

# Transmittal Letter



**TO**  
 Mr. Robert Hamlet  
 District 2  
 NMOCD  
 811 South First Street  
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**FROM**  
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**COPIES TO**  
 Glenn Springs Holdings, Inc. – Suda Arakere  
 Arcadis-file

**DATE**  
 May 12, 2022

**PROJECT NUMBER**  
 30085438

**SUBJECT**  
 Submittal of 2021 Annual Groundwater Monitoring Report  
 Indian Basin Gas Plant AP-107

**We are sending you:**

Copies	Date	Drawing No.	Rev.	Description	Action*
1	5/12/22			2021 Annual Groundwater Monitoring Report Indian Basin Gas Plant AP-107, Eddy County, NM	
1	5/12/22			Electronic copy of 2018 Annual Groundwater Monitoring Report for Indian Basin Gas Plant AP-107	

**Action\***

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| <input type="checkbox"/> Other: _____                              |  |  |   |

**Comments:** Attached please find the referenced items. Please contact me via phone or email with any questions.

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## Glenn Springs Holdings, Inc.

A Subsidiary of Occidental Petroleum Corporation

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Suda Arakere  
VP Environmental Affairs  
Direct (713) 366-5872  
Email: [suda\\_arakere@oxy.com](mailto:suda_arakere@oxy.com)

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5 Greenway Plaza  
Suite 110  
Houston, TX 77046

May 12, 2022

Mr. Robert Hamlet  
District 2  
New Mexico Oil Conservation Division  
811 South First Street  
Artesia, NM 88210

**Re** Submittal of 2021 Annual Groundwater Monitoring Report  
Indian Basin Gas Plant AP-107  
Eddy County, New Mexico

Dear Mr. Hamlet:

Glenn Springs Holdings, Inc (a subsidiary of Occidental Petroleum Corporation), is submitting the attached Annual Groundwater Monitoring Report for the Indian Basin Gas Plant (AP-107) located in Eddy County, New Mexico. The New Mexico Oil Conservation Division (NMOCD) requires groundwater monitoring of 15 wells at the site and submittal of an annual report documenting the groundwater monitoring activities.

If you should have any questions, please contact me at (713) 366-5872 or [suda\\_arakere@oxy.com](mailto:suda_arakere@oxy.com).

Sincerely,

A handwritten signature in blue ink, appearing to be 'Suda Arakere', written in a cursive style.

Suda Arakere  
VP Environmental Affairs  
Glenn Springs Holdings, Inc.



Glenn Springs Holdings, Inc. A subsidiary of  
Occidental Petroleum Corporation

# 2021 ANNUAL GROUNDWATER MONITORING REPORT

Indian Basin Gas Plant  
Eddy County, New Mexico

March 2022

2021 Annual Groundwater Monitoring Report

**2021 ANNUAL  
GROUNDWATER  
MONITORING REPORT**

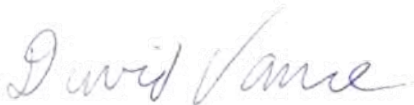
Indian Basin Gas Plant  
Eddy County, New Mexico



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Hugh B. Robotham, P. E., P.G.  
Project Manager / Principal Hydrologist

Prepared for:  
Suda Arakere  
VP Environmental Affairs  
Glenn Springs Holdings, Inc.  
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Our Ref.:  
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Date:  
March 15, 2022

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2021 Annual Groundwater Monitoring Report

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2021 Annual Groundwater Monitoring Report

## ACRONYMS AND ABBREVIATIONS

BTEX	Benzene, Toluene, Ethylbenzene, Xylene
IBGP	Indian Basin Gas Plant
IBRP	Indian Basin Remediation Project
NMOCD	New Mexico Oil Conservation Division
OXY	OXY USA WTP Limited Partnership
Site	Indian Basin Gas Plant
TDS	Total Dissolved Solids

## 2021 Annual Groundwater Monitoring Report

## EXECUTIVE SUMMARY

This report documents the results from the June 2021 annual groundwater monitoring event and the December 2021 semi-annual gauging event and provides historical groundwater monitoring documentation. The 2021 annual groundwater monitoring event was conducted on June 21 and 22, 2021 and included the gauging of depth to groundwater and non-aqueous phase liquid thickness in 15 monitoring wells (seven in the Shallow Zone and eight in the Lower Queen) and sampling of monitoring wells for BTEX, TDS and chloride. On December 6 and 7, 2021, semi-annual gauging of depth to groundwater and non-aqueous phase liquid thickness of 15 monitoring wells (seven in the Shallow Zone and eight in the Lower Queen) was conducted.

Liquid-level measurements obtained from each well in June 2021 and December 2021 and the surveyed well elevations were used to calculate groundwater elevations, with density corrections to the water level made where condensate was present. The resulting elevation data was used to generate groundwater piezometric contour maps for the Shallow Zone and Lower Queen aquifers. Review of these maps and the elevation data indicate Shallow Zone and Lower Queen groundwater flow was generally consistent with patterns observed in previous years. Flow in the Shallow Zone is to the southeast at an approximate gradient of 0.016 ft/ft, and flow in the Lower Queen is generally to the northwest at an approximate gradient of 0.001 ft/ft.

In June 2021, groundwater samples were collected from three Shallow Zone monitoring wells (MW-45, MW-49, and MW-106) and five Lower Queen monitoring wells (MW-66, MW-70, MW-88, MW-111 and MW-127). The purging and sampling techniques utilized low-flow procedures which were approved and implemented in 2003. Shallow monitoring wells MW-14, MW-46 and MW-77 were not sampled because they did not contain sufficient volume of water for sampling. MW-126 was not sampled because it contained condensate. Lower Queen monitoring wells MW-58, MW-81 and MW-113 were not sampled due the presence of condensate in these monitoring wells. The analytical results indicate that BTEX concentrations in the sampled Shallow Zone monitoring wells were below the NMOCD regulatory levels. BTEX concentrations in the five sampled Lower Queen wells were below NMOCD regulatory limits. Very low concentrations of benzene and toluene (below the NMOCD regulatory limits) were detected in MW-70. In general, TDS and chloride concentrations in the sampled Shallow Zone monitoring wells were within historical levels, and TDS and chloride concentrations in well MW-106 were below NMOCD the regulatory limits. The TDS in MW-45 (5,750 mg/L) and MW-49 (3,360 mg/L) exceeded the NMOCD regulatory limit of 1,000 mg/L. Chloride in MW-45 (497 mg/L), MW-49 (316 mg/L) exceeded the NMOCD regulatory limit of 250 mg/L. The TDS and chloride concentrations in the sampled Lower Queen wells were all below NMOCD regulatory limits.

Groundwater monitoring at the site will continue to be conducted according to the requirements outlined in the February 20, 2009 NMOCD letter. Based on the current program schedule, the next annual groundwater monitoring event will be conducted in June 2022 and the semi-annual groundwater gauging event will be conducted in November 2022. An annual report will be prepared at the conclusion of each Fall groundwater gauging event and will be submitted to the NMOCD.

## 2021 Annual Groundwater Monitoring Report

### INTRODUCTION

Arcadis prepared this Annual Groundwater Monitoring report on behalf of OXY USA WTP Limited Partnership (Oxy) for the Indian Basin Remediation Project (IBRP) at the Indian Basin Gas Plant located in Eddy County, New Mexico. This report presents the results of the June 2021 annual groundwater monitoring event, the semi-annual groundwater gauging event conducted in December 2021 and includes historical groundwater monitoring data. This report is prepared in accordance with the groundwater monitoring requirements outlined in correspondence by the New Mexico Energy, Minerals, and Natural Resources Department, New Mexico Oil Conservation Division (NMOCD) to Marathon Oil Company dated February 20, 2009 prior to OXY operating the facility.

### BACKGROUND

The IBGP (site) is located approximately 20 miles northwest of Carlsbad, New Mexico, as shown on Figure 1. The site is situated in Township 21 South, Eddy County, and occupies portions of Range 23 East (Sections 13, 23, 24, 25, and 26) and Range 24 East (Sections 19 and 30). Remediation efforts at the site were initiated in April 1991 and were designed to remove separate-phase petroleum hydrocarbons present in the subsurface, primarily condensate.

The geology underlying the site is comprised of two distinct zones, both with saturated and unsaturated strata. The geologic units are referred to as the Shallow Zone and the Lower Queen. Prior to March 2003, there were a total of 150 wells (78 Shallow Zone and 72 Lower Queen) and two shallow sumps present at the site related to the Indian Basin Remediation Project (IBRP). However, with NMOCD approval, 39 Shallow Zone wells were plugged and abandoned in March 2003, reducing the well total to 111 wells and two shallow sumps. The remaining wells and two sumps were used for a combination of groundwater monitoring, groundwater and condensate recovery, treated groundwater infiltration and condensate vapor extraction.

In May 2008, a report titled Evaluation of Natural Attenuation, Indian Basin Remediation Project, Eddy County, New Mexico was submitted to the NMOCD. The report described the natural attenuation processes occurring at the site and recommended closure of the IBRP. In addition, a letter with the reference title Proposed Indian Basin Remediation Project Well Plugging Program was submitted to the NMOCD in February 2009. The NMOCD responded to the May 2008 report and February 2009 plugging program letter in correspondence dated February 20, 2009. In the February 20, 2009 correspondence, the NMOCD stated that the report and well plugging request were substantially acceptable, and conditionally approved the discontinuance of active remediation at the site. However, the NMOCD required at least annual groundwater monitoring for BTEX, TDS and chloride for a total of 15 wells, and semi-annual gauging of depth to groundwater and non-aqueous phase liquid thickness. In addition, the NMOCD required that an annual groundwater monitoring report must be submitted. The NMOCD correspondence is included in Appendix E.

In March and April 2009, a total of 95 wells (including the two shallow sumps) were plugged and abandoned. Three water supply wells (SW-1, SW-2 and SW-3) originally included in the proposed plugging program were not plugged, because they are needed to supply water for site operations. A

## 2021 Annual Groundwater Monitoring Report

report documenting the well plugging activities was submitted to the NMOCD in June 2009. The NMOCD approved the plugging report through email correspondence dated June 17, 2009 (Appendix E).

Table 1 lists the 15 wells remaining in the groundwater monitoring program and monitoring requirements. Figure 2 depicts the site layout, including the locations of remaining Shallow Zone and Lower Queen wells. Additional details regarding local and regional geology and hydrogeology are presented in the report titled Comprehensive Site Characterization Report for the IBRP, submitted to the NMOCD in December 1998.

## GROUNDWATER AND CONDENSATE GAUGING

Groundwater gauging was conducted in June 2021 and December 2021. The gauging events consisted of collecting liquid-level measurements from the wells listed in Table 1 for both the Shallow Zone and Lower Queen. The results of the gauging events as well as precipitation recharge (rainfall) are discussed in the following sections. A summary of the June 2021 groundwater gauging results is provided in Table 2. The December 2021 groundwater gauging results are summarized in Table 3. Historical groundwater gauging data for the remaining monitoring wells at the site are presented in Appendix A.

### Shallow Zone Aquifer

Seven monitoring wells completed in the Shallow Zone were gauged during the June 2021 and December 2021 events. The liquid-level measurements and the top of casing elevations for the wells were then used to calculate the groundwater elevation at each well. Density corrections to the water level elevations were made for wells containing condensate.

From November 2020 to June 2021, groundwater levels (including density corrections for condensate if present) increased in Shallow Zone wells MW-46 (0.18 ft.) and MW-106 (0.65 ft.). The groundwater levels decreased from November 2020 to June 2021 for Shallow Zone wells MW-14 (0.14 ft.), MW-45 (0.15 ft.), MW-49 (0.66 ft.), MW-77 (9.92 ft.) and MW-126 (2.09 ft.). During the June 2021 event, measurable condensate thickness (0.10 ft.) was detected in Shallow Zone monitoring well MW-126. Historically, MW-126 has had condensate thicknesses ranging from 0 to 3.96 feet.

From June to December 2021, groundwater levels (including density corrections for condensate, if present) increased in Shallow Zone wells MW-14 (2.29 ft.), MW-45 (2.46 ft.), MW-46 (1.55 ft.), MW-49 (2.94 ft.), MW-77 (3.30 ft.) and MW-126 (21.3 ft.). The groundwater level in MW-106 decreased from June to December 2021 by 0.33 feet. During the December 2021 gauging event, measurable condensate was detected in one Shallow Zone monitoring well MW-126. The condensate thickness measured in MW-126 was 0.12 feet. Condensate was not detected in any other Shallow Zone well in June or December 2021.

Groundwater elevation contour maps were prepared based on the June 2021 and December 2021 groundwater elevation measurements (Figures 3 and 7). As shown on Figures 3 and 7, the observed groundwater flow direction in the Shallow Zone is to the southeast at an approximate gradient of 0.016 ft./ft. The flow direction and gradient are generally consistent with historical patterns.

## 2021 Annual Groundwater Monitoring Report

### Lower Queen Aquifer

The eight monitoring wells completed in the Lower Queen were gauged during the June 2021 and December 2021 gauging events. The liquid-level measurements and the top of casing elevations for the wells were then used to calculate the groundwater elevation at each well. Density corrections to the water level were made as required where condensate was present.

During the June 2021 gauging event, trace condensate was observed in Lower Queen monitoring well MW-113. MW-58 and MW-81 had condensate thicknesses of 0.22 feet and 0.04 feet, respectively. Historically, condensate thickness ranged from 0 to 5.26 feet in MW-58, 0 to 12.08 feet in MW-81 and 0 to 0.88 feet in MW-113. The water level elevation in MW-58 has experienced broad fluctuations over the last part of 2015 to the most recent gauging in 2021. As discussed in earlier annual reports, the cause of this fluctuation is possibly due to measurement interference created by biomass in the well which was reported historically for the gauging events conducted in 2001. During the December 2021 gauging event, trace condensate was observed in monitoring wells MW-58 and MW-113. MW-81 contained a condensate thickness of 0.09 feet.

Groundwater elevation contour maps were prepared based on the June 2021 and December 2021 groundwater elevation measurements (Figures 4 and 8). As shown on Figures 4 and 8, the observed groundwater flow direction in the Lower Queen is generally to the northwest at an approximate gradient of 0.001 ft./ft. The flow direction and gradient are generally consistent with historical patterns.

### Precipitation Recharge

Table 4 summarizes monthly rainfall for the area during 2021 along with historical precipitation since 1994. From 1994 through 2006, the precipitation records are from the Indian Basin Gas Plant. For the years 2007 through 2020, the precipitation records are from a weather station located in Carlsbad, New Mexico. The site has historically received the highest amounts of precipitation between the months of June and October. The average annual rainfall measured over the past five years (2017 to 2021) is approximately 11.40 inches which is slightly above the long-term average for the area of approximately 11.13 inches per year. During 2021, data from the Carlsbad station indicated that the highest amount of precipitation was received in June (3.96 inches) with a total of 15.56 inches (4.43 inches above the long-term average) reported for the year. The 4.40 inches of rainfall in 2020 was the lowest recorded in the last 12 years (5.84 inches were recorded in 2011).

## GROUNDWATER SAMPLING AND ANALYSIS

In a letter dated February 20, 2009 (Appendix E), the NMOCD required annual groundwater monitoring for BTEX, TDS and chloride for seven Shallow Zone and eight Lower Queen monitoring wells. Arcadis personnel conducted the 2021 annual groundwater sampling event at the site on June 21 and June 22, 2021. All samples were collected using low flow purging and sampling techniques.

The groundwater samples collected were placed in laboratory-provided sample containers appropriate for the specified laboratory analysis. Each sample container was properly labelled with a unique sample identification number and placed on ice in a laboratory-provided sample cooler and shipped by overnight delivery to Eurofins Test America laboratory in Houston for analysis. A properly completed chain-of-

## 2021 Annual Groundwater Monitoring Report

custody (COC) form accompanied each cooler containing the samples. The COC showed the sample number, the time of collection, the sample preservative and the analyses to be performed.

Table 5 summarizes the BTEX, chloride and TDS analytical results for the June 2021 event. Summaries of historical BTEX, TDS and chloride analytical data are presented in Appendix B. The complete laboratory analytical report for the annual groundwater sampling event in 2021 is presented in Appendix C. GHD performed the data validation of the laboratory data for the June 2021 sampling event. A copy of the data validation report is contained in Appendix D.

The groundwater monitoring analytical results for both the Shallow Zone and Lower Queen are discussed in the following sections.

### Shallow Zone Aquifer

#### BTEX Analysis

Groundwater samples were collected from three Shallow Zone monitoring wells (MW-45, MW-49 and MW-106) for the June 2021 sampling event. MW-14, MW-46 and MW-77 were not sampled because they did not contain sufficient volume of water for sampling. MW-126 was not sampled because it contained condensate. The results of the BTEX laboratory analysis of the Shallow Zone groundwater samples are summarized as follows:

- Benzene was not detected in the three monitoring wells sampled (MW-45, MW-49 and MW-106); and
- Benzene was not detected in the June 2021 sample for MW-49 but was detected in this well in the previous sampling event in June 2020 at a concentration of 15.4 µg/L which was above the NMOCD regulatory limit of 10 µg/L.

Figure 5 illustrates the distribution of dissolved BTEX compounds in the Shallow Zone aquifer in June 2021. As indicated by the historical data in Appendix B, BTEX concentrations in this water-bearing zone have generally remained stable or declined over time.

#### Wet Chemistry Analysis

In addition to BTEX analysis, groundwater samples collected in June 2021 from the Shallow Zone monitoring wells were analyzed for TDS and chloride. The results for TDS and chloride are summarized as follows:

- TDS concentration in MW-106 (362 mg/L) was below the NMOCD standard and within the historical concentration range;
- TDS concentrations were detected above the NMOCD standard in the remaining two Shallow Zone monitoring wells sampled (MW-45 and MW-49). The TDS concentration in MW-45 (5,750 mg/L) was within the historical range (2,540 to 5,990 mg/L) for this well. The TDS concentration in MW-49 (3,360 mg/L) was within the historical range (from 2,600 to 5,220 mg/L) recorded for this well;
- As mentioned earlier, MW-14 and MW-46 were not sampled during the June 2021 sampling event. For the previous sampling event performed in June 2020, the TDS concentration in MW-14 (1,360 mg/L) and MW-46 (1,630 mg/L) had declined significantly from the levels detected in 2019 and were

## 2021 Annual Groundwater Monitoring Report

back within the historical ranges for these wells of 1,000 mg/L to 1,610 mg/L for MW-14 and 490 mg/L to 2,300 mg/L for MW-46;

- Chloride concentration in MW-106 (3.14 mg/L) was below the NMOCD standard and within the historical range;
- Chloride concentration was detected above the NMOCD standard in MW-45 (497 mg/L) which represents a significant increase in concentration from 150 mg/L in 2020. The chloride concentrations in MW-45 were consistently below the NMOCD standard from 2011 to 2020 but were consistently above it (ranging up 507 mg/L, except for 2009) based on the available data for 1991 through 2010; and
- The chloride concentration in MW-49 was 316 mg/L which represents a decrease in concentration from 491 mg/L in 2020.

A summary of the TDS and chloride analytical results is provided in Table 5. A Copy of the analytical laboratory report is included in Appendix C. Figure 5 depicts TDS and chloride concentrations in the wells sampled in June 2021.

## Lower Queen Aquifer

### BTEX Analysis

Groundwater samples were collected from five Lower Queen monitoring wells (MW-66, MW-70, MW-88, MW-111 and MW-127) in June 2021. Samples were not collected from MW-58, MW-81, and MW-113 because they contained condensate. No benzene, toluene, ethylbenzene or xylenes concentrations were detected in four of the five sampled Lower Queen wells (MW-66, MW-88, MW-111 and MW-127). However, benzene and toluene were detected in MW-70 in low concentrations of 7.1 µg/L and 5.71 µg/L, respectively, below the NMOCD regulatory limit for benzene and toluene of 10 µg/L and 750 µg/L, respectively. Figure 6 illustrates the distribution of dissolved BTEX compounds in the Lower Queen in June 2021.

### Wet Chemistry Analysis

In addition to BTEX analysis, groundwater samples were collected in June 2021 from the Lower Queen monitoring wells MW-66, MW-70, MW-88, MW-111 and MW-127 and analyzed for TDS and chlorides. The results of the TDS and chloride laboratory analyses for the Lower Queen monitoring wells are summarized as follows:

- TDS concentrations were below the NMOCD standard of 1,000 mg/L in all samples collected from the Lower Queen monitoring wells. The TDS of 1,750 mg/L reported for MW-70 in June 2019 was discussed in the 2019 annual report as an anomaly and a significantly departure from the historical range for this well of approximately 500 mg/L or less as well as a departure from the historical concentrations in the Lower Queen Aquifer. The TDS concentration in MW-70 was 431 mg/L in June 2021 and will continue to be closely scrutinized in future sampling events to evaluate trends. For the June 2021 sampling event, the TDS concentrations for the Lower Queen monitoring wells ranged from 431 mg/L in MW-70 to 920 mg/L in MW-66; and

## 2021 Annual Groundwater Monitoring Report

- Chloride concentrations were below the NMOCD standard of 250 mg/L in all five samples collected from the Lower Queen monitoring wells. The chloride concentrations ranged from 10.7 mg/L in MW-70 to 46.9 mg/L in MW-127.

