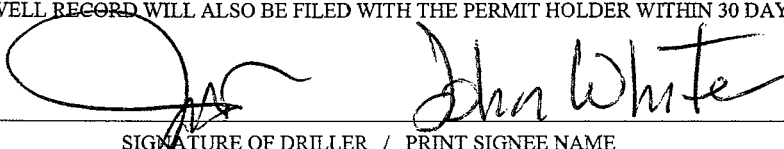
PAGE 2 OF 2



FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)		ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO					
	0.0	9.0	9.0	Brown sand/clayey sand	Y	✓ N	
	9.0	18.0	9.0	Caliche	Y	✓ N	
	18.0	26.0	8.0	Brown sand/sandstone	Y	✓ N	
	26.0	48.0	22.0	Brown sand/sandstone w/caliche mixed	Y	✓ N	
	48.0	53.0	5.0	Tan brown and brown sandstone	Y	✓ N	
	53.0	54.0	1.0	Tan brown sand	✓ Y	N	
	54.0	57.0	3.0	Brown sandstone	✓ Y	N	
	57.0	61.0	4.0	Brown sand/sandstone	✓ Y	N	
	61.0	69.0	8.0	Brown sandstone	✓ Y	N	
	69.0	163.0	94.0	Brown sand/sandstone	✓ Y	N	
	163.0	174.0	11.0	Brown sand w/small gravel mixed	Y	N	
	174.0	176.0	2.0	Brown sandy clay	Y	N	
	176.0	180.0	4.0	Brown sandy clay w/red clay	Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00		

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: William B. Atkins	

6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.	
	 SIGNATURE OF DRILLER / PRINT SIGNEE NAME	12/18/2019 DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2



FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)		ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO					
4. HYDROGEOLOGIC LOG OF WELL	0.0	16.0	16.0	Brown sand/clayey sand	Y	✓ N	
	16.0	35.0	19.0	Brown sand/sandstone w/caliche	Y	✓ N	
	35.0	55.0	20.0	Brown sand/sandstone	Y	✓ N	
	55.0	60.0	5.0	Brown and light brown sandstone	Y	✓ N	
	60.0	75.0	5.0	Brown sand/sandstone	Y	✓ N	
	75.0	116.0	41.0	Brown sand	Y	✓ N	
	116.0	130.0	14.0	Brown clayey sand/sandstone	✓ Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
					Y	N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.					
	MISCELLANEOUS INFORMATION:						
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: William B. Atkins						
6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.						
	 SIGNATURE OF DRILLER / PRINT SIGNEE NAME					12/18/2019 DATE	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) ACW-29		WELL TAG ID NO.		OSE FILE NO(S). CP 01712			
	WELL OWNER NAME(S) El Paso Natural Gas Co LLC				PHONE (OPTIONAL) 713-420-3475			
	WELL OWNER MAILING ADDRESS 1001 Louisiana Street, Room 757A				CITY Houston			
					STATE TX			
					ZIP 77002			
WELL LOCATION (FROM GPS)	DEGREES LATITUDE		MINUTES 32		SECONDS 15		33.76 N	
	LONGITUDE		103		11		16.29 W	
* ACCURACY REQUIRED: ONE TENTH OF A SECOND								
* DATUM REQUIRED: WGS 84								
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Jal #4 Compressor Station								

2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1456		NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.		
	DRILLING STARTED 12/5/2019		DRILLING ENDED 12/10/2019		DEPTH OF COMPLETED WELL (FT) 173.0		BORE HOLE DEPTH (FT) 190.0	
	COMPLETED WELL IS:		☐ ARTESIAN ☐ DRY HOLE ☒ SHALLOW (UNCONFINED)				DEPTH WATER FIRST ENCOUNTERED (FT)	
	DRILLING FLUID:		☐ AIR ☒ MUD ADDITIVES - SPECIFY:				STATIC WATER LEVEL IN COMPLETED WELL (FT) 106.35	
	DRILLING METHOD:		☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER - SPECIFY:					
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)		CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)		CASING CONNECTION TYPE (add coupling diameter)	
	FROM		TO				CASING INSIDE DIAM. (inches)	
							CASING WALL THICKNESS (inches)	
							SLOT SIZE (inches)	