A summary of the laboratory analysis data for TDS and chloride is provided in Table 5. A copy of the analytical laboratory report is included in Appendix C. Figure 6 depicts TDS and chlorides in the Lower Queen monitoring wells sampled in June 2021.

## SUMMARY

### Groundwater Monitoring

Results of the annual groundwater monitoring event conducted in June 2021 and the groundwater gauging event conducted in December 2021 indicated similar groundwater conditions present as in previous years. Wells containing measurable condensate in June and December 2021 were consistent with historical results. Analytical results for BTEX, chloride and TDS were similar to the historical data for the sampled wells. MW-70 (Lower Queen Aquifer), which contained a TDS concentration of 1,750 mg/L in 2019 (well above the historical concentrations for this well and the Lower Queen Aquifer), had TDS of 394 mg/L in 2020 and 431 mg/L in 2021 which are consistent with the longer-term historical data. The benzene and toluene concentrations in MW-70 were above recent historical concentrations.

### Groundwater Monitoring Plan

Groundwater monitoring will continue at the Indian Basin Gas Plant in accordance with the requirements outlined in the February 20, 2009 NMOCD letter (Appendix E) including annual groundwater monitoring for BTEX, TDS and chloride for the seven Shallow Zone and eight Lower Queen monitoring wells at the site, and semi-annual gauging of depth to groundwater and non-aqueous phase liquid thickness. In addition, an annual groundwater monitoring report will be submitted to the NMOCD. Based on the current program schedule, the annual groundwater monitoring event for 2021 is planned to be conducted in June and the semi-annual groundwater gauging event conducted in November. The annual report will be prepared and submitted to the NMOCD during the first half of 2023.

# TABLES



Table 1. Groundwater Monitoring Plan  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant  
 Eddy County, New Mexico.

**Shallow Zone Sampling Schedule**

Well ID	Spring		Fall
	Annual	Analytical Parameters Annual	Semi-Annual
MW-14	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-45	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-46	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-49	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-77	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-106	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-126	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging

**Lower Queen Sampling Schedule**

Well ID	Spring		Fall
	Annual	Analytical Parameters Annual	Semi-Annual
MW-58	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-66	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-70	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-81	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-88	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-111	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-113	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-127	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging

Notes:

TDS Total Dissolved Solids  
 BTEX Benzene, Toluene, Ethylbenzene, and Total Xylenes

Table 2. Summary of Groundwater Gauging Results, June 2021  
 Semi-Annual Groundwater Gauging Event  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well Number	Well Diameter (in)	Northing	Easting	Total Depth From TOC (ft)	Top of Casing (ft amsl)	Top of Casing Stickup (ft agl)	DTW (feet)	DTP (feet)	PT (feet)	PT x 0.73 (feet)	ADJ DTW (feet)	WL Elev (ft amsl)	Comments
		NAD 27 Con hddd,mm',ss.s"											
<b>Shallow Zone</b>													
MW-14	4	32 27 44.3	104 34 00.9	24.14	3803.61	2.08	23.85	---	---	---	---	3779.76	
MW-45	2	32 28 01.1	104 34 08.7	NR	3808.68	1.60	21.68	---	---	---	---	3787.00	
MW-46	4	32 27 56.7	104 34 05.8	19.70	3805.54	1.90	19.35	---	---	---	---	3786.19	
MW-49	2	32 27 57.6	104 33 59.9	NR	3805.61	1.90	23.02	---	---	---	---	3782.59	
MW-77	7.875	32 27 27.3	104 33 25.0	NR	3775.48	2.38	80.54	---	---	---	---	3694.94	
MW-106	4	32 26 57.0	104 32 26.4	NR	3721.97	2.61	88.46	---	---	---	---	3633.51	
MW-126	4	32 27 48.2	104 33 49.9	NR	3796.28	3.33	70.36	70.26	0.10	0.07	70.29	3725.99	Condensate present
<b>Lower Queen</b>													
MW-58	7.875	32 28 04.5	104 33 28.5	NR	3824.07	3.48	200.99	200.77	0.22	0.16	200.83	3623.24	Condensate present
MW-66	4	32 28 19.1	104 33 28.5	NR	3828.98	2.60	206.87	---	---	---	---	3622.11	
MW-70	4	32 27 18.8	104 34 05.5	NR	3822.57	2.71	199.73	---	---	---	---	3622.84	
MW-81	7.875	32 28 04.3	104 33 19.5	NR	3817.03	3.98	190.85	190.81	0.04	0.03	190.82	3626.21	Condensate present
MW-88	4	32 28 25.3	104 32 55.6	NR	3789.70	2.71	167.28	---	---	---	---	3622.42	
MW-111	4	32 28 15.9	104 34 06.1	NR	3824.44	1.85	202.92	---	---	---	---	3621.52	
MW-113	7.875	32 27 16.3	104 33 32.1	NR	3772.67	1.82	149.36	149.35	0.01	0.01	149.35	3623.32	Trace condensate
MW-127	8.25	32 28 00.8	104 33 58.8	NR	3825.17	2.63	203.25	---	---	---	---	3621.92	

Foot Notes: TOC Top of Casing  
 DTW Depth to Water  
 DTP Depth to Product  
 PT Product Thickness  
 ADJ DTW Adjusted Depth to Water  
 WL Water Level

Table 3. Summary of Groundwater Gauging Results, December 2021  
 Semi-Annual Groundwater Gauging Event  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well Number	Well Diameter (in)	Northing	Easting	Total Depth From TOC (ft)	Top of Casing (ft amsl)	Top of Casing Stickup (ft agl)	DTW (feet)	DTP (feet)	PT (feet)	PT x 0.73 (feet)	ADJ DTW (feet)	WL Elev (ft amsl)	Comments
		NAD 27 Con hddd,mm',ss.s"											
<b>Shallow Zone</b>													
MW-14	4	32 27 44.3	104 34 00.9	24.16	3803.61	2.08	21.56	---	---	---	---	3782.05	
MW-45	2	32 28 01.1	104 34 08.7	26.43	3808.68	1.60	19.22	---	---	---	---	3789.46	
MW-46	4	32 27 56.7	104 34 05.8	19.76	3805.54	1.90	17.8	---	---	---	---	3787.74	
MW-49	2	32 27 57.6	104 33 59.9	26.56	3805.61	1.90	20.08	---	---	---	---	3785.53	
MW-77	7.875	32 27 27.3	104 33 25.0	82.31	3775.48	2.38	77.20	---	---	---	---	3698.28	
MW-106	4	32 26 57.0	104 32 26.4	96.01	3721.97	2.61	88.79	---	---	---	---	3633.18	
MW-126	4	32 27 48.2	104 33 49.9	N/R	3796.28	3.33	49.08	48.96	0.12	0.09	48.99	3747.29	Condensate present
<b>Lower Queen</b>													
MW-58	7.875	32 28 04.5	104 33 28.5	N/R	3824.07	3.48	195.97	195.96	0.01	0.01	195.96	3628.11	Trace condensate
MW-66	4	32 28 19.1	104 33 28.5	N/R	3828.98	2.60	206.41	---	---	---	---	3622.57	
MW-70	4	32 27 18.8	104 34 05.5	N/R	3822.57	2.71	195.12	---	---	---	---	3627.45	
MW-81	7.875	32 28 04.3	104 33 19.5	N/R	3817.03	3.98	189.56	189.47	0.09	0.07	189.49	3627.54	Condensate present
MW-88	4	32 28 25.3	104 32 55.6	N/R	3789.70	2.71	163.56	---	---	---	---	3626.14	
MW-111	4	32 28 15.9	104 34 06.1	N/R	3824.44	1.85	198.32	---	---	---	---	3626.12	
MW-113	7.875	32 27 16.3	104 33 32.1	N/R	3772.67	1.82	145.50	145.49	0.01	0.01	145.49	3627.18	Trace condensate
MW-127	8.25	32 28 00.8	104 33 58.8	N/R	3825.17	2.63	198.71	---	---	---	---	3626.46	

Foot Notes: TOC Top of Casing  
 DTW Depth to Water  
 DTP Depth to Product  
 PT Product Thickness  
 ADJ DTW Adjusted Depth to Water  
 WL Water Level

Table 4. Summary of Historical Rainfall with Monthly Rainfall During 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant  
 Eddy County, New Mexico.

Historical Rainfall	
Year	Rainfall (inches)
1994	9.31
1995	7.84
1996	16.60
1997	10.65
1998	3.95
1999	4.70
2000	9.75
2001	6.02
2002	12.70
2003	7.58
2004	26.96
2005	11.16
2006	17.49
2007	19.02*
2008	9.39*
2009	11.96*
2010	17.32*
2011	5.84*
2012	11.14*
2013	11.38*
2014	23.53*
2015	16.49*
2016	11.96*
2017	12.38*
2018	11.16*
2019	12.76*
2020	4.6*
2021	15.56*
Monthly Rainfall During 2021	
Month	Rainfall (inches)
January	0.16
February	0.19
March	0.16
April	1.92
May	1.94
June	3.96
July	2.20
August	3.55
September	0.65
October	0.57
November	0.15
December	0.00
2021 Annual Total	15.45

Source: Rain gauge at Indian Basin Gas Plant  
 \*Changed in 2007 to a station located in Carlsbad, NM

Table 5. Summary of Analytical Results, June 2021  
 Annual Groundwater Sampling Event  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well ID	Sample Date	Analytical Parameters					
		Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TDS (mg/L)	Chloride (mg/L)
<b>OCD Regulatory Limits</b>		10	750	750	620	1,000	250
<b>Shallow Zone Wells</b>							
MW-14		Not Sampled - not enough water to collect sample					
MW-45	6/22/2021	<2.0	<2.0	<2.0	<4.0	5,750	497
MW-46		Not Sampled - not enough water to collect sample					
MW-49	6/22/2021	<20.0	<20.0	<20.0	<40.0	3,360	316
MW-77		Not Sampled - not enough water to collect sample					
MW-106	6/22/2021	<2.0	<2.0	<2.0	<4.0	362	3.14
MW-126		Not Sampled - well contained condensate					
<b>Lower Queen Wells</b>							
MW-58		Not Sampled - well contained condensate					
MW-66	6/22/2021	<2.0	<2.0	<2.0	<4.0	920	11.4
MW-70	6/22/2021	7.1	5.71	<2.0	<4.0	431	10.7
MW-81		Not Sampled - well contained condensate					
MW-88	6/22/2021	<40.0	<40.0	<40.0	<80	884	35
DUP-1 (Parent MW-88)	6/22/2021	<20.0	<20.0	<20.0	<40.0	855	32.9
MW-111	6/22/2021	<40.0	<40.0	<40.0	<80	616	33.1
MW-113		Not Sampled - well contained condensate					
MW-127	6/22/2021	<20.0	<20.0	<20.0	<40.0	656	46.9

Notes:

ug/L	Micrograms per liter
mg/L	Milligrams per liter
<5	Compound below the laboratory detection limit
6	Indicates result above the detection limit and below the NMOCD standard
16	Indicates result at/above the NMOCD standard

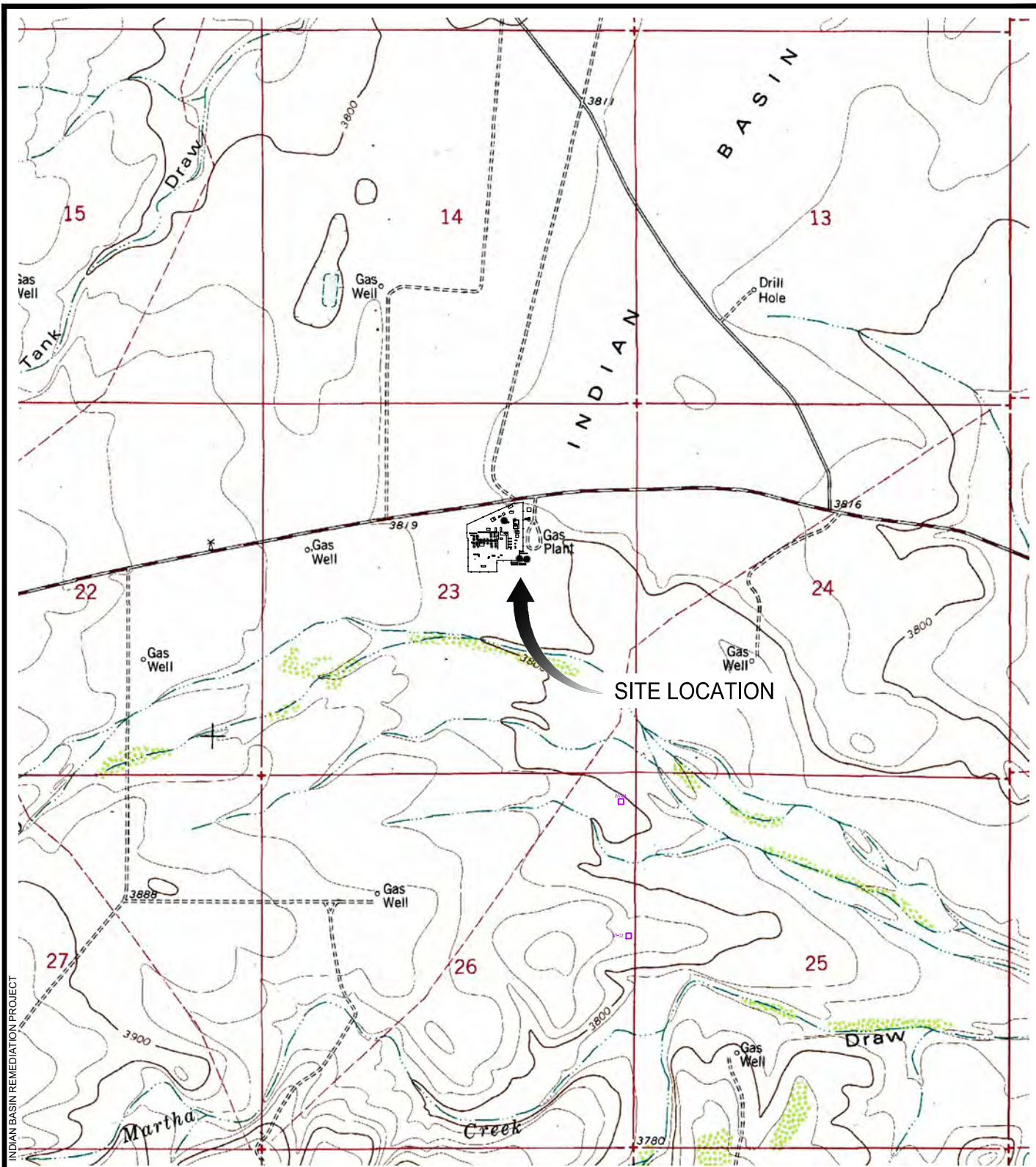
BTEX Regulatory Standards The referenced regulatory standards were in effect statewide until 2018. In 2018, the standards were changed (lowered in some cases) but several facilities (including the Indian Basin Gas Plant) were grandfathered in under the old rules.

# FIGURES



CITY: Milwaukee, WI GROUP: ENV DB: C. McKeough, LD: PIC: M. Sanford PM: H. McConnell TML: A. Sides TR: LYR: ON\* OFF=REF UN: 31-009-00471  
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PROJECT NAME: INDIAN BASIN REMEDIATION PROJECT  
XREFS: IMAGES: 032104d5.jpg



SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MINUTE TOPOGRAPHIC SERIES, MARTHA CREEK, NEW MEXICO QUADRANGLE, PUBLISHED 1978.



SCALE IN FEET



NEW MEXICO

AREA LOCATION



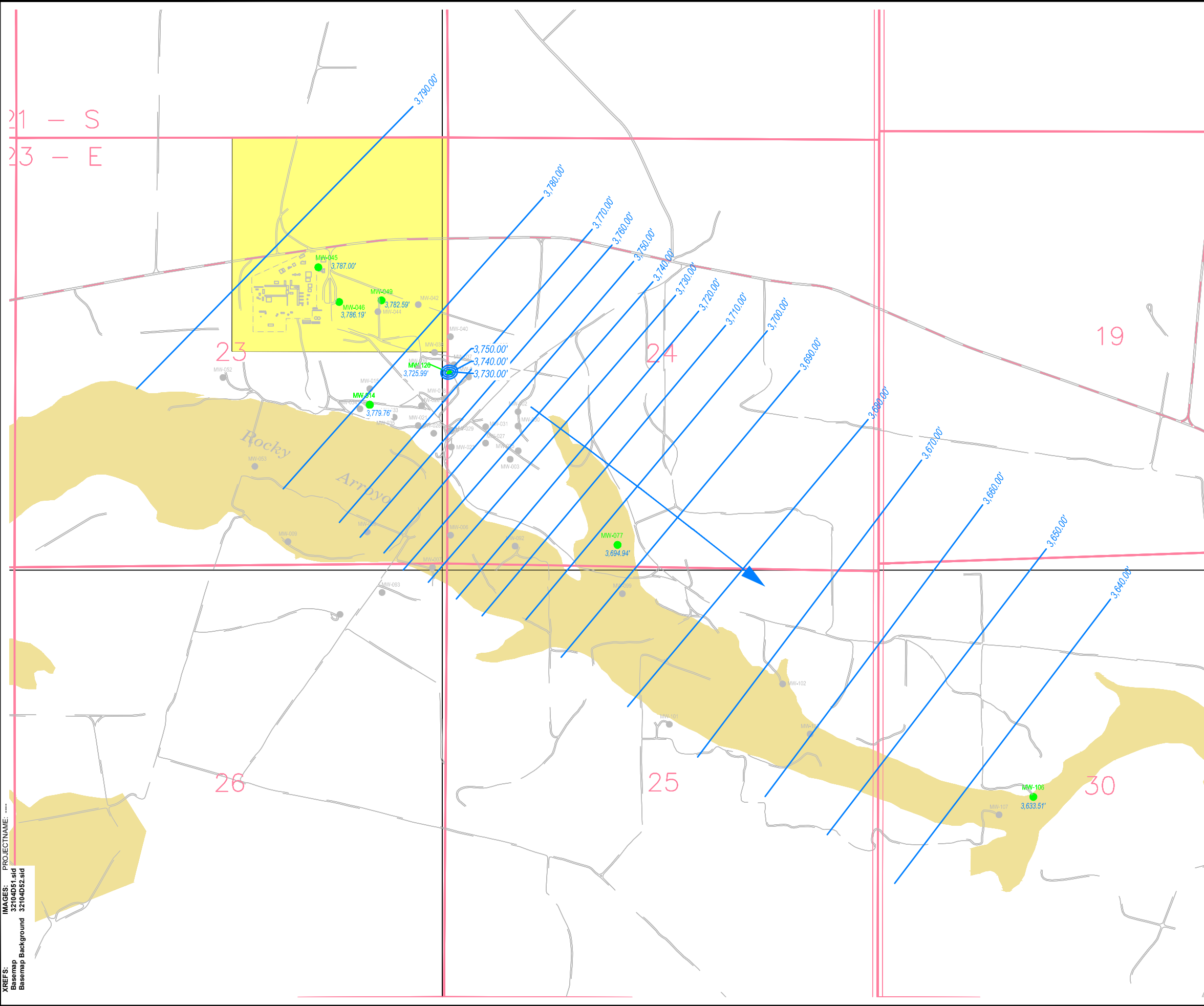
OXY USA WTP LIMITED PARTNERSHIP  
EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT**  
**2021 ANNUAL REPORT**

**SITE LOCATION MAP**

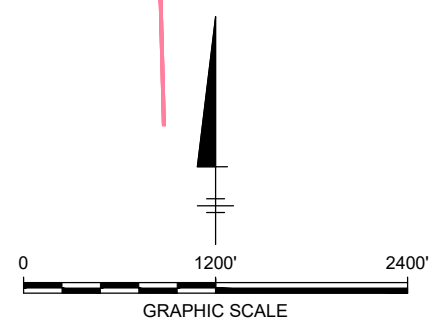
	Design & Consultancy for natural and built assets	FIGURE
		<b>1</b>



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IMAGES: 32104051.sld  
Basemap Background 32104052.sld



T - 21 - S  
R - 24 - E



- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
  - 3,694.94' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - DRY INDICATES WELL WAS DRY AT TIME OF GAUGING
  - 3,780.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 10 FEET
  - GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7 1/2 MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

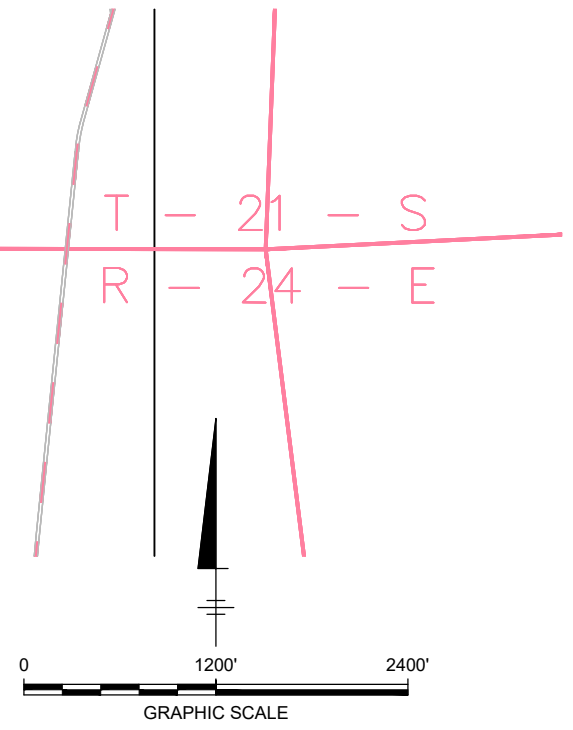
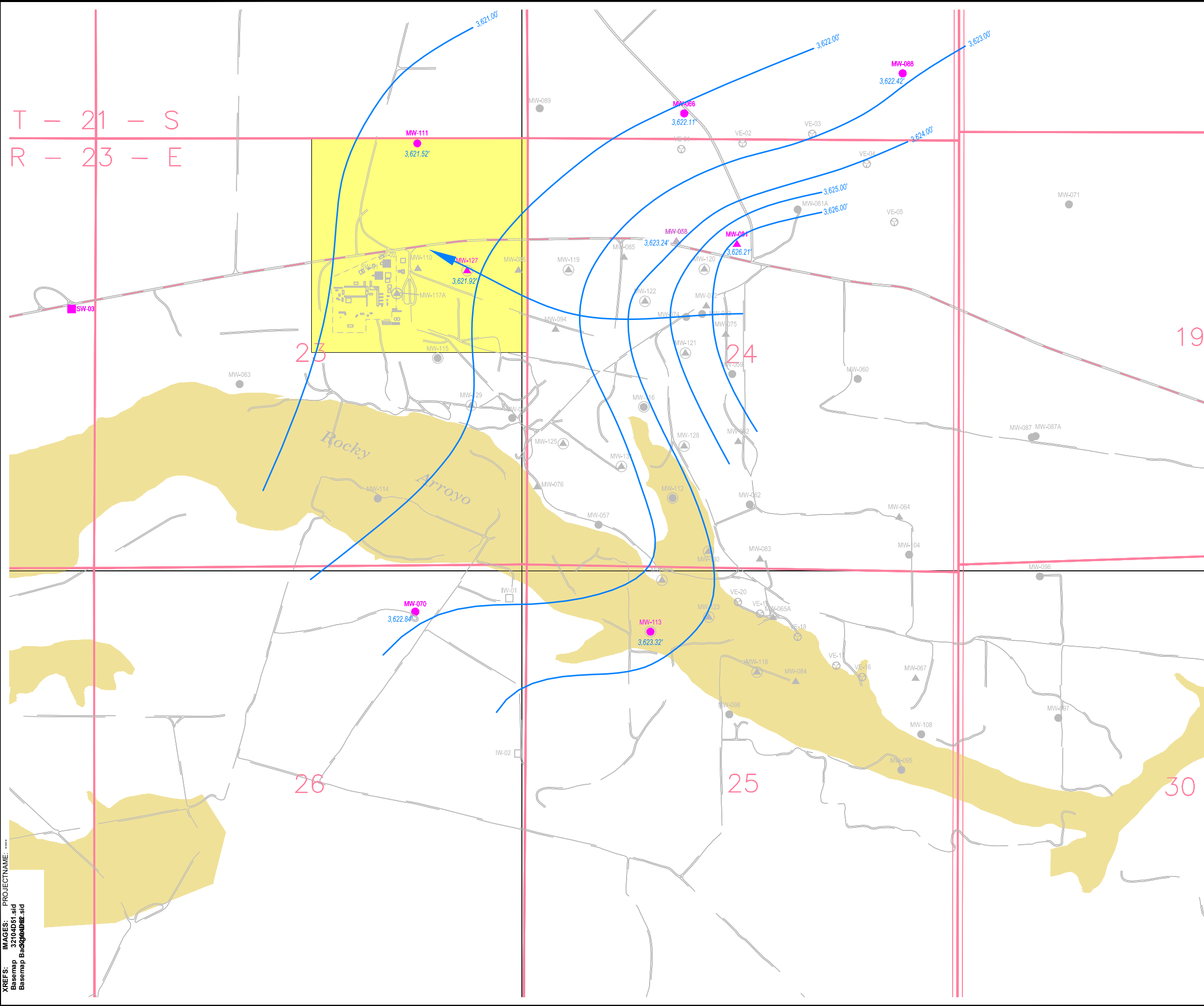
OXY USA WTP LIMITED PARTNERSHIP  
EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT  
2021 ANNUAL REPORT**

**SHALLOW ZONE GROUNDWATER  
ELEVATION CONTOURS  
JUNE 2021**

**ARCADIS** Design & Consultancy  
for natural and built assets

FIGURE  
**3**

CITY: Milwaukee WI GROUP: ENV DB: C. McKeough LD: PIC: M. Sanford PM: H. McConnell TM: A. Sides TR: LYRON\*OFF=REF\* UN: 31-009-00471  
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Basemap Background.sld

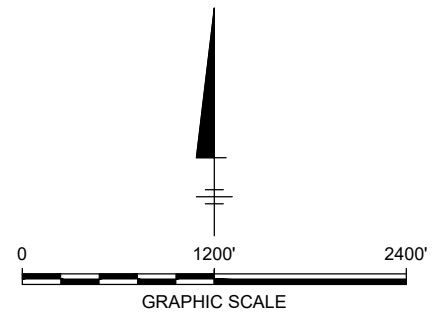
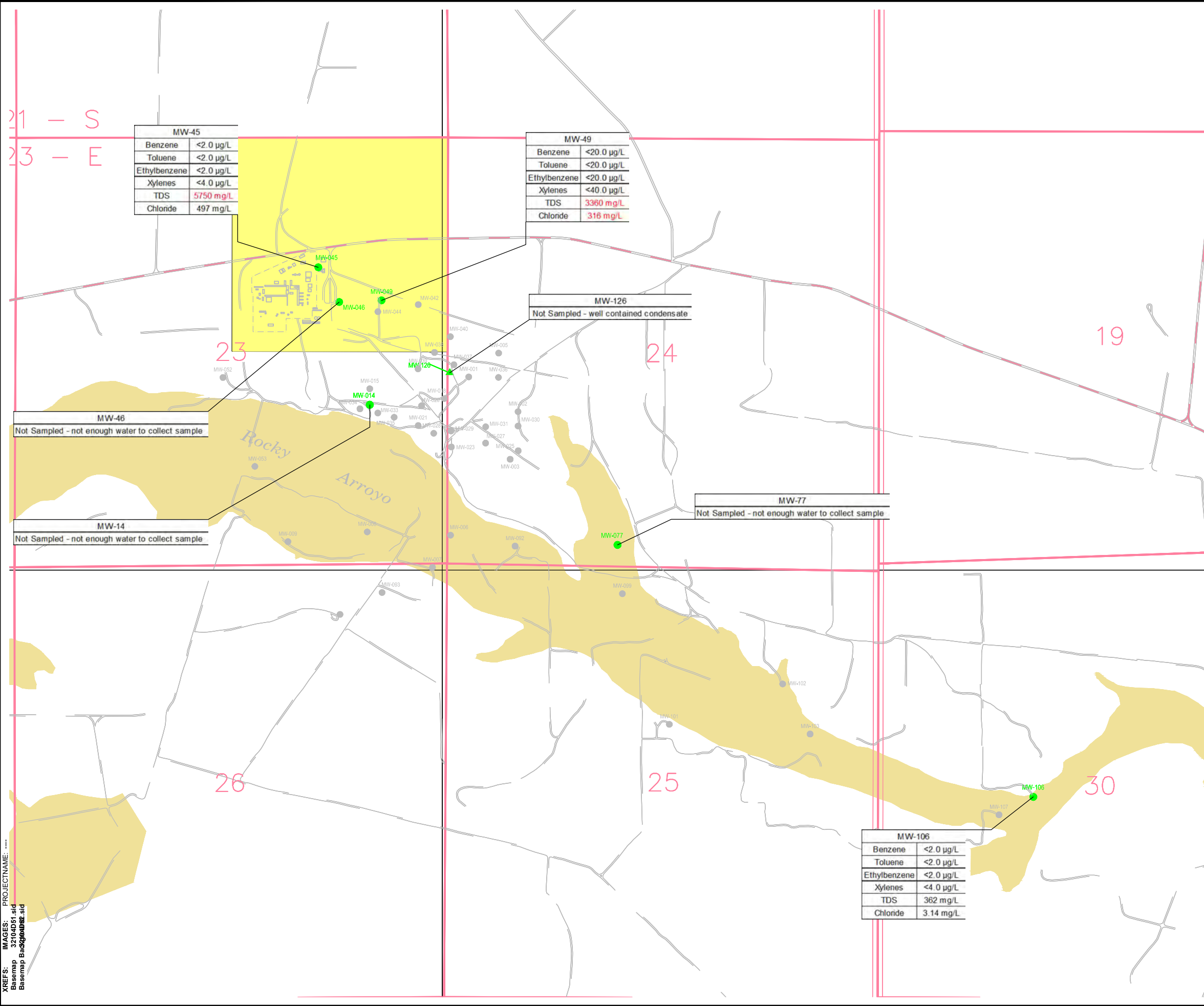


- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ RECOVERY WELL
  - ▲ PLUGGED RECOVERY WELL
  - PLUGGED INDUSTRIAL SUPPLY WELL
  - ⊕ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE II INFILL WELL INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE I INFILL WELL INSTALLED DURING JULY, 1999
  - PLUGGED INFILTRATION WELL
  - ⊕ PLUGGED VAPOR EXTRACTION WELL
  - 3,622.84' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 3,622.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 2 FEET
  - GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7 1/2 MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

<p>OXY USA WTP LIMITED PARTNERSHIP EDDY COUNTY, NEW MEXICO <b>INDIAN BASIN GAS PLANT</b> 2021 ANNUAL REPORT</p>	
<p><b>LOWER QUEEN GROUNDWATER</b> ELEVATION CONTOURS JUNE 2021</p>	
	<p>FIGURE <b>4</b></p>

CITY: Milwaukee, WI    GROUP: ENV    DB: C. McKeough    LD: PIC: M. Sanford    PM: H. McConnell    TM: A. Sides    TR: LYRON\*OFF\*REF\*    UN: 31-009-00471  
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 XREFS:    IMAGES:    PROJECTNAME:    ---  
 Basemap 32104D51.sld  
 Basemap Background.sld



- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ RECOVERY WELL
  - INDUSTRIAL SUPPLY WELL
  - ⊕ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999

COC	MW-14	WELL ID
Benzene	0.81	
Toluene	<1 µg/L	
Ethylbenzene	<1 µg/L	
Xylenes	<3 µg/L	
TDS	1430	
Chloride	61.6	

CONCENTRATION (ug/L or mg/L)  
CONSTITUENT

**OCD Cleanup Goals/Regulatory Limits**

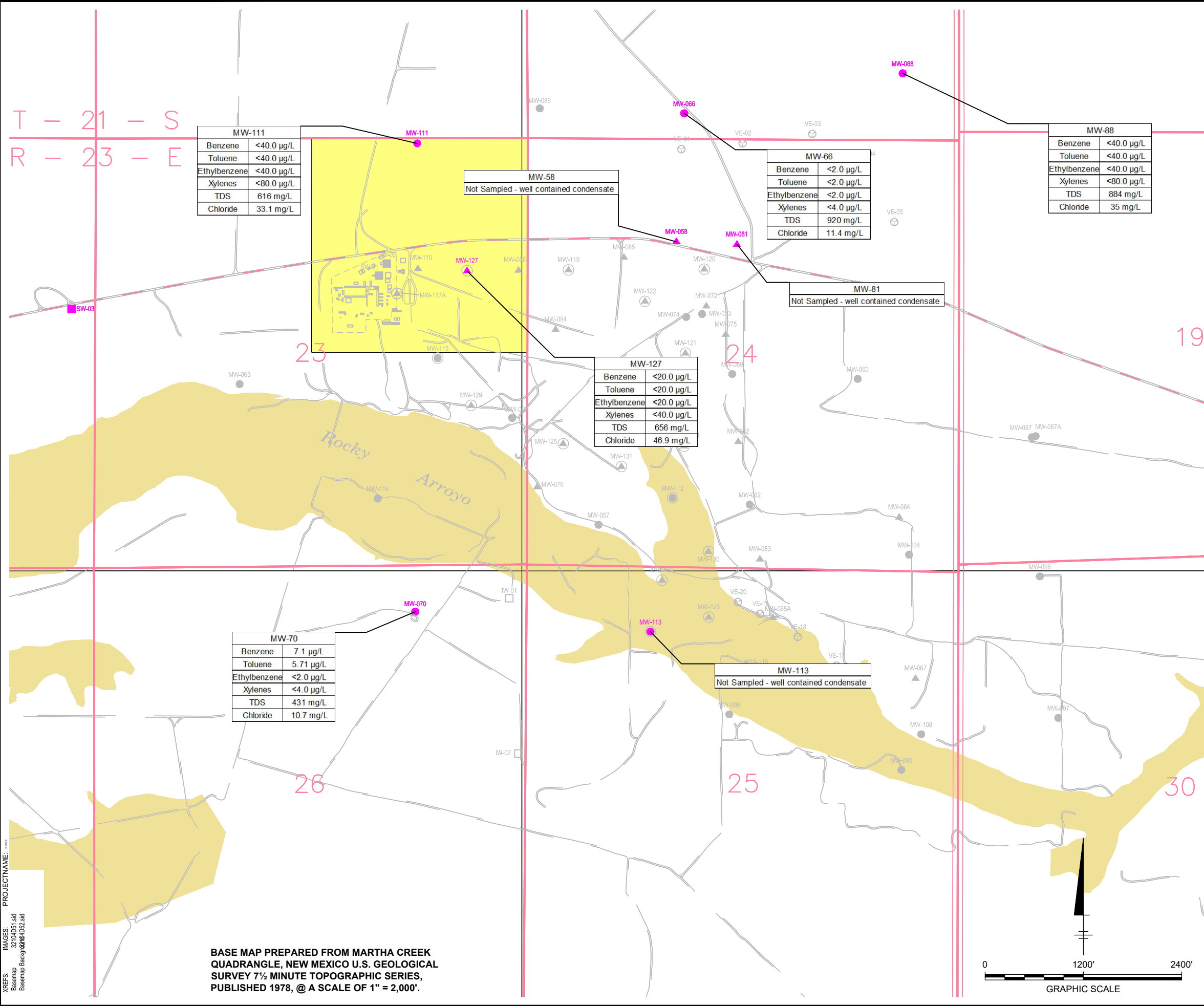
Benzene	10 µg/L
Toluene	750 µg/L
Ethylbenzene	750 µg/L
Total Xylenes	620 µg/L
Total Dissolved Solids	1,000 mg/L
Chlorides	250 mg/L

- Notes:**
- OCD NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT, OIL CONSERVATION DIVISION
  - mg/L MILLIGRAMS PER LITER
  - µg/L MICROGRAMS PER LITER
  - RED CONCENTRATIONS IN RED EXCEED THE OCD REGULATORY LIMITS

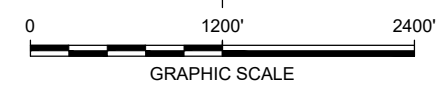
BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

OXY USA WTP LIMITED PARTNERSHIP EDDY COUNTY, NEW MEXICO <b>INDIAN BASIN GAS PLANT</b> <b>2021 ANNUAL REPORT</b>	
<b>SHALLOW ZONE BTEX,                  CHLORIDE, AND TDS</b> <b>JUNE 2021</b>	
Design & Consultancy for natural and built assets	FIGURE <b>5</b>

CITY: Milwaukee, WI GROUP: ENV DB: C. McKeough, LD: PIC: M. Sanford, PM: H. McConnell, TM: A. Sides, TR: LYRON\*OFF=REF\* UN: 31-009-00471  
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BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.



**OCD Cleanup Goals/Regulatory Limits**

Benzene	10 µg/L
Toluene	750 µg/L
Ethylbenzene	750 µg/L
Total Xylenes	620 µg/L
Total Dissolved Solids	1,000 mg/L
Chlorides	250 mg/L

**Notes:**  
 OCD NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT, OIL CONSERVATION DIVISION  
 mg/L MILLIGRAMS PER LITER  
 µg/L MICROGRAMS PER LITER  
**RED** CONCENTRATIONS IN RED EXCEEDED THE OCD REGULATORY LIMITS

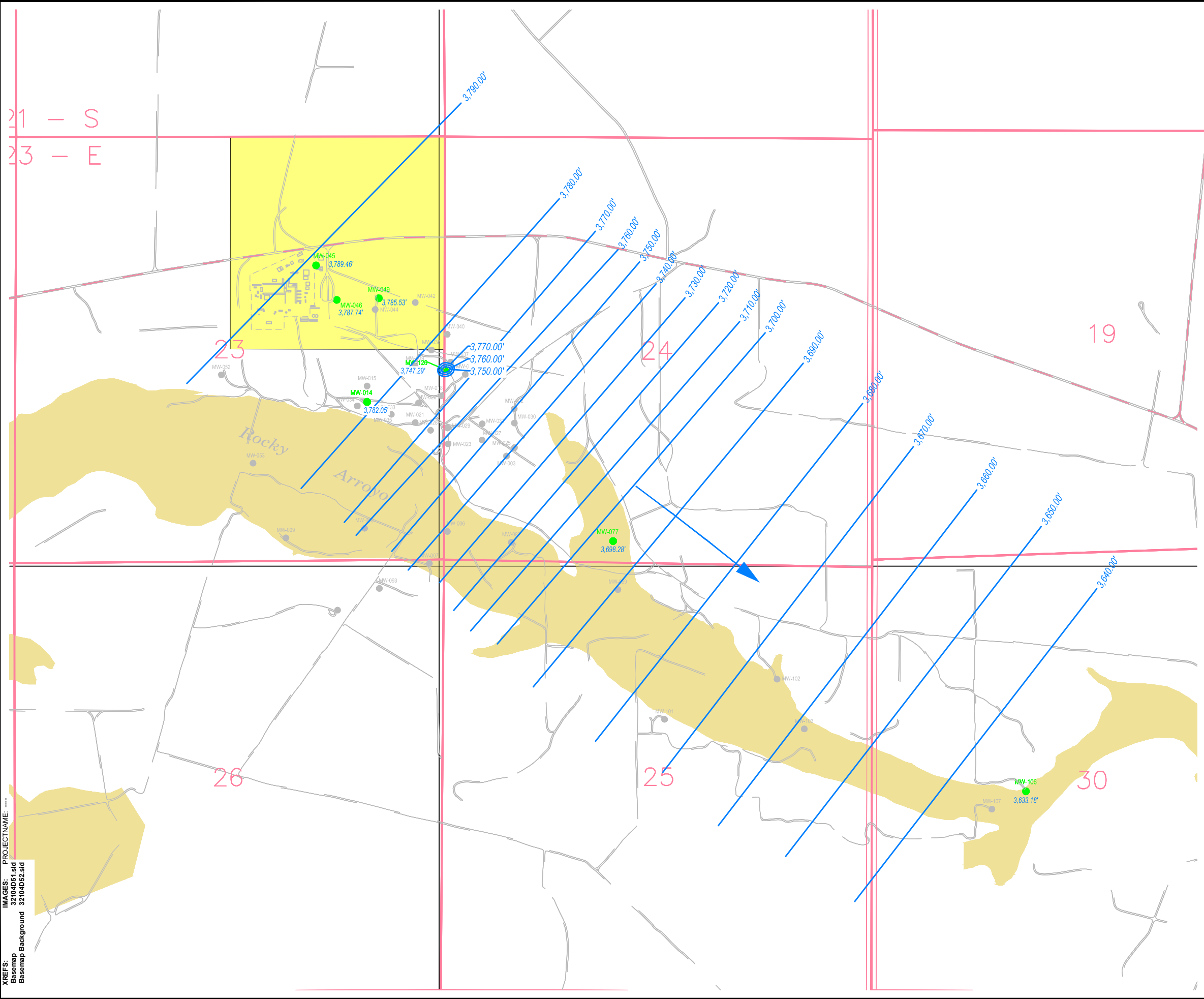
OXY USA WTP LIMITED PARTNERSHIP  
 EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT  
 2021 ANNUAL REPORT**

**LOWER QUEEN BTEX,  
 CHLORIDE, AND TDS  
 JUNE 2021**

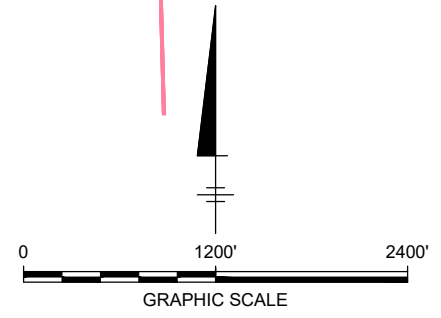
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FIGURE  
**6**

CITY: Milwaukee WI GROUP: ENV DB: C. McKeeough LD: PIC: M. Sanford PM: H. McConnell TM: A. Sides TR: LYRON\*OFF=REF\* UN: 31-009-00471  
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Basemap Background 32104052.sld