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
	0.0	10.0	7 7/8	Portland Bentonite Grout	3.49	Hand Mix
	10.0	145.0	7 7/8	Bentonite	47.11	Hand Mix
	145.0	173.0	7 7/8	20/40 Sand	14 Sacks	Hand Mix
	173.0	190.0	7/78	Bentonite	4.5	Hand Mix

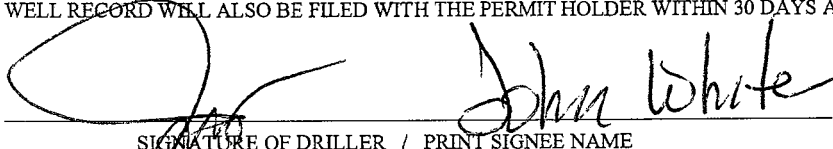
FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)		ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)	
	FROM	TO						
	0.0	16.0	16.0	Brown sand/clayey sand	Y	✓ N		
	16.0	35.0	19.0	Brown sand/sandstone w/caliche mixed	Y	✓ N		
	35.0	55.0	20.0	Brown sand/sandstone	Y	✓ N		
	55.0	60.0	5.0	Brown and light brown sandstone "very firm"	Y	✓ N		
	60.0	75.0	5.0	Brown sand/sandstone	Y	✓ N		
	75.0	116.0	41.0	Brown sand	✓ Y	N		
	116.0	125.0	9.0	Brown sand/sandstone	✓ Y	N		
	125.0	177.0	52.0	Brown clayey sand/sand	✓ Y	N		
	177.0	182.0	5.0	Brown sandy clay	✓ Y	N		
	182.0	190.0	8.0	Red brown clay	✓ Y	N		
					Y	N		
					Y	N		
					Y	N		
					Y	N		
					Y	N		
					Y	N		
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00		

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: William B. Atkins	

6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.	
	 SIGNATURE OF DRILLER / PRINT SIGNEE NAME	12/18/2019 DATE

Appendix F

IDW Disposal Documentation

TRK# 129

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number 00035	2. Page 1 of 1	3. Emergency Response Phone 713.422.0710	4. Manifest Tracking Number 021597591 JJK	
5. Generator's Name and Mailing Address EL PASO NATURAL GAS 1001 LOUISIANA ROOM 767A HOUSTON, TX 77002			Generator's Site Address (if different than mailing address)			
Generator's Phone:						
6. Transporter 1 Company Name LK Recodition			U.S. EPA ID Number			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address CHARACTER WASTE LANDFILL 2434 W. ALBUQUERQUE ODDESSA, TX 79769			U.S. EPA ID Number			
Facility's Phone:						
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers	11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes
			No. Type			
	1.	SOIL CUTTINGS - CLASS 1 SOLIDS APPROVAL # 341220 1529	1 roll-off	3.07	tn	
	2.					
	3.					
	4.					
14. Special Handling Instructions and Additional Information REPUBLIC SERVICES CUSTOMER # 333770 EXPIRES: 01/21/2021						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Officer's Printed/Typed Name Joseph Wiley		Signature Joseph Wiley		Month Day Year 2/1/20		
TRANSPORTER	16. International Shipments ☐ Import to U.S. ☐ Export from U.S.		Port of entry/exit: Date leaving U.S.:			
	Transporter signature (for exports only):					
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials					
	Transporter 1 Printed/Typed Name Jesus Franco	Signature Jesus Franco	Month Day Year 2/17/20			
TRANSPORTER	Transporter 2 Printed/Typed Name		Signature Month Day Year			
DESIGNATED FACILITY	18. Discrepancy					
	18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection					
	Manifest Reference Number:					
	18b. Alternate Facility (or Generator) U.S. EPA ID Number					
	Facility's Phone:					
18c. Signature of Alternate Facility (or Generator) Month Day Year						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. 2. 3. 4.						
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name CT Armes		Signature CT Armes		Month Day Year 2/17/20		

CHARTER WASTE LANDFILL 432-381-4722
12035 W MURPHY ST-ODESSA, TX

01

1338238

CT A.