T - 21 - S  
R - 24 - E



- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
  - 3,789.46' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - DRY INDICATES WELL WAS DRY AT TIME OF GAUGING
  - 3,780.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 10 FEET
  - ▲ GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7 1/2 MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

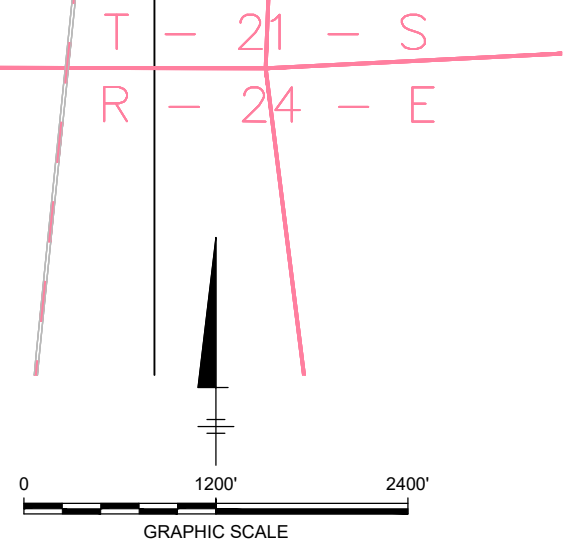
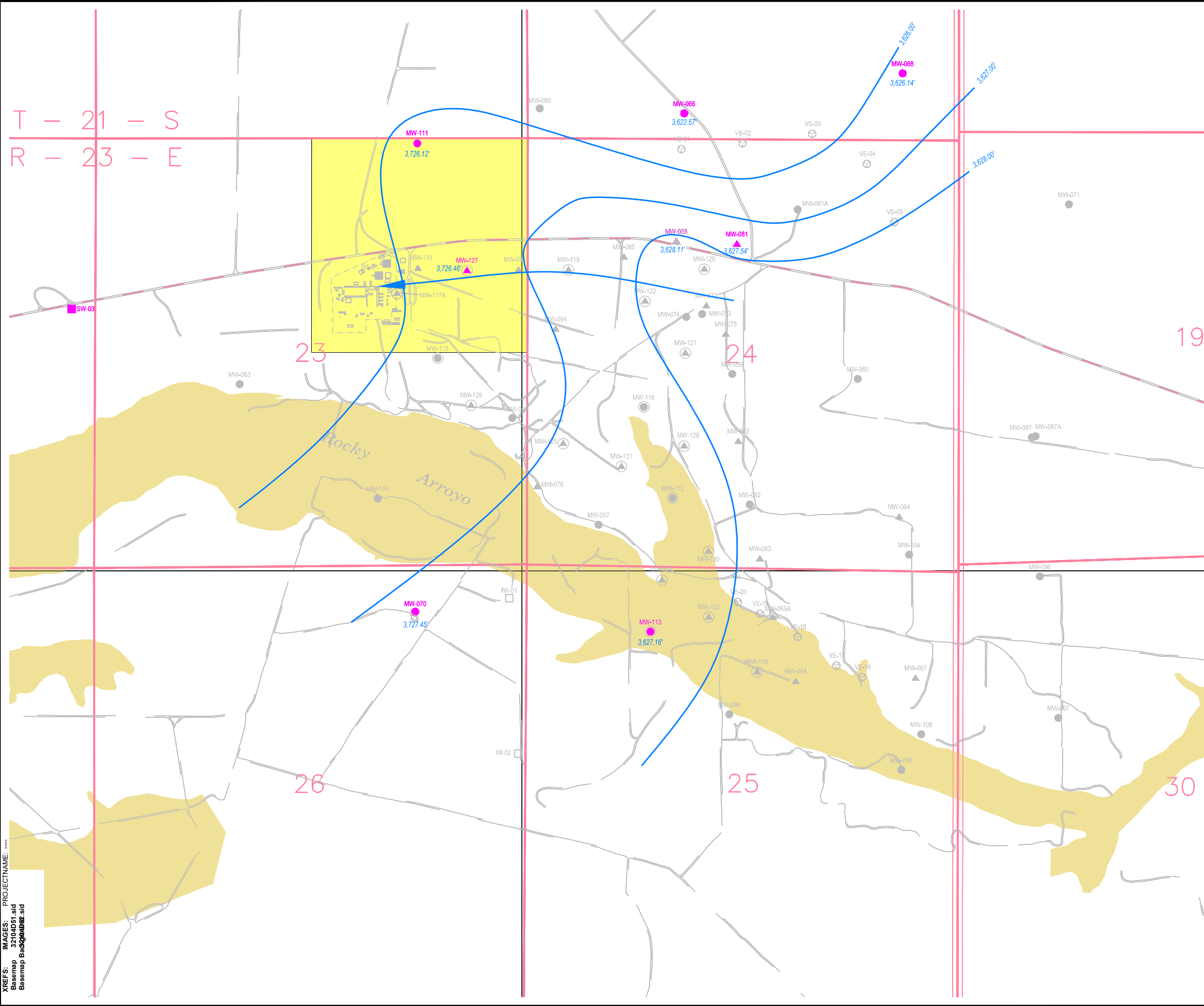
OXY USA WTP LIMITED PARTNERSHIP  
EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT  
2021 ANNUAL REPORT**

**SHALLOW ZONE GROUNDWATER  
ELEVATION CONTOURS  
DECEMBER 2021**

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for natural and built assets

FIGURE  
**7**

CITY: Milwaukee WI GROUP: ENV DB: C. McKeough LD: PIC: M. Sanford PM: H. McConnell TM: A. Sides TR: LYRON\*OFF=REF\* UN: 31-009-00471  
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Basemap Background.sld



- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ RECOVERY WELL
  - ▲ PLUGGED RECOVERY WELL
  - PLUGGED INDUSTRIAL SUPPLY WELL
  - ⊕ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE II INFILL WELL INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE I INFILL WELL INSTALLED DURING JULY, 1999
  - PLUGGED INFILTRATION WELL
  - ⊗ PLUGGED VAPOR EXTRACTION WELL
  - 3,626.12' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 3,627.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 2 FEET
  - GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7 1/2 MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

OXY USA WTP LIMITED PARTNERSHIP  
EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT  
2021 ANNUAL REPORT**

**LOWER QUEEN GROUNDWATER  
ELEVATION CONTOURS  
DECEMBER 2021**

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for natural built assets

FIGURE  
**8**

# APPENDIX A

## Historic Groundwater Elevations



**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Page 1 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
<b>Shallow Zone Wells</b>					
MW-14	12/1/1991	3803.61	9.68	0	3793.93
MW-14	10/1/1993	3803.61	22.55	0	3781.06
MW-14	1/1/1994	3803.61	22.78	0	3780.83
MW-14	1/27/1998	3803.61	22.36	0	3781.25
MW-14	6/16/1998	3803.61	22.88	0	3780.73
MW-14	4/19/1999	3803.61	23.74	0.24	3780.05
MW-14	1/5/2000	3803.61	22.22	0	3781.39
MW-14	4/26/2000	3803.61	22.74	0.03	3780.89
MW-14	9/27/2000	3803.61	23.40	0.09	3780.28
MW-14	4/16/2001	3803.61	22.15	0.01	3781.47
MW-14	10/29/2001	3803.61	21.98	0.08	3781.69
MW-14	4/15/2002	3803.61	22.81	0	3780.80
MW-14	10/14/2002	3803.61	18.17	0	3785.44
MW-14	04/15/2003	3803.61	21.87	0	3781.74
MW-14	10/14/2003	3803.61	22.19	0	3781.42
MW-14	4/5/2004	3803.61	23.45	0.01	3780.17
MW-14	10/5/2004	3803.61	18.36	0	3785.25
MW-14	4/19/2005	3803.61	21.55	0	3782.06
MW-14	10/24/2005	3803.61	20.69	0	3782.92
MW-14	4/18/2006	3803.61	22.69	0	3780.92
MW-14	10/11/2006	3803.61	19.20	0	3784.41
MW-14	4/16/2007	3803.61	22.1	0	3781.51
MW-14	10/22/2007	3803.61	21.15	0	3782.46
MW-14	5/27/2009	3803.61	23.75	0	3779.86
MW-14	6/21/2010	3803.61	24.04	0	3779.57
MW-14	12/28/2010	3803.61	22.31	0	3781.30
MW-14	6/30/2011	3803.61	24.00	0	3779.61
MW-14	12/15/2011	3803.61	23.85	0	3779.76
MW-14	6/27/2012	3803.61	22.73	0	3780.88
MW-14	12/1/2012	3803.61	23.40	0	3780.21
MW-14	6/1/2013	3803.61	22.73	0	3780.88
MW-14	12/12/2013	3803.61	20.82	0	3782.79
MW-14	6/25/2014	3803.61	20.96	0	3782.65
MW-14	12/16/2014	3803.61	20.42	0	3783.19
MW-14	4/28/2015	3803.61	21.91	0	3781.70
MW-14	10/13/2015	3803.61	19.89	0	3783.72
MW-14	5/24/2016	3803.61	22.70	0	3780.91
MW-14	12/6/2016	3803.61	21.85	0	3781.76
MW-14	7/12/2017	3803.61	23.39	0	3780.22
MW-14	12/17/2017	3803.61	23.10	0	3780.51
MW-14	7/8/2018	3803.61	23.79	0	3779.82
MW-14	11/13/2018	3803.61	21.78	0	3781.83
MW-14	6/24/2019	3803.61	23.13	0	3780.48
MW-14	12/10/2019	3803.61	21.15	0	3782.46
MW-14	6/10/2020	3803.61	22.02	0	3781.59
MW-14	11/2/2020	3803.61	23.71	0	3779.90
MW-14	6/22/2021	3803.61	23.85	0	3779.76
MW-14	12/6/2021	3803.61	21.56		3782.05
<b>MW-45</b>	<b>12/1/1991</b>	<b>3808.68</b>	<b>13.91</b>	<b>0</b>	<b>3794.77</b>

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-45	7/1/1993	3808.68	21.49	0	3787.19
MW-45	10/1/1993	3808.68	21.47	0	3787.21
MW-45	1/1/1994	3808.68	21.54	0	3787.14
MW-45	4/1/1994	3808.68	22.64	0	3786.04
MW-45	7/1/1994	3808.68	21.85	0	3786.83
MW-45	10/1/1994	3808.68	21.52	0	3787.16
MW-45	1/1/1995	3808.68	21.78	0	3786.90
MW-45	4/1/1995	3808.68	22.13	0	3786.55
MW-45	7/1/1995	3808.68	22.13	0	3786.55
MW-45	1/5/2000	3808.68	18.88	0	3789.80
MW-45	4/26/2000	3808.68	19.19	0	3789.49
MW-45	9/27/2000	3808.68	19.19	0	3789.49
MW-45	4/16/2001	3808.68	18.39	0	3790.29
MW-45	10/29/2001	3808.68	18.53	0	3790.15
MW-45	4/15/2002	3808.68	18.75	0	3789.93
MW-45	10/14/2002	3808.68	18.39	0	3790.29
MW-45	04/15/2003	3808.68	21.36	0	3787.32
MW-45	10/14/2003	3808.68	21.35	0	3787.33
MW-45	4/5/2004	3808.68	21.69	0	3786.99
MW-45	10/5/2004	3808.68	14.09	0	3794.59
MW-45	4/19/2005	3808.68	16.94	0	3791.74
MW-45	10/24/2005	3808.68	20.09	0	3788.59
MW-45	4/18/2006	3808.68	20.72	0	3787.96
MW-45	10/11/2006	3808.68	16.40	0	3792.28
MW-45	4/16/2007	3808.68	19.98	0	3788.70
MW-45	10/22/2007	3808.68	15.95	0	3792.73
MW-45	5/27/2009	3808.68	21.56	0	3787.12
MW-45	6/21/2010	3808.68	21.52	0	3787.16
MW-45	12/28/2010	3808.68	20.05	0	3788.63
MW-45	6/30/2011	3808.68	19.47	0	3789.21
MW-45	12/15/2011	3808.68	20.20	0	3788.48
MW-45	6/27/2012	3808.68	21.47	0	3787.21
MW-45	12/1/2012	3808.68	21.22	0	3787.46
MW-45	6/1/2013	3808.68	21.47	0	3787.21
MW-45	12/12/2013	3808.68	18.77	0	3789.91
MW-45	6/25/2014	3808.68	16.12	0	3792.56
MW-45	12/16/2014	3808.68	16.95	0	3791.73
MW-45	4/28/2015	3808.68	19.90	0	3788.78
MW-45	10/13/2015	3808.68	19.79	0	3788.89
MW-45	5/24/2016	3808.68	22.14	0	3786.54
MW-45	12/6/2016	3808.68	21.06	0	3787.62
MW-45	7/12/2017	3808.68	21.45	0	3787.23
MW-45	12/17/2017	3808.68	20.11	0	3788.57
MW-45	7/8/2018	3808.68	21.54	0	3787.14
MW-45	11/13/2018	3808.68	21.00	0	3787.68
MW-45	6/24/2019	3808.68	19.20	0	3789.48
MW-45	12/10/2019	3808.68	18.95	0	3789.73
MW-45	6/10/2020	3808.68	20.06	0	3788.62
MW-45	11/2/2020	3808.68	21.53	0	3787.15
MW-45	6/22/2021	3808.68	21.68	0	3787.00
MW-45	12/6/2021	3809.68	19.22	0	3789.46

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**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

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Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-46	10/1/1993	3805.54	19.87	0	3785.67
MW-46	1/1/1994	3805.54	19.42	0	3786.12
MW-46	4/1/1994	3805.54	19.59	0	3785.95
MW-46	10/1/1994	3805.54	19.20	0	3786.34
MW-46	4/1/1995	3805.54	19.55	0	3785.99
MW-46	7/1/1995	3805.54	19.55	0	3785.99
MW-46	1/16/1996	3805.54	19.48	0	3786.06
MW-46	4/19/1996	3805.54	19.52	0	3786.02
MW-46	7/15/1996	3805.54	19.41	0	3786.13
MW-46	10/13/1996	3805.54	15.73	0	3789.81
MW-46	2/4/1997	3805.54	18.22	0	3787.32
MW-46	4/28/1997	3805.54	16.93	0	3788.61
MW-46	7/14/1997	3805.54	17.15	0	3788.39
MW-46	10/13/1997	3805.54	18.01	0	3787.53
MW-46	1/27/1998	3805.54	17.54	0	3788.00
MW-46	4/27/1998	3805.54	18.34	0	3787.20
MW-46	6/16/1998	3805.54	18.69	0	3786.85
MW-46	10/10/1998	3805.54	17.82	0	3787.72
MW-46	1/27/1999	3805.54	16.91	0	3788.63
MW-46	4/19/1999	3805.54	17.44	0	3788.10
MW-46	1/5/2000	3805.54	16.76	0	3788.78
MW-46	4/26/2000	3805.54	17.17	0	3788.37
MW-46	9/27/2000	3805.54	17.42	0	3788.12
MW-46	4/16/2001	3805.54	16.68	0	3788.86
MW-46	10/29/2001	3805.54	16.79	0	3788.75
MW-46	4/15/2002	3805.54	17.49	0	3788.05
MW-46	10/14/2002	3805.54	17.83	0	3787.71
MW-46	04/15/2003	3805.54	19.38	0	3786.16
MW-46	10/14/2003	3805.54	19.62	0	3785.92
MW-46	4/5/2004	3805.54	19.63	0	3785.91
MW-46	10/5/2004	3805.54	13.05	0	3792.49
MW-46	4/19/2005	3805.54	16.27	0	3789.27
MW-46	10/24/2005	3805.54	19.38	0	3786.16
MW-46	4/18/2006	3805.54	19.35	0	3786.19
MW-46	10/11/2006	3805.54	15.74	0	3789.80
MW-46	4/16/2007	3805.54	19.34	0	3786.20
MW-46	10/22/2007	3805.54	15.67	0	3789.87
MW-46	5/27/2009	3805.54	19.38	0	3786.16
MW-46	6/21/2010	3805.54	19.42	0	3786.12
MW-46	12/28/2010	3805.54	18.27	0	3787.27
MW-46	6/30/2011	3805.54	19.54	0	3786.00
MW-46	12/15/2011	3805.54	18.35	0	3787.19
MW-46	6/27/2012	3805.54	19.33	0	3786.21
MW-46	12/1/2012	3805.54	19.33	0	3786.21
MW-46	6/1/2013	3805.54	19.33	0	3786.21
MW-46	12/12/2013	3805.54	16.88	0	3788.66
MW-46	6/25/2014	3805.54	15.67	0	3789.87
MW-46	12/16/2014	3805.54	16.31	0	3789.23
MW-46	4/28/2015	3805.54	18.54	0	3787.00
MW-46	10/13/2015	3805.54	17.98	0	3787.56
MW-46	5/24/2016	3805.54	19.45	0	3786.09
MW-46	12/6/2016	3805.54	19.81	0	3785.73

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**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-46	7/12/2017	3805.54	19.25	0	3786.29
MW-46	12/17/2017	3805.54	18.15	0	3787.39
MW-46	7/8/2018	3805.54	19.31	0	3786.23
MW-46	11/13/2018	3805.54	18.70	0	3786.84
MW-46	6/24/2019	3805.54	18.24	0	3787.30
MW-46	12/10/2019	3805.54	17.00	0	3788.54
MW-46	6/10/2020	3805.54	18.05	0	3787.49
MW-46	11/2/2020	3805.54	19.53	0	3786.01
MW-46	6/22/2021	3805.54	19.35	0	3786.19
MW-46	12/6/2021	3805.54	17.80	0	3787.74
<b>MW-49</b>	<b>12/1/1991</b>	<b>3805.61</b>	<b>16.60</b>	<b>0</b>	<b>3789.01</b>
MW-49	7/1/1993	3805.61	21.98	0	3783.63
MW-49	10/1/1993	3805.61	21.93	0	3783.68
MW-49	1/1/1994	3805.61	22.27	0	3783.34
MW-49	4/1/1994	3805.61	22.64	0	3782.97
MW-49	7/1/1994	3805.61	22.73	0	3782.88
MW-49	10/1/1994	3805.61	22.30	0	3783.31
MW-49	1/1/1995	3805.61	22.56	0	3783.05
MW-49	4/1/1995	3805.61	22.94	0	3782.67
MW-49	7/1/1995	3805.61	22.94	0	3782.67
MW-49	10/1/1995	3805.61	22.68	0	3782.93
MW-49	1/16/1996	3805.61	22.55	0	3783.06
MW-49	4/19/1996	3805.61	22.59	0	3783.02
MW-49	7/15/1996	3805.61	22.76	0	3782.85
MW-49	10/13/1996	3805.61	19.54	0	3786.07
MW-49	2/3/1997	3805.61	20.66	0	3784.95
MW-49	3/18/1997	3805.61	20.99	0	3784.62
MW-49	4/28/1997	3805.61	20.70	0	3784.91
MW-49	7/14/1997	3805.61	20.31	0	3785.30
MW-49	10/13/1997	3805.61	21.01	0	3784.60
MW-49	1/27/1998	3805.61	21.08	0	3784.53
MW-49	4/27/1998	3805.61	21.34	0	3784.27
MW-49	6/16/1998	3805.61	21.35	0	3784.26
MW-49	10/9/1998	3805.61	22.52	0	3783.09
MW-49	1/27/1999	3805.61	20.50	0	3785.11
MW-49	4/19/1999	3805.61	20.81	0	3784.80
MW-49	1/5/2000	3805.61	20.07	0	3785.54
MW-49	4/26/2000	3805.61	20.30	0	3785.31
MW-49	9/27/2000	3805.61	20.52	0	3785.09
MW-49	4/16/2001	3805.61	20.03	0	3785.58
MW-49	10/29/2001	3805.61	19.96	0	3785.65
MW-49	4/15/2002	3805.61	19.76	0	3785.85
MW-49	10/14/2002	3805.61	20.56	0	3785.05
MW-49	04/15/2003	3805.61	22.08	0	3783.53
MW-49	10/14/2003	3805.61	22.52	0	3783.09
MW-49	4/5/2004	3805.61	22.79	0	3782.82
MW-49	10/5/2004	3805.61	18.33	0	3787.28
MW-49	4/19/2005	3805.61	18.23	0	3787.38
MW-49	10/24/2005	3805.61	21.01	0	3784.60
MW-49	4/18/2006	3805.61	22.29	0	3783.32
MW-49	10/11/2006	3805.61	20.49	0	3785.12

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**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-49	4/16/2007	3805.61	21.43	0	3784.18
MW-49	10/22/2007	3805.61	18.81	0	3786.80
MW-49	5/27/2009	3805.61	22.35	0	3783.26
MW-49	6/21/2010	3805.61	22.33	0	3783.28
MW-49	12/28/2010	3805.61	20.92	0	3784.69
MW-49	6/30/2011	3805.61	21.95	0	3783.66
MW-49	12/15/2011	3805.61	21.11	0	3784.50
MW-49	6/27/2012	3805.61	22.40	0	3783.21
MW-49	12/1/2012	3805.61	22.12	0	3783.49
MW-49	6/1/2013	3805.61	22.40	0	3783.21
MW-49	12/12/2013	3805.61	20.05	0	3785.56
MW-49	6/25/2014	3805.61	19.42	0	3786.19
MW-49	12/16/2014	3805.61	17.49	0	3788.12
MW-49	4/28/2015	3805.61	20.21	0	3785.40
MW-49	10/13/2015	3805.61	20.95	0	3784.66
MW-49	5/24/2016	3805.61	21.41	0	3784.20
MW-49	12/6/2016	3805.61	21.62	0	3783.99
MW-49	7/12/2017	3805.61	22.40	0	3783.21
MW-49	12/17/2017	3805.61	21.08	0	3784.53
MW-49	7/8/2018	3805.61	22.31	0	3783.30
MW-49	11/13/2018	3805.61	22.59	0	3783.02
MW-49	6/24/2019	3805.61	22.38	0	3783.23
MW-49	12/10/2019	3805.61	21.22	0	3784.39
MW-49	6/10/2020	3805.61	20.94	0	3784.67
MW-49	11/2/2020	3805.61	22.36	0	3783.25
MW-49	6/22/2021	3805.61	23.02	0	3782.59
MW-49	12/6/2021	3805.61	20.08	0	3785.53
<b>MW-77</b>	<b>1/1/1995</b>	<b>3775.48</b>	<b>80.03</b>	<b>0</b>	<b>3695.45</b>
MW-77	4/1/1995	3775.48	80.04	0	3695.44
MW-77	7/1/1995	3775.48	80.04	0	3695.44
MW-77	10/1/1995	3775.48	79.70	0	3695.78
MW-77	1/16/1996	3775.48	79.84	0	3695.64
MW-77	4/17/1996	3775.48	78.95	0	3696.53
MW-77	7/16/1996	3775.48	79.42	0	3696.06
MW-77	10/14/1996	3775.48	80.02	0	3695.46
MW-77	2/4/1997	3775.48	D	0	--
MW-77	4/29/1997	3775.48	80.35	0	3695.13
MW-77	7/15/1997	3775.48	80.31	0	3695.17
MW-77	10/14/1997	3775.48	78.92	0	3696.56
MW-77	1/28/1998	3775.48	77.00	0	3698.48
MW-77	4/27/1998	3775.48	78.48	0	3697.00
MW-77	6/16/1998	3775.48	75.30	0	3700.18
MW-77	10/10/1998	3775.48	79.84	0	3695.64
MW-77	1/27/1999	3775.48	76.41	0	3699.07
MW-77	4/19/1999	3775.48	77.50	0	3697.98
MW-77	1/5/2000	3775.48	79.36	0	3696.12
MW-77	4/26/2000	3775.48	78.57	0	3696.91
MW-77	9/27/2000	3775.48	78.86	0	3696.62
MW-77	4/16/2001	3775.48	79.91	0	3695.57
MW-77	10/29/2001	3775.48	79.72	0	3695.76
MW-77	4/15/2002	3775.48	80.42	0	3695.06

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**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-77*	10/14/2002	3775.48	57.95	0	3717.53
MW-77	04/15/2003	3775.48	69.95	0	3705.53
MW-77	10/14/2003	3775.48	73.98	0	3701.50
MW-77	4/5/2004	3775.48	79.88	0	3695.60
MW-77	10/5/2004	3775.48	63.37	0	3712.11
MW-77	4/19/2005	3775.48	67.06	0	3708.42
MW-77	10/24/2005	3775.48	63.89	0	3711.59
MW-77	4/18/2006	3775.48	80.43	0	3695.05
MW-77	10/11/2006	3775.48	78.89	0	3696.59
MW-77	4/17/2007	3775.48	76.32	0	3699.16
MW-77	10/22/2007	3775.48	73.36	0	3702.12
MW-77	5/27/2009	3775.48	D	0	--
MW-77	6/21/2010	3775.48	80.57	0	3694.91
MW-77	12/28/2010	3775.48	80.37	0	3695.11
MW-77	6/30/2011	3775.48	80.47	0	3695.01
MW-77	12/15/2011	3775.48	80.55	0	3694.93
MW-77	6/27/2012	3775.48	81.00	0	3694.48
MW-77	12/1/2012	3775.48	80.51	0	3694.97
MW-77	6/1/2013	3775.48	81.00	0	3694.48
MW-77	12/12/2013	3775.48	78.76	0	3696.72
MW-77	6/25/2014	3775.48	71.32	0	3704.16
MW-77	12/16/2014	3775.48	80.45	0	3695.03
MW-77	4/28/2015	3775.48	80.61	0	3694.87
MW-77	10/13/2015	3775.48	80.63	0	3694.85
MW-77	5/24/2016	3775.48	80.47	0	3695.01
MW-77	12/6/2016	3775.48	80.50	0	3694.98
MW-77	7/12/2017	3775.48	80.55	0	3694.93
MW-77	12/17/2017	3775.48	80.41	0	3695.07
MW-77	7/8/2018	3775.48	80.49	0	3694.99
MW-77	11/13/2018	3775.48	80.30	0	3695.18
MW-77	6/24/2019	3775.48	80.26	0	3695.22
MW-77	12/10/2019	3775.48	72.72	0	3702.76
MW-77	6/10/2020	3775.48	80.50	0	3694.98
MW-77	11/2/2020	3775.48	70.62	0	3704.86
MW-77	6/22/2021	3775.48	80.54	0	3694.94
MW-77	12/6/2021	3775.48	77.20	0	3698.28
<b>MW-106</b>	<b>2/4/1997</b>	<b>3721.97</b>	<b>87.97</b>	<b>0</b>	<b>3634.00</b>
MW-106	4/28/1997	3721.97	87.59	0	3634.38
MW-106	7/15/1997	3721.97	87.63	0	3634.34
MW-106	10/13/1997	3721.97	88.75	0	3633.22
MW-106	1/28/1998	3721.97	88.97	0	3633.00
MW-106	4/27/1998	3721.97	89.36	0	3632.61
MW-106	6/15/1998	3721.97	89.63	0	3632.34
MW-106	10/10/1998	3721.97	89.61	0	3632.36
MW-106	1/27/1999	3721.97	86.55	0	3635.42
MW-106	4/19/1999	3721.97	89.58	0	3632.39
MW-106	1/5/2000	3721.97	89.05	0	3632.92
MW-106	4/26/2000	3721.97	89.31	0	3632.66
MW-106	9/27/2000	3721.97	87.98	0	3633.99
MW-106	4/16/2001	3721.97	88.81	0	3633.16
MW-106	10/29/2001	3721.97	89.05	0	3632.92

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-106	4/15/2002	3721.97	89.05	0	3632.92
MW-106	10/14/2002	3721.97	87.40	0	3634.57
MW-106	04/15/2003	3721.97	88.91	0	3633.06
MW-106	10/14/2003	3721.97	89.94	0	3632.03
MW-106	4/5/2004	3721.97	89.34	0	3632.63
MW-106	10/5/2004	3721.97	75.78	0	3646.19
MW-106	4/19/2005	3721.97	88.54	0	3633.43
MW-106	10/24/2005	3721.97	88.47	0	3633.50
MW-106	4/18/2006	3721.97	89.71	0	3632.26
MW-106	10/11/2006	3721.97	87.09	0	3634.88
MW-106	4/17/2007	3721.97	89.4	0	3632.57
MW-106	10/22/2007	3721.97	88.64	0	3633.33
MW-106	5/27/2009	3721.97	D	--	--
MW-106	6/21/2010	3721.97	90.06	0	3631.91
MW-106	12/28/2010	3721.97	89.47	0	3632.50
MW-106	6/30/2011	3721.97	89.93	0	3632.04
MW-106	12/15/2011	3721.97	90.02	0	3631.95
MW-106	6/27/2012	3721.97	87.75	0	3634.22
MW-106	12/1/2012	3721.97	89.71	0	3632.26
MW-106	6/1/2013	3721.97	87.50	0	3634.47
MW-106	12/12/2013	3721.97	88.62	0	3633.35
MW-106	6/25/2014	3721.97	88.27	0	3633.70
MW-106	12/16/2014	3721.97	88.44	0	3633.53
MW-106	4/28/2015	3721.97	89.03	0	3632.94
MW-106	10/13/2015	3721.97	88.01	0	3633.96
MW-106	5/24/2016	3721.97	89.76	0	3632.21
MW-106	12/6/2016	3721.97	89.93	0	3632.04
MW-106	7/12/2017	3721.97	89.79	0	3632.18
MW-106	12/17/2017	3721.97	89.72	0	3632.25
MW-106	7/8/2018	3721.97	89.68	0	3632.29
MW-106	11/13/2018	3721.97	88.54	0	3633.43
MW-106	6/24/2019	3721.97	88.10	0	3633.87
MW-106	12/10/2019	3721.97	88.20	0	3633.77
MW-106	6/10/2020	3721.97	89.50	0	3632.47
MW-106	11/2/2020	3721.97	89.11	0	3632.86
MW-106	6/22/2021	3721.97	88.46	0	3633.51
MW-106	12/6/2021	3721.97	88.79	0	3633.18
<b>MW-126</b>	<b>1/5/2000</b>	<b>3795.58</b>	<b>53.08</b>	<b>0</b>	<b>3742.50</b>
MW-126	4/26/2000	3795.58	54.03	0	3741.55
MW-126	9/27/2000	3795.58	60.29	0	3735.29
MW-126	4/16/2001	3795.58	54.25	0.52	3741.71
MW-126	10/29/2001	3795.58	57.82	2.1	3739.29
MW-126	4/15/2002	3795.58	56.95	2.23	3740.26
MW-126	10/14/2002	3795.58	54.03	2.57	3743.43
MW-126	04/15/2003	3796.28	63.65	3.96	3735.52
MW-126	10/14/2003	3796.28	68.01	0	3728.27
MW-126	4/5/2004	3796.28	70.04	0	3726.24
MW-126	10/5/2004	3796.28	48.01	0.01	3748.28
MW-126	4/19/2005	3796.28	50.63	0.25	3745.83
MW-126	10/24/2005	3796.28	51.78	0	3744.50
MW-126	4/18/2006	3796.28	66.79	0	3729.49

D = Dry  
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 NR = No Record

**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-126	10/11/2006	3796.28	51.76	0.08	3744.58
MW-126	4/17/2007	3796.28	62.92	0.6	3732.92
MW-126	10/22/2007	3796.28	56.30	0	3739.98
MW-126	5/27/2009	3796.28	69.95	0.05	3726.37
MW-126	6/21/2010	3796.28	70.40	0.23	3726.05
MW-126	12/28/2010	3796.28	66.12	0.56	3730.57
MW-126	6/30/2011	3796.28	69.55	0.45	3727.06
MW-126	12/15/2011	3796.28	70.21	0.22	3726.23
MW-126	6/27/2012	3796.28	67.72	0.29	3728.77
MW-126	12/1/2012	3796.28	71.19	0	3725.10
MW-126	6/1/2013	3796.28	72.00	0	3724.28
MW-126	12/12/2013	3796.28	53.52	0.11	3742.84
MW-126	6/25/2014	3796.28	63.63	0.08	3732.71
MW-126	12/16/2014	3796.28	44.65	0.19	3751.77
MW-126	4/28/2015	3796.28	52.46	0.21	3743.97
MW-126	10/13/2015	3796.28	65.03	0.27	3731.45
MW-126	5/24/2016	3796.28	66.50	0.27	3729.98
MW-126	12/6/2016	3796.28	62.04	0.69	3734.74
MW-126	7/12/2017	3796.28	69.83	0.3	3726.67
MW-126	12/17/2017	3796.28	66.64	0.21	3729.79
MW-126	7/8/2018	3796.28	69.72	0.2	3726.71
MW-126	11/13/2018	3796.28	67.79	0.16	3728.61
MW-126	6/24/2019	3796.28	69.73	0.20	3726.70
MW-126	12/10/2019	3796.28	53.72	0.12	3742.65
MW-126	6/10/2020	3796.28	65.52	0.12	3730.85
MW-126	11/2/2020	3796.28	68.32	0.17	3728.08
MW-126	6/22/2021	3796.28	70.36	0.10	3725.99
MW-126	12/6/2021	3796.28	48.96	0.12	3747.41

**Lower Queen Wells**

MW-58	7/16/1991	3824.07	197.91	0	3626.16
MW-58	8/21/1991	3824.07	193.76	0	3630.31
MW-58	9/18/1991	3824.07	193.26	0	3630.81
MW-58	10/22/1991	3824.07	194.45	0	3629.62
MW-58	11/15/1991	3824.07	194.77	0	3629.30
MW-58	1/16/1996	3824.07	D	--	--
MW-58	7/16/1996	3824.07	D	--	--
MW-58	10/14/1996	3824.07	196.01	0.01	3628.06
MW-58	2/4/1997	3824.07	203.00	0	3621.07
MW-58	4/28/1997	3824.07	204.14	0	3619.93
MW-58	7/15/1997	3824.07	197.66	0	3626.41
MW-58	10/1/1997	3824.07	199.20	0.3	3625.08
MW-58	10/9/1997	3824.07	199.52	0.67	3625.03
MW-58	10/14/1997	3824.07	196.10	0	3627.97
MW-58	1/28/1998	3824.07	198.55	0	3625.52
MW-58	5/28/1998	3824.07	205.14	0	3618.93
MW-58	10/11/1998	3824.07	200.48	0	3623.59
MW-58	1/27/1999	3824.07	D	--	--
MW-58	4/19/1999	3824.07	217.17	0	3606.90
MW-58	1/5/2000	3824.07	210.57	0	3613.50
MW-58	4/26/2000	3824.07	223.51	0	3600.56

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 NR = No Record

**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-58	9/27/2000	3824.07	220.18	0	3603.89
MW-58	4/16/2001	3824.07	114.83	0	3709.24
MW-58	10/29/2001	3824.07	177.31	0	3644.41
MW-58	4/15/2002	3824.07	201.92	0	3622.15
MW-58	10/14/2002	3824.07	199.69	0	3624.38
MW-58	2/13/2003	3824.07	201.08	0	3622.99
MW-58	3/10/2003	3824.07	202.20	0	3621.87
MW-58	04/15/2003	3824.07	201.17	0	3622.90
MW-58	5/15/2003	3824.07	201.82	0	3622.25
MW-58	6/24/2003	3824.07	201.71	0	3622.36
MW-58	7/15/2003	3824.07	202.89	0	3621.18
MW-58	8/8/2003	3824.07	201.98	0	3622.09
MW-58	9/12/2005	3824.07	202.20	0	3621.87
MW-58	10/14/2003	3824.07	202.19	0	3621.88
MW-58	11/7/2003	3824.07	202.29	0	3621.78
MW-58	12/4/2003	3824.07	202.26	0	3621.81
MW-58	1/8/2004	3824.07	202.38	0.1	3621.76
MW-58	2/12/2004	3824.07	202.47	0	3621.60
MW-58	3/25/2004	3824.07	202.49	0	3621.58
MW-58	4/5/2004	3824.07	202.32	0	3621.75
MW-58	5/27/2004	3824.07	201.37	0.01	3622.71
MW-58	6/17/2004	3824.07	202.00	0	3622.07
MW-58	7/15/2004	3824.07	202.08	0	3621.99
MW-58	8/19/2004	3824.07	202.98	0.06	3621.13
MW-58	9/9/2004	3824.07	201.74	0	3622.33
MW-58	10/5/2004	3824.07	198.82	0	3625.25
MW-58	11/19/2004	3824.07	199.30	0.28	3624.97
MW-58	12/7/2004	3824.07	202.14		3621.93
MW-58	1/11/2005	3824.07	200.70	0.58	3623.79
MW-58	2/8/2005	3824.07	200.56	0	3623.51
MW-58	3/8/2005	3824.07	200.87	0	3623.20
MW-58	4/19/2005	3824.07	207.19	0	3616.88
MW-58	5/9/2005	3824.07	207.19	0	3616.88
MW-58	6/21/2005	3824.07	200.04	0	3624.03
MW-58	7/19/2005	3824.07	199.94	0	3624.13
MW-58	8/8/2005	3824.07	200.03	0	3624.04
MW-58	9/20/2005	3824.07	199.02	0	3625.05
MW-58	10/24/2005	3824.07	199.84	0.46	3624.57
MW-58	4/18/2006	3824.07	200.05	0	3624.02
MW-58	10/11/2006	3824.07	199.04	0.2	3625.18
MW-58	4/16/2007	3824.07	200.49	0.52	3623.20
MW-58	10/22/2007	3824.07	199.65	0	3624.42
MW-58	5/27/2009	3824.07	200.73	5.26	3627.18
MW-58	6/21/2010	3824.07	200.74	0.11	3623.41
MW-58	12/28/2010	3824.07	200.71	0.40	3623.65
MW-58	6/30/2011	3824.07	198.01	2.29	3627.73
MW-58	12/15/2011	3824.07	201.30	0.13	3622.86
MW-58	6/27/2012	3824.07	197.05	2.35	3628.74
MW-58	12/1/2012	3824.07	201.80	0.63	3622.73
MW-58	6/1/2013	3824.07	202.38	0.53	3622.08
MW-58	12/12/2013	3824.07	201.15	0.31	3623.15
MW-58	6/25/2014	3824.07	201.56	0	3622.51

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-58	12/16/2014	3824.07	199.18	0	3624.89
MW-58	4/28/2015	3824.07	199.71	0.02	3624.37
MW-58*	10/13/2015	3824.07	160.00	0	3664.07
MW-58*	5/24/2016	3824.07	195.31	0.001	3628.76
MW-58*	12/6/2016	3824.07	130.48	0.001	3693.59
MW-58*	7/12/2017	3824.07	189.15	0.001	3634.92
MW-58	12/17/2017	3824.07	200.16	0	3623.91
MW-58	7/8/2018	3824.07	184.53	0	3639.54
MW-58	11/13/2018	3824.07	200.56	0	3623.51
MW-58	6/24/2019	3824.07	200.50	0.3	3623.79
MW-58	12/10/2019	3824.07	199.40	0.2	3624.82
MW-58	6/10/2020	3824.07	199.35	0.01	3624.73
MW-58	11/2/2020	3824.07	200.90	0.07	3623.22
MW-58	6/22/2021	3824.07	200.99	0.22	3623.24
MW-58	12/6/2021	3824.07	195.97	0.01	3628.11
<b>MW-66</b>	<b>8/21/1991</b>	<b>3828.98</b>	<b>196.77</b>	<b>0</b>	<b>3632.21</b>
MW-66	9/18/1991	3828.98	198.73	0	3630.25
MW-66	10/22/1991	3828.98	199.70	0	3629.28
MW-66	11/15/1991	3828.98	199.88	0	3629.10
MW-66	3/1/1992	3828.98	200.37	0	3628.61
MW-66	4/1/1992	3828.98	200.25	0	3628.73
MW-66	5/1/1992	3828.98	195.25	0	3633.73
MW-66	6/1/1992	3828.98	196.08	0	3632.90
MW-66	7/1/1992	3828.98	197.35	0	3631.63
MW-66	8/1/1992	3828.98	197.77	0	3631.21
MW-66	9/1/1992	3828.98	198.17	0	3630.81
MW-66	10/1/1992	3828.98	198.40	0	3630.58
MW-66	11/1/1992	3828.98	198.76	0	3630.22
MW-66	12/1/1992	3828.98	198.98	0	3630.00
MW-66	1/1/1993	3828.98	199.10	0	3629.88
MW-66	2/1/1993	3828.98	199.23	0	3629.75
MW-66	3/1/1993	3828.98	199.49	0	3629.49
MW-66	4/1/1993	3828.98	199.38	0	3629.60
MW-66	5/1/1993	3828.98	199.63	0	3629.35
MW-66	6/1/1993	3828.98	199.59	0	3629.39
MW-66	7/1/1993	3828.98	199.82	0	3629.16
MW-66	8/1/1993	3828.98	199.78	0	3629.20
MW-66	9/1/1993	3828.98	200.01	0	3628.97
MW-66	10/1/1993	3828.98	200.09	0	3628.89
MW-66	11/1/1993	3828.98	200.35	0	3628.63
MW-66	12/1/1993	3828.98	200.42	0	3628.56
MW-66	1/1/1994	3828.98	200.33	0	3628.65
MW-66	2/1/1994	3828.98	201.39	0	3627.59
MW-66	3/1/1994	3828.98	201.44	0	3627.54
MW-66	4/1/1994	3828.98	201.36	0	3627.62
MW-66	5/1/1994	3828.98	201.26	0	3627.72
MW-66	7/1/1994	3828.98	200.91	0	3628.07
MW-66	8/1/1994	3828.98	199.86	0	3629.12
MW-66	9/1/1994	3828.98	200.66	0	3628.32
MW-66	10/1/1994	3828.98	200.83	0	3628.15
MW-66	12/1/1994	3828.98	201.96	0	3627.02