333779

AECOM

19219 Katy Freeway Ste 100
Houston, TX 77094

Contract:3412201529 PO:Project # 60619406
Generator:EL PASO NATURAL GAS COMPANY, LLC (EPNG)

2/17/20 9:33 am 2/17/20 9:58 am

LK SPECIALTIES129

MF# 21597591 TRK# LK129

SCALE IN GROSS WEIGHT	39,160	NET TONS	3.07
SCALE OUT TARE WEIGHT	33,020	NET WEIGHT	6,140

INBOUND
INVOICE

0.00	YD	Tracking QTY
3.07	tn	SW-CONT SOIL

Origin:CLASS I SOLIDS 100%



The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPBL (06/13)

LK # 129

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number DAX136	2. Page 1 of 1	3. Emergency Response Phone 713-420-5170	4. Manifest Tracking Number 021597593 JJK	
5. Generator's Name and Mailing Address EL PASO NATURAL GAS 1001 LOUISIANA ROOM 767A HOUSTON, TX 77002			Generator's Site Address (if different than mailing address) EL PASO NATURAL GAS 1001 LOUISIANA ROOM 767A HOUSTON, TX 77002			
Generator's Phone: HOUSTON, TX 77002			U.S. EPA ID Number			
6. Transporter 1 Company Name			U.S. EPA ID Number			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address CHARLES WASTE LANDFILL 12035 W. MURPHY ODESSA, TX 79769			U.S. EPA ID Number			
Facility's Phone: ODESSA, TX 79769 (409) 381-4722						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1.	SOIL CUTTINGS - CLASS 1 SOLIDS APPROVAL # 5412 20 1520	1	Roll off	30 yd 2.37	tn	
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information REPUBLIC SERVICES CUSTOMER # 333770 EXPIRES: 01/21/2021						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offor's Printed/Typed Name Joseph Wiley		Signature Joseph Wiley		Month Day Year 2 10 20		
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name Jesus Fierro		Signature [Signature]		Month Day Year 2 21 20		
Transporter 2 Printed/Typed Name		Signature		Month Day Year		
18. Discrepancy						
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection						
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number: _____						
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.	2.	3.	4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name [Signature]		Signature [Signature]		Month Day Year 12 21 20		

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

IF YOU RECEIVED THIS MANIFEST, YOU HAVE RESPONSIBILITIES UNDER THE e-MANIFEST ACT. SEE INSTRUCTIONS ON REVERSE SIDE.

DESIGNATED FACILITY COPY

CHARTER WASTE LANDFILL 432-381-4722
12035 W MURPHY ST-ODESSA, TX

01

1339088

333779

AECOM

19219 Katy Freeway Ste 100

Houston, TX 77094

Contract:3412201529 PO:Project # 60619406

Generator:EL PASO NATURAL GAS COMPANY, LLC (EPNG)

IN - CT A. OUT - Leticia G.

2/21/20 7:51 am 2/21/20 8:04 am

3412201529

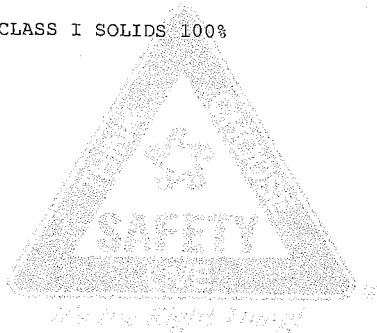
021597593JJK TRK LK 129

SCALE IN GROSS WEIGHT	38,140	NET TONS	2.37
SCALE OUT TARE WEIGHT	33,400	NET WEIGHT	4,740

INBOUND
INVOICE

30.00 YD Tracking QTY
2.37 tn SW-CONT SOIL

Origin:CLASS I SOLIDS 100%



The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

3-F042UPBL (06/13)