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-66	1/1/1995	3828.98	201.04	0	3627.94
MW-66	4/1/1995	3828.98	202.26	0	3626.72
MW-66	7/1/1995	3828.98	201.59	0	3627.39
MW-66	10/1/1995	3828.98	201.62	0	3627.36
MW-66	1/16/1996	3828.98	200.89	0	3628.09
MW-66	4/17/1996	3828.98	202.29	0	3626.69
MW-66	7/16/1996	3828.98	202.45	0	3626.53
MW-66	10/13/1996	3828.98	200.80	0	3628.18
MW-66	2/4/1997	3828.98	202.60	0	3626.38
MW-66	4/28/1997	3828.98	202.84	0	3626.14
MW-66	7/14/1997	3828.98	202.72	0	3626.26
MW-66	9/30/1997	3828.98	204.00	0	3624.98
MW-66	10/9/1997	3828.98	204.20	0	3624.78
MW-66	10/13/1997	3828.98	203.77	0	3625.21
MW-66	1/27/1998	3828.98	203.79	0	3625.19
MW-66	4/27/1998	3828.98	204.09	0	3624.89
MW-66	5/28/1998	3828.98	204.18	0	3624.80
MW-66	6/15/1998	3828.98	204.37	0	3624.61
MW-66	10/10/1998	3828.98	204.86	0	3624.12
MW-66	1/27/1999	3828.98	205.05	0	3623.93
MW-66	4/19/1999	3828.98	205.10	0	3623.88
MW-66	1/5/1999	3828.98	205.13	0	3623.85
MW-66	4/26/2000	3828.98	205.41	0	3623.57
MW-66	9/27/2000	3828.98	205.78	0	3623.20
MW-66	4/16/2001	3828.98	205.59	0	3623.39
MW-66	10/29/2001	3828.98	206.04	0	3622.94
MW-66	4/15/2002	3828.98	205.98	0	3623.00
MW-66	10/14/2002	3828.98	199.87	0	3629.11
MW-66	04/15/2003	3828.98	205.39	0	3623.59
MW-66	10/14/2003	3828.98	206.41	0	3622.57
MW-66	4/5/2004	3828.98	206.65	0	3622.33
MW-66	10/5/2004	3828.98	203.05	0	3625.93
MW-66	4/19/2005	3828.98	205.48	0	3623.50
MW-66	10/24/2005	3828.98	204.97	0	3624.01
MW-66	4/18/2006	3828.98	205.44	0	3623.54
MW-66	10/11/2006	3828.98	204.64	0	3624.34
MW-66	4/16/2007	3828.98	205.51	0	3623.47
MW-66	10/22/2007	3828.98	205.29	0	3623.69
MW-66	5/27/2009	3828.98	206.47	0	3622.51
MW-66	6/21/2010	3828.98	206.82	0	3622.16
MW-66	12/28/2010	3828.98	206.46	0	3622.52
MW-66	6/30/2011	3828.98	206.94	0	3622.04
MW-66	12/15/2011	3828.98	207.46	0	3621.52
MW-66	6/27/2012	3828.98	208.46	0	3620.52
MW-66	12/1/2012	3828.98	208.19	0	3620.79
MW-66	6/1/2013	3828.98	208.46	0	3620.52
MW-66	12/12/2013	3828.98	207.25	0	3621.73
MW-66	6/25/2014	3828.98	208.02	0	3620.96
MW-66	12/16/2014	3828.98	205.98	0	3623.00
MW-66	4/28/2015	3828.98	206.73	0	3622.25
MW-66	10/13/2015	3828.98	206.90	0	3622.08
MW-66	5/24/2016	3828.98	207.28	0	3621.70

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-66	12/6/2016	3828.98	207.91	0	3621.07
MW-66	7/12/2017	3828.98	207.28	0	3621.70
MW-66	12/17/2017	3828.98	206.75	0	3622.23
MW-66	7/8/2018	3828.98	209.58	0	3619.40
MW-66	11/13/2018	3828.98	206.90	0	3622.08
MW-66	6/24/2019	3828.98	206.78	0	3622.20
MW-66	12/10/2019	3828.98	205.96	0	3623.02
MW-66	6/10/2020	3828.98	206.12	0	3622.86
MW-66	11/2/2020	3828.98	206.36	0	3622.62
MW-66	6/22/2021	3828.98	206.87	0	3622.11
MW-66	12/6/2021	3828.98	206.41	0	3622.57
<b>MW-70</b>	<b>9/18/1991</b>	<b>3822.57</b>	<b>191.59</b>	<b>0</b>	<b>3630.98</b>
MW-70	10/22/1991	3822.57	191.68	0	3630.89
MW-70	11/15/1991	3822.57	192.20	0	3630.37
MW-70	3/1/1992	3822.57	192.74	0	3629.83
MW-70	4/1/1992	3822.57	192.62	0	3629.95
MW-70	5/1/1992	3822.57	189.97	0	3632.60
MW-70	6/1/1992	3822.57	188.42	0	3634.15
MW-70	7/1/1992	3822.57	188.87	0	3633.70
MW-70	8/1/1992	3822.57	189.54	0	3633.03
MW-70	9/1/1992	3822.57	190.02	0	3632.55
MW-70	10/1/1992	3822.57	190.48	0	3632.09
MW-70	11/1/1992	3822.57	190.86	0	3631.71
MW-70	12/1/1992	3822.57	191.17	0	3631.40
MW-70	1/1/1993	3822.57	191.39	0	3631.18
MW-70	2/1/1993	3822.57	191.54	0	3631.03
MW-70	3/1/1993	3822.57	191.77	0	3630.80
MW-70	4/1/1993	3822.57	191.80	0	3630.77
MW-70	5/1/1993	3822.57	192.09	0	3630.48
MW-70	6/1/1993	3822.57	192.18	0	3630.39
MW-70	7/1/1993	3822.57	192.32	0	3630.25
MW-70	8/1/1993	3822.57	192.30	0	3630.27
MW-70	9/1/1993	3822.57	192.53	0	3630.04
MW-70	10/1/1993	3822.57	192.65	0	3629.92
MW-70	11/1/1993	3822.57	192.91	0	3629.66
MW-70	12/1/1993	3822.57	192.96	0	3629.61
MW-70	1/1/1994	3822.57	192.99	0	3629.58
MW-70	2/1/1994	3822.57	194.02	0	3628.55
MW-70	3/1/1994	3822.57	194.00	0	3628.57
MW-70	4/1/1994	3822.57	193.19	0	3629.38
MW-70	5/1/1994	3822.57	193.86	0	3628.71
MW-70	7/1/1994	3822.57	193.59	0	3628.98
MW-70	8/1/1994	3822.57	193.09	0	3629.48
MW-70	9/1/1994	3822.57	193.17	0	3629.40
MW-70	10/1/1994	3822.57	193.38	0	3629.19
MW-70	12/1/1994	3822.57	194.58	0	3627.99
MW-70	1/1/1995	3822.57	192.83	0	3629.74
MW-70	4/1/1995	3822.57	194.11	0	3628.46
MW-70	7/1/1995	3822.57	194.19	0	3628.38
MW-70	10/1/1995	3822.57	194.19	0	3628.38
MW-70	1/16/1996	3822.57	194.68	0	3627.89

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-70	4/17/1996	3822.57	194.94	0	3627.63
MW-70	7/15/1996	3822.57	194.70	0	3627.87
MW-70	10/13/1996	3822.57	193.98	0	3628.59
MW-70	2/3/1997	3822.57	194.47	0	3628.10
MW-70	4/28/1997	3822.57	195.01	0	3627.56
MW-70	7/14/1997	3822.57	195.44	0	3627.13
MW-70	10/1/1997	3822.57	196.20	0	3626.37
MW-70	10/13/1997	3822.57	196.05	0	3626.52
MW-70	10/29/1997	3822.57	196.24	0.01	3626.33
MW-70	11/4/1997	3822.57	196.35	0	3626.22
MW-70	11/12/1997	3822.57	196.34	0	3626.23
MW-70	11/19/1997	3822.57	196.36	0.01	3626.21
MW-70	11/24/1997	3822.57	196.36	0	3626.21
MW-70	12/10/1997	3822.57	196.47	0	3626.10
MW-70	1/27/1998	3822.57	196.22	0	3626.35
MW-70	2/25/1998	3822.57	196.45	0	3626.12
MW-70	4/27/1998	3822.57	196.48	0	3626.09
MW-70	5/28/1998	3822.57	196.91	0	3625.66
MW-70	6/15/1998	3822.57	196.74	0	3625.83
MW-70	10/9/1998	3822.57	197.27	0	3625.30
MW-70	1/27/1999	3822.57	199.24	0	3623.33
MW-70	4/19/1999	3822.57	197.40	0	3625.17
MW-70	1/5/2000	3822.57	197.73	0	3624.84
MW-70	4/26/2000	3822.57	197.71	0	3624.86
MW-70	9/27/2000	3822.57	198.02	0	3624.55
MW-70	4/16/2001	3822.57	198.34	0	3624.23
MW-70	10/29/2001	3822.57	198.30	0	3624.27
MW-70	4/15/2002	3822.57	198.85	0	3623.72
MW-70	10/14/2002	3822.57	196.95	0	3625.62
MW-70	04/15/2003	3822.57	198.12	0	3624.45
MW-70	10/14/2003	3822.57	199.14	0	3623.43
MW-70	4/5/2004	3822.57	199.41	0	3623.16
MW-70	10/5/2004	3822.57	197.30	0	3625.27
MW-70	4/19/2005	3822.57	197.70	0	3624.87
MW-70	10/24/2005	3822.57	197.24	0	3625.33
MW-70	4/18/2006	3822.57	198.46	0	3624.11
MW-70	10/11/2006	3822.57	196.99	0	3625.58
MW-70	4/17/2007	3822.57	198.51	0	3624.06
MW-70	10/22/2007	3822.57	198.03	0	3624.54
MW-70	5/27/2009	3822.57	199.45	0	3623.12
MW-70	6/21/2010	3822.57	199.54	0	3623.03
MW-70	12/28/2010	3822.57	199.13	0	3623.44
MW-70	6/30/2011	3822.57	199.75	0	3622.82
MW-70	12/15/2011	3822.57	204.65	0	3617.92
MW-70	6/27/2012	3822.57	201.46	0	3621.11
MW-70	12/1/2012	3822.57	200.14	0	3622.43
MW-70	6/1/2013	3822.57	200.49	0	3622.08
MW-70	12/12/2013	3822.57	NM	NM	NM
MW-70	6/25/2014	3822.57	201.74	0	3620.83
MW-70	12/16/2014	3822.57	198.48	0	3624.09
MW-70	4/28/2015	3822.57	199.29	0	3623.28
MW-70	10/13/2015	3822.57	199.69	0	3622.88

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 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-70	5/24/2016	3822.57	200.21	0	3622.36
MW-70	12/6/2016	3822.57	199.86	0	3622.71
MW-70	7/12/2017	3822.57	200.27	0	3622.30
MW-70	12/17/2017	3822.57	199.79	0	3622.78
MW-70	7/8/2018	3822.57	200.17	0	3622.40
MW-70	11/13/2018	3822.57	199.47	0	3623.10
MW-70	6/24/2019	3822.57	199.63	0	3622.94
MW-70	12/10/2019	3822.57	199.04	0	3623.53
MW-70	6/10/2020	3822.57	199.04	0	3623.53
MW-70	11/2/2020	3822.57	199.17	0	3623.40
MW-70	6/22/2021	3822.57	199.73	0	3622.84
MW-70	12/6/2021	3822.57	195.12	0	3627.45
<b>MW-81</b>	<b>10/1/1995</b>	<b>3817.03</b>	<b>195.77</b>	<b>2.74</b>	<b>3623.26</b>
MW-81	1/16/1996	3817.03	199.04	4.29	3621.12
MW-81	4/17/1996	3817.03	204.35	9.95	3619.94
MW-81	7/16/1996	3817.03	204.26	9.37	3619.61
MW-81	10/13/1996	3817.03	202.11	8.49	3621.11
MW-81	2/4/1997	3817.03	197.25	2.11	3621.32
MW-81	4/28/1997	3817.03	204.40	9.15	3619.30
MW-81	7/14/1997	3817.03	196.19	1.45	3621.89
MW-81	10/9/1997	3817.03	200.02	0.02	3617.02
MW-81	10/14/1997	3817.03	200.96	0.06	3616.11
MW-81	10/29/1997	3817.03	202.44	1.44	3615.64
MW-81	11/4/1997	3817.03	200.92	0	3616.11
MW-81	11/12/1997	3817.03	200.95	0.25	3616.26
MW-81	11/19/1997	3817.03	200.94	0.01	3616.09
MW-81	11/24/1997	3817.03	200.81	0	3616.22
MW-81	12/10/1997	3817.03	200.85	0	3616.18
MW-81	1/6/1998	3817.03	199.35	0	3617.68
MW-81	1/15/1998	3817.03	199.30	0	3617.73
MW-81	1/20/1998	3817.03	200.89	0.79	3616.71
MW-81	1/27/1998	3817.03	200.14	0.89	3617.53
MW-81	2/3/1998	3817.03	200.88	0.58	3616.57
MW-81	2/10/1998	3817.03	206.74	1.64	3611.48
MW-81	2/17/1998	3817.03	218.70	12.08	3607.14
MW-81	2/25/1998	3817.03	217.41	11.41	3607.94
MW-81	4/27/1998	3817.03	197.05	0	3619.98
MW-81	5/28/1998	3817.03	192.28	0	3624.75
MW-81	6/15/1998	3817.03	197.58	0	3619.45
MW-81	10/11/1998	3817.03	193.23	0	3623.80
MW-81	1/27/1999	3817.03	200.12	0	3616.91
MW-81	4/19/1999	3817.03	200.84	0	3616.19
MW-81	1/5/2000	3817.03	199.38	0	3617.65
MW-81	4/26/2000	3817.03	201.35	0	3615.68
MW-81	9/27/2000	3817.03	202.99	0	3614.04
MW-81	4/16/2001	3817.03	201.94	0	3615.09
MW-81	10/29/2001	3817.03	204.69	0	3609.04
MW-81	4/15/2002	3817.03	193.94	0	3623.09
MW-81	10/14/2002	3817.03	192.80	0	3624.23
MW-81	04/15/2003	3817.03	193.41	0	3623.62
MW-81	10/14/2003	3817.03	194.42	0	3622.61

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 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-81	4/5/2004	3817.03	194.58	0	3622.45
MW-81	10/5/2004	3817.03	192.67	2.96	3626.52
MW-81	4/19/2005	3817.03	193.75	0	3623.28
MW-81	10/24/2005	3817.03	192.46	0	3624.57
MW-81	4/18/2006	3817.03	192.78	0	3624.25
MW-81	10/11/2006	3817.03	194.15	2.56	3624.75
MW-81	4/16/2007	3817.03	198.12	6.32	3614.30
MW-81	10/22/2007	3817.03	189.54	0	3627.49
MW-81	5/27/2009	3817.03	193.97	0.10	3623.13
MW-81	6/21/2010	3817.03	194.21	0.22	3622.98
MW-81	12/28/2010	3817.03	193.88	0.26	3623.34
MW-81	6/30/2011	3817.03	194.10	1.23	3623.83
MW-81	12/15/2011	3817.03	194.85	0.3	3622.40
MW-81	6/27/2012	3817.03	195.21	0.32	3622.05
MW-81	12/1/2012	3817.03	195.61	0.29	3621.63
MW-81	6/1/2013	3817.03	196.13	0.2	3621.05
MW-81	12/12/2013	3817.03	194.77	0.23	3622.43
MW-81	6/25/2014	3817.03	195.45	0.24	3621.76
MW-81	12/16/2014	3817.03	183.04	0	3633.99
MW-81	4/28/2015	3817.03	193.71	0	3623.32
MW-81	10/13/2015	3817.03	189.27	0	3627.76
MW-81	5/24/2016	3817.03	194.25	0.001	3622.78
MW-81	12/6/2016	3817.03	193.80	0.001	3623.23
MW-81	7/12/2017	3817.03	195.00	0.73	3622.56
MW-81	12/17/2017	3817.03	193.76	0.001	3623.27
MW-81	7/8/2018	3817.03	192.53	0.001	3624.50
MW-81	11/13/2018	3817.03	193.89	0.001	3623.14
MW-81	6/24/2019	3817.03	194.48	0.69	3623.05
MW-81	12/10/2019	3817.03	193.50	0.45	3623.86
MW-81	6/10/2020	3817.03	193.62	-0.15	3623.30
MW-81	11/2/2020	3817.03	193.64	0.04	3623.42
MW-81	6/22/2021	3817.03	190.85	0.04	3626.21
MW-81	12/6/2021	3817.03	189.56	0.09	3627.54
<b>MW-88</b>	<b>8/1/1996</b>	<b>3789.70</b>	<b>163.59</b>	<b>0</b>	<b>3626.11</b>
MW-88	10/13/1996	3789.70	162.22	0	3627.48
MW-88	2/4/1997	3789.70	163.38	0	3626.32
MW-88	4/28/1997	3789.70	163.54	0	3626.16
MW-88	7/14/1997	3789.70	163.84	0	3625.86
MW-88	10/1/1997	3789.70	164.40	0	3625.30
MW-88	10/9/1997	3789.70	164.38	0	3625.32
MW-88	10/13/1997	3789.70	164.34	0	3625.36
MW-88	1/27/1998	3789.70	164.41	0	3625.29
MW-88	4/27/1998	3789.70	164.84	0	3624.86
MW-88	5/28/1998	3789.70	164.00	0	3625.70
MW-88	6/15/1998	3789.70	164.87	0	3624.83
MW-88	10/10/1998	3789.70	165.38	0	3624.32
MW-88	1/27/1999	3789.70	165.49	0	3624.21
MW-88	4/19/1999	3789.70	165.54	0	3624.16
MW-88	1/5/2000	3789.70	165.62	0	3624.08
MW-88	4/26/2000	3789.70	165.87	0	3623.83
MW-88	9/27/2000	3789.70	166.25	0	3623.45

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**Appendix A**

Historic Fluid Level Data

May 1991 - December 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-88	4/16/2001	3789.70	166.21	0	3623.49
MW-88	10/29/2001	3789.70	166.49	0	3623.21
MW-88	4/15/2002	3789.70	166.53	0	3623.17
MW-88	10/14/2002	3789.70	165.52	0	3624.18
MW-88	04/15/2003	3789.70	165.98	0	3623.72
MW-88	10/14/2003	3789.70	166.89	0	3622.81
MW-88	4/5/2004	3789.70	167.15	0	3622.55
MW-88	10/5/2004	3789.70	163.52	0	3626.18
MW-88	4/19/2005	3789.70	166.38	0	3623.32
MW-88	10/24/2005	3789.70	165.67	0	3624.03
MW-88	4/18/2006	3789.70	166.15	0	3623.55
MW-88	10/11/2006	3789.70	165.49	0	3624.21
MW-88	4/16/2007	3789.7	166.11	0	3623.59
MW-88	10/22/2007	3789.70	165.92	0	3623.78
MW-88	5/27/2009	3789.70	166.91	0	3622.79
MW-88	6/21/2010	3789.70	167.28	0	3622.42
MW-88	12/28/2010	3789.70	166.92	0	3622.78
MW-88	6/30/2011	3789.70	167.45	0	3622.25
MW-88	12/15/2011	3789.70	167.81	0	3621.89
MW-88	6/27/2012	3789.70	169.00	0	3620.70
MW-88	12/1/2012	3789.70	168.65	0	3621.05
MW-88	6/1/2013	3789.70	168.96	0	3620.74
MW-88	12/12/2013	3789.70	167.90	0	3621.80
MW-88	6/25/2014	3789.70	178.46	0	3611.24
MW-88	12/16/2014	3789.70	166.55	0	3623.15
MW-88	4/28/2015	3789.70	167.16	0	3622.54
MW-88	10/13/2015	3789.70	167.38	0	3622.32
MW-88	5/24/2016	3789.70	167.77	0	3621.93
MW-88	12/6/2016	3789.70	167.37	0	3622.33
MW-88	7/12/2017	3789.70	167.68	0	3622.02
MW-88	12/17/2017	3789.70	167.20	0	3622.50
MW-88	7/8/2018	3789.70	167.54	0	3622.16
MW-88	11/13/2018	3789.70	167.30	0	3622.40
MW-88	6/24/2019	3789.70	167.14	0	3622.56
MW-88	12/10/2019	3789.70	166.49	0	3623.21
MW-88	6/10/2020	3789.70	166.58	0	3623.12
MW-88	11/2/2020	3789.70	167.06	0	3622.64
MW-88	6/22/2021	3789.70	167.28	0	3622.42
MW-88	12/6/2021	3789.70	163.56	0	3626.14
<b>MW-111</b>	<b>6/19/1998</b>	<b>3824.44</b>	<b>200.24</b>	<b>0</b>	<b>3624.20</b>
MW-111	10/10/1998	3824.44	200.89	0	3623.55
MW-111	1/27/1999	3824.44	201.24	0	3623.20
MW-111	4/19/1999	3824.44	201.26	0	3623.18
MW-111	1/5/2000	3824.44	201.21	0	3623.23
MW-111	4/26/2000	3824.44	201.48	0	3622.96
MW-111	9/27/2000	3824.44	201.66	0	3622.78
MW-111	4/16/2001	3824.44	201.74	0	3622.70
MW-111	10/29/2001	3824.44	201.64	0	3622.80
MW-111	4/15/2002	3824.44	201.83	0	3622.61
MW-111	10/14/2002	3824.44	200.52	0	3623.92
MW-111	04/15/2003	3824.44	201.21	0	3623.23

D = Dry  
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 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-111	10/14/2003	3824.44	202.50	0	3621.94
MW-111	4/5/2004	3824.44	202.54	0	3621.90
MW-111	10/5/2004	3824.44	200.25	0	3624.19
MW-111	4/19/2005	3824.44	201.09	0	3623.35
MW-111	10/24/2005	3824.44	200.61	0	3623.83
MW-111	4/18/2006	3824.44	201.17	0	3623.27
MW-111	10/11/2006	3824.44	200.06	0	3624.38
MW-111	4/16/2007	3824.44	201.28	0	3623.16
MW-111	10/22/2007	3824.44	201.24	0	3623.20
MW-111	5/27/2009	3824.44	202.50	0	3621.94
MW-111	6/21/2010	3824.44	202.92	0	3621.52
MW-111	12/28/2010	3824.44	202.48	0	3621.96
MW-111	6/30/2011	3824.44	202.94	0	3621.50
MW-111	12/15/2011	3824.44	203.51	0	3620.93
MW-111	6/27/2012	3824.44	204.58	0	3619.86
MW-111	12/1/2012	3824.44	204.20	0	3620.24
MW-111	6/1/2013	3824.44	204.58	0	3619.86
MW-111	12/12/2013	3824.44	202.99	0	3621.45
MW-111	6/25/2014	3824.44	204.10	0	3620.34
MW-111	12/16/2014	3824.44	201.65	0	3622.79
MW-111	4/28/2015	3824.44	202.64	0	3621.80
MW-111	10/13/2015	3824.44	202.92	0	3621.52
MW-111	5/24/2016	3824.44	203.21	0	3621.23
MW-111	12/6/2016	3824.44	202.95	0	3621.49
MW-111	7/12/2017	3824.44	203.34	0	3621.10
MW-111	12/17/2017	3824.44	202.95	0	3621.49
MW-111	7/8/2018	3824.44	203.27	0	3621.17
MW-111	11/13/2018	3824.44	203.14	0	3621.30
MW-111	6/24/2019	3824.44	203.20	0	3621.24
MW-111	12/10/2019	3824.44	203.85	0	3620.59
MW-111	6/10/2020	3824.44	202.15	0	3622.29
MW-111	11/2/2020	3824.44	202.62	0	3621.82
MW-111	6/22/2021	3824.44	202.92	0	3621.52
MW-111	12/6/2021	3824.44	198.32	0	3626.12
<b>MW-113</b>	<b>1/5/2000</b>	<b>3772.67</b>	<b>147.43</b>	<b>0</b>	<b>3625.24</b>
MW-113	4/26/2000	3772.67	148.28	0.88	3625.03
MW-113	9/27/2000	3772.67	147.72	0	3624.95
MW-113	4/16/2001	3772.67	148.11	0.13	3624.65
MW-113	10/29/2001	3772.67	148.95	0.2	3623.87
MW-113	4/15/2002	3772.67	148.72	0.14	3624.05
MW-113	10/14/2002	3772.67	147.33	0	3625.34
MW-113	04/15/2003	3772.67	148.69	0.53	3624.37
MW-113	10/14/2003	3772.67	149.24	0.21	3623.58
MW-113	4/5/2004	3772.67	142.42	0.2	3630.40
MW-113	10/5/2004	3772.67	144.58	0	3628.09
MW-113	4/19/2005	3772.67	147.90	0	3624.77
MW-113	10/24/2005	3772.67	147.51	0	3625.16
MW-113	4/18/2006	3772.67	148.21	0	3624.46
MW-113	10/11/2006	3772.67	147.29	0	3625.38
MW-113	4/17/2007	3772.67	148.61	0.31	3623.83
MW-113	10/22/2007	3772.67	NA	--	--

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-113	5/27/2009	3772.67	149.10	T	3623.57
MW-113	6/21/2010	3772.67	149.47	0.05	3623.16
MW-113	12/28/2010	3772.67	149.09	0.04	3623.55
MW-113	6/30/2011	3772.67	149.55	0.05	3623.08
MW-113	12/15/2011	3772.67	150.10	0.04	3622.54
MW-113	6/27/2012	3772.67	150.34	0.14	3622.23
MW-113	12/1/2012	3772.67	150.87	0.81	3622.39
MW-113	6/1/2013	3772.67	151.07	0.79	3622.18
MW-113	12/12/2013	3772.67	150.03	0	3622.64
MW-113	6/25/2014	3772.67	150.51	0.01	3622.15
MW-113	12/16/2014	3772.67	148.65	0	3624.02
MW-113	4/28/2015	3772.67	149.34	0	3623.33
MW-113	10/13/2015	3772.67	149.42	0	3623.25
MW-113	5/24/2016	3772.67	149.97	0.001	3622.70
MW-113	12/6/2016	3772.67	149.41	0.001	3623.26
MW-113	7/12/2017	3772.67	149.80	0.001	3622.87
MW-113	12/17/2017	3772.67	149.31	0.001	3623.36
MW-113	7/8/2018	3772.67	149.62	0.001	3623.05
MW-113	11/13/2018	3772.67	149.30	0.001	3623.37
MW-113	6/24/2019	3772.67	149.22	0	3623.45
MW-113	12/10/2019	3772.67	148.62	0	3624.05
MW-113	6/10/2020	3772.67	149.74	0	3622.93
MW-113	11/2/2020	3772.67	149.52	0	3623.15
MW-113	6/22/2021	3772.67	149.36	0	3623.31
MW-113	12/6/2021	3772.67	145.50	0.01	3627.16
<b>MW-127</b>	<b>1/5/2000</b>	<b>3825.17</b>	<b>202.12</b>	<b>0</b>	<b>3623.05</b>
MW-127	4/26/2000	3825.17	202.34	0.46	3623.17
MW-127	9/27/2000	3825.17	202.00	0	3623.17
MW-127	4/16/2001	3825.17	202.70	0.07	3622.52
MW-127	10/29/2001	3825.17	202.51	0.03	3622.68
MW-127	4/15/2002	3825.17	202.74	0	3622.43
MW-127	10/14/2002	3825.17	200.92	0	3624.25
MW-127	04/15/2003	3825.17	202.50	0	3622.67
MW-127	10/14/2003	3825.17	202.99	0	3622.18
MW-127	4/5/2004	3825.17	203.15	0	3622.02
MW-127	10/5/2004	3825.17	200.48	0	3624.69
MW-127	4/19/2005	3825.17	201.81	0	3623.36
MW-127	10/24/2005	3825.17	201.00	0	3624.17
MW-127	4/18/2006	3825.17	201.80	0	3623.37
MW-127	10/11/2006	3825.17	200.66	0	3624.51
MW-127	4/17/2007	3825.17	202.3	0	3622.87
MW-127	10/22/2007	3825.17	201.97	0	3623.20
MW-127	5/27/2009	3825.17	203.10	0	3622.07
MW-127	6/21/2010	3825.17	203.46	0	3621.71
MW-127	12/28/2010	3825.17	202.88	0	3622.29
MW-127	6/30/2011	3825.17	203.27	0	3621.90
MW-127	12/15/2011	3825.17	203.87	0	3621.30
MW-127	6/27/2012	3825.17	204.95	0	3620.22
MW-127	12/1/2012	3825.17	204.14	0	3621.03
MW-127	6/1/2013	3825.17	204.95	0	3620.22
MW-127	12/12/2013	3825.17	203.39	0	3621.78

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-127	6/25/2014	3825.17	204.47	0	3620.70
MW-127	12/16/2014	3825.17	202.08	0	3623.09
MW-127	4/28/2015	3825.17	203.03	0	3622.14
MW-127	10/13/2015	3825.17	203.13	0	3622.04
MW-127	5/24/2016	3825.17	203.56	0	3621.61
MW-127	12/6/2016	3825.17	203.26	0	3621.91
MW-127	7/12/2017	3825.17	203.70	0	3621.47
MW-127	12/17/2017	3825.17	203.27	0	3621.90
MW-127	7/8/2018	3825.17	203.63	0	3621.54
MW-127	11/13/2018	3825.17	203.30	0	3621.87
MW-127	6/24/2019	3825.17	208.23	0	3616.94
MW-127	12/10/2019	3825.17	202.18	0	3622.99
MW-127	6/10/2020	3825.17	202.39	0	3622.78
MW-127	11/2/2020	3825.17	202.76	0	3622.41
MW-127	6/22/2021	3825.17	203.25	0	3621.92
MW-127	12/6/2021	3825.17	198.71	0	3626.46

Notes:

\* MW-77 DTW does not agree with historical data.

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

# APPENDIX B

## Historical Analytical Data



**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
<b>MW-14</b>	<b>09/01/91</b>	<b>5100</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-14	06/22/98	820	<10	840	<10
MW-14	04/18/02	116	9	<5	<5
MW-14	10/16/02	23	<5	5	<5
MW-14	04/09/03	<5	<5	<5	<5
MW-14	10/24/03	330	<5	<5	<5
MW-14		Not Sampled - Condensate Present			
MW-14	04/25/05	174	<5	<5	<15
MW-14	04/27/06	31.9	<2.74	<2.03	<5.81
MW-14	04/20/07	30	<5	<5	<15
MW-14	05/27/09	1.1	<1	1.1	17
MW-14	06/23/10	1.1	<1	2.9	19.4
MW-14	06/30/11	Not Sampled - not enough water to collect sample			
MW-14	06/28/12	Not Sampled - not enough water to collect sample			
MW-14	06/28/13	Not Sampled - not enough water to collect sample			
MW-14	06/26/14	2.6	<1	<1	<3
MW-14	04/30/15	2.6	<1	<1	<3
MW-14	05/25/16	<1	<1	<1	<3
MW-14	07/12/17	<1	<1	<1	<3
MW-14	06/13/18	Not Sampled - not enough water to collect sample			
MW-14	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-14	06/10/20	<0.56	1.58	<1.29	<1.98
MW-14	06/22/21	Not Sampled - not enough water to collect sample			
<b>MW-45</b>	<b>06/01/91</b>	<b>&lt;1</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-45	06/22/91	--	<1	<1	<1
MW-45	09/01/91	<1	--	--	--
MW-45	12/01/91	<1	<1	<1	<1
MW-45	07/15/93	<3	6	7	4
MW-45	10/14/93	<3	3	<3	3
MW-45	01/13/94	<0.5	<0.5	<0.5	<0.5
MW-45	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-45	07/20/94	<0.5	<0.5	<0.5	<0.5
MW-45	05/29/09	<1	<1	<1	1.7
MW-45	06/23/10	<1	<1	<1	<1
MW-45	07/01/11	<1	<1	<1	<3
MW-45	06/28/12	28.7	<1	0.57	<3
MW-45	06/28/13	Not Sampled - not enough water to collect sample			
MW-45	06/26/14	<1	<1	<1	<3
MW-45	04/30/15	<1	<1	<1	<3
MW-45	05/25/16	<1	<1	<1	<3
MW-45	07/13/17	<1	<1	<1	<3
MW-45	06/13/18	<1	<1	<1	<1
MW-45	06/24/19	<0.56	<0.55	<1.29	<1.98
MW-45	06/10/20	<0.56	0.934	<1.29	<1.98
MW-45	06/22/21	<2.0	<2.0	<2.0	<4.0
<b>MW-46</b>	<b>06/01/91</b>	<b>3200</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-46	06/22/91	--	<50	900	<50
MW-46	07/01/91	300	--	--	--
MW-46	07/19/91	--	<50	250	--
MW-46	07/30/91	--	--	--	250
MW-46	09/01/91	140	--	--	59
MW-46	10/01/96	900	33	440	59
MW-46	02/11/97	3300	550	1000	1400
MW-46	05/29/97	5000	1200	230	<100
MW-46	07/18/97	6100	1900	270	130
MW-46	04/30/98	1600	41	140	290
MW-46	07/01/98	1700	<5	97	120
MW-46	04/20/99	210	<5	11	20
MW-46	12/08/99	50	43	34	129

Notes:  
 Concentrations listed in micrograms per liter (µg/L)  
 <5 Constituent not detected above noted laboratory detection limit  
 -- Indicates parameter was not analyzed

**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-46	04/28/00	17	<1	<1	<1
MW-46	10/02/00	12	39	19	128
MW-46	04/19/01	<5	<5	<5	<10
MW-46	10/31/01	<100	<100	<100	<200
MW-46	04/17/02	<5	<5	<5	<5
MW-46	10/16/02	14	<5	<5	<5
MW-46	04/09/03	<5	<5	<5	<5
MW-46		Not Sampled - Dry			
MW-46	04/08/04	10	<5	<5	<5
MW-46	04/27/05	<5	<5	<5	<15
MW-46		Not Sampled - Dry			
MW-46	04/23/07	81.4	<5	<5	<15
MW-46	05/27/09	<1	<1	<1	1.1
MW-46	06/23/10	<1	<1	<1	<1
MW-46	06/30/11	Not Sampled - not enough water to collect sample			
MW-46	06/28/12	Not Sampled - not enough water to collect sample			
MW-46	06/28/13	Not Sampled - not enough water to collect sample			
MW-46	06/26/14	220	<1	32.9	68.2
MW-46	04/30/15	Not Sampled - not enough water to collect sample			
MW-46	07/13/17	Not Sampled - not enough water to collect sample			
MW-46	06/13/18	Not Sampled - not enough water to collect sample			
MW-46	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-46	06/10/20	<0.56	1.18	<1.29	<1.98
MW-46	06/22/21	Not Sampled - not enough water to collect sample			
<b>MW-49</b>	<b>06/01/91</b>	<b>60</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-49	06/22/91	--	<10	60	40
MW-49	09/01/91	35	--	--	--
MW-49	07/15/93	210	27	42	30
MW-49	10/14/93	68	26	9	20
MW-49	01/13/94	13	<5	15	110
MW-49	04/06/94	82	<0.5	11	10
MW-49	07/20/94	150	<5	32	27
MW-49	10/05/94	78	49	40	300
MW-49	01/11/95	220	<5	46	97
MW-49	04/06/95	120	<0.5	24	26
MW-49	07/21/95	17	<0.5	3.5	3.4
MW-49	10/12/95	240	<50	59	130
MW-49	01/20/96	160	130	120	570
MW-49	04/19/96	87	23	18	32
MW-49	07/01/96	370	220	190	630
MW-49	10/01/96	95	16	36	12
MW-49	02/07/97	79	66	45	160
MW-49	07/18/97	130	<1	35	9.8
MW-49	04/30/98	130	39	41	69
MW-49	07/01/98	78	<1	15	<1
MW-49	04/20/99	81	<5	32	<10
MW-49	12/08/99	32	68	58	380
MW-49	04/27/00	24	<1	12	<1
MW-49	10/02/00	35	38	18	107
MW-49	04/17/01	21	36	16	117
MW-49	10/31/01	21	<5	<5	<10
MW-49	04/17/02	19	<5	<5	<5
MW-49	10/16/02	31	<5	<5	<5
MW-49	04/08/03	71	<5	<5	<5
MW-49	10/28/03	97	<5	<5	<5
MW-49	04/08/04	76	<5	<5	<5
MW-49	04/25/05	<5	<5	<5	<15
MW-49	04/26/06	23	<2.74	<2.03	<5.81
MW-49	04/20/07	26	<5	<5	<15
MW-49	05/28/09	37	<1	<1	1.2
MW-49	06/23/10	24	<1	<1	<1
MW-49	07/01/11	48	<1	<1	<3

Notes:  
 Concentrations listed in micrograms per liter (ug/L)  
 <5 Constituent not detected above noted laboratory detection limit  
 -- Indicates parameter was not analyzed

**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (ug/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-49	06/28/12	<1	<1	<1	<3
MW-49	06/28/13	34.1	<1	<1	<3
MW-49	06/26/14	44.1	<1	<1	<3
MW-49	04/30/15	1.3	<1	<1	<3
MW-49	05/25/16	13.4	<1	<1	<3
MW-49	07/12/17	13.6	<1	0.38 J	<3
MW-49	06/13/18	20.8	<1	<1	<1
MW-49	06/24/19	11.5	<0.55	<1.29	<1.98
MW-49	06/10/20	15.4	1.02	<1.29	<1.98
MW-49	06/22/21	<20	<20	<20	<40
<b>MW-58</b>	<b>09/01/91</b>	<b>40</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-58	12/01/91	90	40	20	80
MW-58	04/01/92	203	32	56	68
MW-58	07/01/92	178	58	32	44
MW-58	10/01/92	190	49	26	57
MW-58	01/01/93	192	30	23	39
MW-58	04/13/93	55	16	31	9
MW-58	07/13/93	25	42	14	13
MW-58	10/13/93	50	21	212	555
MW-58	04/05/94	<2.5	<2.5	7.4	27
MW-58	07/19/94	2	29	4.5	27
MW-58	10/06/94	6.7	<5	15	39
MW-58	04/08/95	2.2	<0.5	2.1	6.8
MW-58	10/01/96	110	320	940	10000
MW-58	01/30/98	350	23	42	96
MW-58	06/22/98	22	<1	28	35
MW-58	06/28/13		Not Sampled - Condensate Present		
MW-58	06/28/14		Not Sampled - Condensate Present		
MW-58	04/30/15		Not Sampled - Condensate Present		
MW-58	07/13/17		Not Sampled - Condensate Present		
MW-58	06/13/18		Not Sampled - Condensate Present		
MW-58	06/25/19		Not Sampled - Condensate Present		
MW-58	06/10/20		Not Sampled - Condensate Present		
MW-58	06/22/21		Not Sampled - Condensate Present		
<b>MW-66</b>	<b>09/01/91</b>	<b>&lt;1</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-66	12/01/91	<1	<1	<1	<1
MW-66	04/01/92	4	7	<3	4
MW-66	07/01/92	8	25	7	11
MW-66	10/01/92	12	36	<3	34
MW-66	01/01/93	3	6	3	20
MW-66	04/13/93	<3	5	5	<3
MW-66	07/13/93	8	4	<3	<3
MW-66	10/12/93	13	60	4	29
MW-66	11/10/93	<4	<4	<4	<4
MW-66	01/11/94	<0.5	<0.5	<0.5	0.6
MW-66	04/07/94	<0.5	<0.5	<0.5	<0.5
MW-66	07/19/94	<0.5	0.6	<0.5	0.8
MW-66	10/04/94	<0.5	3	1.5	17
MW-66	01/09/95	<0.5	<0.5	<0.5	<0.5
MW-66	04/11/95	<0.5	<0.5	<0.5	<0.5
MW-66	07/19/95	<0.5	0.9	<0.5	<0.5
MW-66	10/10/95	<0.5	<0.5	<0.5	3.5
MW-66	01/19/96	<0.5	<0.5	<0.5	<0.5
MW-66	04/17/96	<0.5	0.8	<0.5	1
MW-66	07/01/96	<0.5	<0.5	<0.5	0.5
MW-66	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-66	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-66	05/06/97	<0.5	<0.5	<0.5	<0.5
MW-66	07/16/97	<0.5	<0.5	<0.5	<0.5
MW-66	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-66	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-66	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-66	06/17/98	<1	1.6	<1	<1
MW-66	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-66	02/01/99	<0.5	<0.5	<0.5	<0.5

Notes:  
 Concentrations listed in micrograms per liter (ug/L)  
 <5 Constituent not detected above noted laboratory detection limit  
 -- Indicates parameter was not analyzed

**Appendix B**  
Historical BTEX Analytical Data, May 1991 - June 2021  
OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (ug/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-66	04/21/99	<5	<5	<5	<10

Notes:  
Concentrations listed in micrograms per liter (ug/L)  
<5 Constituent not detected above noted laboratory detection limit  
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**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-66	12/10/99	<5	<5	<5	<10
MW-66	04/27/00	<1	<1	<1	<1
MW-66	10/05/00	<5	<5	<5	<10
MW-66	04/18/01	<5	<5	<5	<15
MW-66	11/01/01	<5	<5	<5	<10
MW-66	04/19/02	<5	<5	<5	<5
MW-66	10/16/02	<5	<5	<5	<5
MW-66	04/08/03	<5	<5	<5	<5
MW-66	10/22/03	<5	<5	<5	<5
MW-66	04/06/04	<5	<5	<5	<5
MW-66	04/21/05	<5	<5	<5	<15
MW-66	04/19/06	<2.57	<2.74	<2.03	<5.81
MW-66	04/18/07	<5	<5	<5	<15
MW-66	05/27/09	<1	<1	<1	<1
MW-66	06/22/10	<1	<1	<1	<1
MW-66	06/30/11	<1	<1	<1	<3
MW-66	06/28/12	<1	<1	<1	<3
MW-66	06/28/13	<1	17.9	<1	<3
MW-66	06/27/14	<1	<1	<1	<3
MW-66	04/29/15	<1	<1	<1	<3
MW-66	05/24/16	<1	<1	<1	<3
MW-66	07/13/17	<1	<1	<1	<3
DUP-1	07/13/17	<1	<1	<1	<3
MW-66	06/12/18	<1	0.38 J	<1	<1
MW-66	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-66	06/09/20	<0.56	<0.55	<1.29	<1.98
MW-66	06/22/21	<2.0	<2.0	<2.0	<4.0
<b>MW-70</b>	<b>09/01/91</b>	<b>&lt;1</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-70	12/01/91	<1	<1	<1	<1
MW-70	04/01/92	3	17	<3	8
MW-70	07/01/92	<1	3	1	13
MW-70	10/01/92	11	40	63	60
MW-70	01/01/93	<3	<3	8	5
MW-70	04/14/93	9	20	<3	4
MW-70	07/13/93	<1	11	3	<3
MW-70	10/12/93	25	19	19	18
MW-70	11/10/93	<4	<4	<4	40
MW-70	01/11/94	<0.5	0.6	<0.5	<0.5
MW-70	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-70	07/18/94	<0.5	<0.5	<0.5	<0.5
MW-70	10/04/94	1.2	4.3	1.3	12
MW-70	01/09/95	<0.5	2.3	<0.5	2.4
MW-70	04/05/95	<0.5	<0.5	<0.5	1.1
MW-70	07/18/95	<0.5	0.8	<0.5	<0.5
MW-70	10/10/95	<0.5	<0.5	<0.5	<0.5
MW-70	01/18/96	<0.5	<0.5	<0.5	<0.5
MW-70	04/17/96	<0.5	<0.5	<0.5	<0.5
MW-70	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-70	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-70	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-70	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-70	06/16/98	<1	<1	<1	<1
MW-70	04/22/99	<5	<5	<5	<10
MW-70	04/28/00	<1	<1	<1	<1
MW-70	10/03/00	<5	<5	<5	<10
MW-70	04/24/01	<5	<5	<5	<15
MW-70	04/18/02	<5	<5	<5	<5
MW-70	04/06/03	<5	<5	<5	<5
MW-70	04/12/04	<5	<5	<5	<5
MW-70	04/26/05	<5	<5	<5	<15
MW-70	04/20/06	<2.57	<2.74	<2.03	<5.81
MW-70	04/24/07	<5	<5	<5	<15
MW-70	05/27/09	<1	<1	<1	<1
MW-70	06/23/10	<1	<1	<1	<1

Notes:

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**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (ug/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-70	06/30/11	<1	<1	<1	<3
MW-70	06/28/12	<1	<1	<1	<3
MW-70	06/28/13	<1	1.5	<1	<3
MW-70	06/27/14	NS - Well not accessible due to flooding			
MW-70	04/29/15	<1	<1	<1	<3
MW-70	05/24/16	<1	<1	<1	<3
MW-70	07/13/17	<1	<1	<1	<3
MW-70	06/13/18	<1	<1	<1	<1
MW-70	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-70	06/09/20	<0.56	0.837	<1.29	<1.98
MW-70	06/22/21	7.1	5.7	<2	<4
<b>MW-77</b>	<b>07/21/95</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>1.9</b>	<b>2.8</b>
MW-77	01/20/96	<0.5	3.1	<0.5	7.1
MW-77	04/19/96	<0.5	3.8	0.8	2.5
MW-77	07/01/96	8	14	19	35
MW-77	10/01/96	160	320	150	1000
MW-77	05/07/97	8.4	70	8.3	52
MW-77	07/18/97	14	30	11	71
MW-77	12/09/99	<5	<5	<5	<10
MW-77	10/03/00	<5	<5	<5	24
MW-77		Not Sampled - Condensate Present			
MW-77		Not Sampled - Dry			
MW-77	10/21/02	<5	<5	<5	<5
MW-77	04/10/03	<5	<5	<5	<5
MW-77	10/24/03	<5	<5	<5	<5
MW-77	04/07/04	<5	<5	<5	<5
MW-77	04/27/05	<5	<5	<5	<15
MW-77	04/26/06	<2.57	<2.74	<2.03	<5.81
MW-77	04/18/07	<5	<5	<5	<15
MW-77	06/23/10	<1	<1	<1	<1
MW-77	06/30/11	<1	<1	<1	<3
MW-77	06/28/12	Not Sampled - not enough water to collect sample			
MW-77	06/28/13	Not Sampled - not enough water to collect sample			
MW-77	06/26/14	<1	<1	<1	<3
MW-77	04/30/15	Not Sampled - not enough water to collect sample			
MW-77	07/13/17	Not Sampled - not enough water to collect sample			
MW-77	06/13/18	Not Sampled - not enough water to collect sample			
MW-77	06/25/19	Not Sampled - not enough water to collect sample			
MW-77	06/10/20	Not Sampled - not enough water to collect sample			
MW-77	06/22/21	Not Sampled - not enough water to collect sample			
<b>MW-81</b>	<b>06/29/98</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>1.5</b>
MW-81	06/26/14	Not Sampled - Condensate Present			
MW-81	04/30/15	Not Sampled - Condensate Present			
MW-81	05/24/16	Not Sampled - Condensate Present			
MW-81	07/13/17	Not Sampled - Condensate Present			
MW-81	06/13/18	Not Sampled - Condensate Present			
MW-81	06/25/19	Not Sampled - Condensate Present			
MW-81	06/10/20	Not Sampled - Condensate Present			
MW-81	06/22/21	Not Sampled - Condensate Present			
<b>MW-88</b>	<b>08/01/96</b>	<b>&lt;0.5</b>	<b>1.1</b>	<b>0.5</b>	<b>1</b>
MW-88	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-88	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-88	04/30/97	<0.5	<0.5	<0.5	<0.5
MW-88	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-88	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-88	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-88	06/27/98	<1	<1	<1	<1
MW-88	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-88	02/01/99	1.6	1.8	1.6	4.8
MW-88	04/21/99	<5	<5	<5	<10
MW-88	12/10/99	<5	<5	<5	<10
MW-88	04/28/00	<1	<1	<1	<1
MW-88	10/02/00	<5	<5	<5	<5
MW-88	04/17/01	<5	<5	<5	<15

Notes:  
 Concentrations listed in micrograms per liter (ug/L)  
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**Appendix B**  
Historical BTEX Analytical Data, May 1991 - June 2021  
OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (ug/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-88	10/31/01	<5	<5	<5	<10
MW-88	04/19/02	<5	<5	<5	<5
MW-88	10/16/02	<5	<5	<5	<5

Notes:

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**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-88	04/08/03	<5	<5	<5	<5
MW-88	10/21/03	<5	<5	<5	<5
MW-88	04/06/04	<5	<5	<5	<5
MW-88	04/21/05	<5	<5	<5	<15
MW-88	04/20/06	<2.57	<2.74	<2.03	<5.81
MW-88	04/19/07	<5	<5	<5	<15
MW-88	05/27/09	<1	<1	<1	<1
MW-88	06/22/10	<1	<1	<1	<1
MW-88	06/30/11	<1	<1	<1	<3
MW-88	06/28/12	<1	<1	<1	<3
MW-88	06/28/13	<1	5.3	<1	<3
MW-88	06/26/14	<1	<1	<1	<3
MW-88	04/29/15	<1	<1	<1	<3
MW-88	05/24/16	<1	<1	<1	<3
MW-88	07/13/17	<1	<1	<1	<3
MW-88	06/13/18	<1	<1	<1	<1
MW-88	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-88	06/09/20	<0.56	0.704	<1.29	<1.98
MW-88	06/22/21	<40	<40	<40	<80
<b>MW-106</b>	<b>02/11/97</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
MW-106	05/07/97	<0.5	<0.5	<0.5	<0.5
MW-106	07/18/97	<0.5	<0.5	<0.5	<0.5
MW-106	04/30/98	<0.5	<0.5	<0.5	<0.5
MW-106	06/28/98	<1	<1	<1	<1
MW-106	04/29/99	<5	<5	<5	<10
MW-106	12/08/99	<5	<5	<5	<10
MW-106	05/01/00	<1	<1	<1	<1
MW-106	10/02/00	<5	<5	<5	<10
MW-106	04/18/01	<5	9.4	<5	<15
MW-106	10/31/01	<5	<5	<5	<10
MW-106	04/17/02	<5	<5	<5	<5
MW-106	10/16/02	<5	7	<5	<5
MW-106	04/09/03	<5	<5	<5	<5
MW-106	10/21/03	<5	<5	<5	<5
MW-106	04/05/04	<5	<5	<5	<5
MW-106	04/20/05	<5	<5	<5	<15
MW-106	04/19/06	<2.57	<2.74	<2.03	<5.81
MW-106	04/18/07	<5	<5	<5	<15
MW-106	06/23/10	<1	<1	<1	<1
MW-106	06/30/11	<1	<1	<1	<3
MW-106	06/28/12	<1	<1	<1	<3
MW-106	06/28/13	<1	1.8	<1	<3
MW-106	06/26/14	<1	<1	<1	<3
MW-106	04/30/15	<1	<1	<1	<3
MW-106	05/23/16	<1	<1	<1	<3
MW-106	07/13/17	<1	<1	<1	<3
MW-106	06/13/18	<1	<1	<1	<1
MW-106	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-106	06/09/20	<0.56	0.813	<1.29	<1.98
MW-106	06/22/21	<2.0	<2.0	<2.0	<4.0
<b>MW-111</b>	<b>06/29/98</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>
MW-111	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-111	02/01/99	<0.5	0.8	<0.5	<0.5
MW-111	04/21/99	<5	<5	<5	<10
MW-111	12/13/99	<5	<5	<5	<10
MW-111	04/27/00	<1	<1	<1	<1
MW-111	10/05/00	<5	<5	<5	<10
MW-111	04/18/01	<5	<5	<5	<15
MW-111	11/02/01	<5	<5	<5	<10
MW-111	04/19/02	<5	<5	<5	<5
MW-111	10/16/02	<5	<5	<5	<5
MW-111	04/07/03	<5	<5	<5	6
MW-111	10/22/03	<5	<5	<5	<5
MW-111	04/07/04	<5	<5	<5	5
MW-111	04/21/05	<5	<5	<5	<15

Notes:

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**Appendix B**  
Historical BTEX Analytical Data, May 1991 - June 2021  
OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (ug/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-111	04/19/06	<2.57	<2.74	<2.03	<5.81
MW-111	04/18/07	<5	<5	<5	<15

Notes:  
Concentrations listed in micrograms per liter (ug/L)  
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**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-111	05/27/09	<1	<1	<1	<1
MW-111	06/22/10	<1	<1	<1	<1
MW-111	06/30/11	<1	<1	<1	<3
MW-111	06/28/12	<1	<1	<1	<3
MW-111	06/28/13	<1	3.9	<1	<3
MW-111	06/27/14	<1	<1	<1	<3
MW-111	04/30/15	<1	<1	<1	<3
MW-111	05/24/16	<1	<1	<1	<3
MW-111	07/13/17	<1	<1	<1	<3
MW-111	06/13/18	<1	<1	<1	<1
MW-111	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-111	06/09/20	<0.56	<0.55	<1.29	<1.98
MW-111	06/22/21	<40	<40	<40	<80
<b>MW-113</b>	<b>08/11/99</b>	<b>140</b>	<b>&lt;5</b>	<b>59</b>	<b>390</b>
MW-113	06/27/14		NS - Condensate Present		
MW-113	04/30/15		NS - Condensate Present		
MW-113	07/13/17		NS - Condensate Present		
MW-113	06/13/18		NS - Condensate Present		
MW-113	06/25/19		NS - Condensate Present		
MW-113	06/10/20		NS - Condensate Present		
MW-113	06/22/21		NS - Condensate Present		
<b>MW-127</b>	<b>12/28/99</b>	<b>190</b>	<b>7.1</b>	<b>38</b>	<b>16</b>
MW-127	05/28/09	<1	<1	<1	1.4
MW-127	06/23/10	<1	<1	<1	2.2
MW-127	07/01/11	<1	<1	<1	<3
MW-127	06/28/12	<1	<1	<1	<3
MW-127	06/28/13	<1	2.8	0.48 J	<3
MW-127	06/26/14	<1	<1	<1	<3
MW-127	04/30/15	<1	<1	<1	<3
MW-127	05/24/16	<1	<1	<1	<3
MW-127	07/13/17	<1	<1	<1	<3
MW-127	06/14/18	<1	<1	<1	<1
MW-127	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-127	06/10/20	<0.56	0.927	<1.29	<1.98
MW-127 (DUP-1)	06/10/20	<0.56	0.569	<1.29	<1.98
MW-127	06/22/21	<20	<20	<20	<40

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Appendix B

Wet Chemistry, 1991 through 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)	
		Constituent	
		New Mexico Standards	Total Dissolved Solids (TDS) Chloride
		1,000	250
<b>MW-014</b>	<b>6/22/1998</b>	<b>1,400</b>	<b>330</b>
MW-014	4/18/2002	1,200	300
MW-014	10/24/2003	1,100	150
MW-014 (Dup 1)	10/24/2003	1,000	140
MW-014	4/25/2005	1,130	230
MW-014 (Dup 1)	4/25/2005	1,100	232
MW-014	4/27/2006	1,110	209
MW-014 (Dup 1)	4/27/2006	1,110	207
MW-014	4/20/2007	1,060	196
MW-014 (Dup 1)	4/20/2007	1,010	194
MW-014	6/25/2014	1,430	61.6
MW-014	4/30/2015	1,320	268
MW-014	5/25/2016	1,400	266
MW-014	7/12/2017	1,610	240
MW-014	6/25/2019	2,530	124
MW-014	6/10/2020	1,360	132
<b>MW-045</b>	<b>6/1/1991</b>	<b>5,440</b>	<b>507</b>
MW-045	9/1/1991	3,920	NA
MW-045	12/1/1991	NA	354
MW-045	7/15/1993	NA	434
MW-045	10/14/1993	NA	408
MW-045	1/13/1994	NA	440
MW-045	4/6/1994	NA	430
MW-045	7/20/1994	NA	429
MW-045	5/29/2009	2,540	174
MW-045	6/23/2010	4,190	473
MW-045	7/1/2011	3,630	208
MW-045	6/28/2012	3,840	314
MW-045	6/25/2014	4,120	98.7
MW-045	4/30/2015	5,990	209
MW-045	5/25/2016	5,400	238
MW-045 (Dup 1)	5/25/2016	5,340	245
MW-045	7/13/2017	5,620	308
MW-045	6/13/2018	5,090	256
MW-045	6/24/2019	5,500	177
MW-045 (Dup 1)	6/24/2019	5,300	127
MW-045	6/10/2020	5,230	150
MW-045	6/22/2021	5,750	497
<b>MW-046</b>	<b>6/1/1991</b>	<b>1,220</b>	<b>152</b>
MW-046	7/1/1991	NA	45
MW-046	10/1/1996	NA	170
MW-046	2/11/1997	NA	220
MW-046	5/29/1997	1,300	132
MW-046	7/18/1997	NA	180
MW-046	6/21/1998	940	140

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

Appendix B

Wet Chemistry, 1991 through 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

	Constituent	Wet Chemistry Analytical Data (mg/L)	
		Total Dissolved Solids (TDS)	Chloride
		New Mexico Standards	1,000
MW-046	4/20/1999	580	31
MW-046	4/28/2000	565	25.8
MW-046	4/19/2001	570	47
MW-046	4/17/2002	490	37
MW-046	4/8/2004	<u>2,300</u>	<u>340</u>
MW-046	4/27/2005	<u>1,090</u>	116
MW-046	4/23/2007	<u>1,770</u>	132
MW-046	6/25/2014	870	103
MW-046	6/25/2019	<u>3,880</u>	192
MW-046	6/25/2020	<u>1,630</u>	125
<b>MW-049</b>	<b>6/1/1991</b>	<b><u>3,910</u></b>	<b><u>365</u></b>
MW-049	6/25/1991	NA	NA
MW-049	7/15/1993	NA	<u>399</u>
MW-049	10/14/1993	NA	<u>397</u>
MW-049	1/13/1994	NA	<u>400</u>
MW-049	4/6/1994	NA	<u>380</u>
MW-049	7/20/1994	NA	<u>368</u>
MW-049	10/5/1994	NA	<u>380</u>
MW-049	1/11/1995	NA	<u>389</u>
MW-049	4/6/1995	NA	<u>390</u>
MW-049	7/21/1995	NA	<u>380</u>
MW-049	10/12/1995	NA	<u>350</u>
MW-049	1/20/1996	NA	<u>410</u>
MW-049	4/19/1996	NA	<u>400</u>
MW-049	7/1/1996	NA	<u>360</u>
MW-049	10/1/1996	NA	36
MW-049	2/7/1997	NA	<u>410</u>
MW-049	3/20/1997	<u>3,100</u>	NA
MW-049	7/18/1997	NA	<u>350</u>
MW-049	6/21/1998	<u>2,800</u>	<u>630</u>
MW-049	4/20/1999	<u>3,000</u>	<u>410</u>
MW-049	4/27/2000	<u>3,320</u>	<u>379</u>
MW-049	4/17/2001	<u>3,100</u>	<u>350</u>
MW-049	4/17/2002	<u>2,600</u>	<u>450</u>
MW-049	10/28/2003	<u>2,900</u>	<u>570</u>
MW-049	4/9/2004	<u>2,900</u>	<u>440</u>
MW-049 (Dup-1)	4/9/2004	<u>3,000</u>	<u>410</u>
MW-049	4/25/2005	<u>3,960</u>	<u>345</u>
MW-049	4/26/2006	<u>3,400</u>	<u>318</u>
MW-049	4/20/2007	<u>2,990</u>	<u>325</u>
MW-049	5/28/2009	<u>3,090</u>	<u>370</u>
MW-049	6/23/2010	<u>2,650</u>	<u>408</u>
MW-049	7/1/2011	<u>3,250</u>	<u>347</u>
MW-049	6/28/2012	<u>3,640</u>	<u>325</u>
MW-049	6/28/2013	<u>4,290</u>	<u>289</u>
MW-049	6/25/2014	<u>3,570</u>	<u>356</u>
MW-049	4/30/2015	<u>5,220</u>	<u>464</u>

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

Appendix B

Wet Chemistry, 1991 through 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

	Constituent	Wet Chemistry Analytical Data (mg/L)	
		Total Dissolved Solids (TDS)	Chloride
		New Mexico Standards	1,000
MW-049	5/25/2016	<u>4,900</u>	<u>379</u>
MW-049	7/12/2017	<u>4,390</u>	<u>355</u>
MW-049	6/13/2018	<u>3,780</u>	<u>314</u>
MW-049	6/24/2019	<u>3,540</u>	<u>285</u>
MW-049	6/10/2020	<u>4,000</u>	<u>491</u>
MW-049	6/22/2021	<u>3,360</u>	<u>316</u>
<b>MW-058</b>	<b>12/1/1991</b>	<b>NA</b>	<b>124</b>
MW-058	4/1/1992	NA	156
MW-058	7/1/1992	NA	149
MW-058	10/1/1992	NA	155
MW-058	1/1/1993	NA	175
MW-058	4/13/1993	NA	133
MW-058	7/13/1993	NA	133
MW-058	10/13/1993	NA	59
MW-058	4/5/1994	NA	48
MW-058	7/19/1994	NA	38
MW-058	10/6/1994	NA	36
MW-058	1/11/1995	NA	26
MW-058	4/8/1995	NA	39
MW-058	4/18/1996	NA	29
MW-058	10/1/1996	NA	38
MW-058	6/22/1998	760	42
MW-058	12/1/1991	NA	124
MW-058	4/1/1992	NA	156
MW-058	7/1/1992	NA	149
MW-058	10/1/1992	NA	155
MW-058	1/1/1993	NA	175
MW-058	4/13/1993	NA	133
MW-058	7/13/1993	NA	133
MW-058	10/13/1993	NA	59
MW-058	4/5/1994	NA	48
MW-058	7/19/1994	NA	38
MW-058	10/6/1994	NA	36
MW-058	1/11/1995	NA	26
MW-058	4/8/1995	NA	39
MW-058	4/18/1996	NA	29
MW-058	10/1/1996	NA	38
MW-058	6/22/1998	760	42
<b>MW-066</b>	<b>12/1/1991</b>	<b>NA</b>	<b>9</b>
MW-066	4/1/1992	NA	8
MW-066	7/1/1991	NA	8
MW-066	10/1/1992	NA	8
MW-066	1/1/1993	NA	12
MW-066	4/13/1993	NA	8
MW-066	7/13/1993	NA	15
MW-066	10/12/1993	NA	7
MW-066	1/1/1994	NA	9

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**  
 Wet Chemistry, 1991 through 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

	Constituent	Wet Chemistry Analytical Data (mg/L)	
		Total Dissolved Solids (TDS)	Chloride
		New Mexico Standards	1,000
MW-066	4/7/1994	NA	8.7
MW-066	7/19/1994	NA	<5
MW-066	104/94	NA	8.8
MW-066	1/9/1995	NA	6
MW-066	4/11/1995	NA	8.9
MW-066	7/19/1995	NA	8
MW-066	10/10/1995	NA	9
MW-066	1/19/1996	NA	10
MW-066	4/17/1996	NA	9.6
MW-066	7/1/1996	NA	6
MW-066	10/1/1996	NA	7
MW-066	2/5/1997	NA	9
MW-066	5/6/1997	NA	9
MW-066	7/16/1997	NA	8
MW-066	10/15/1997	NA	NA
MW-066	6/17/1998	760	13
MW-066	4/21/1999	730	10
MW-066	4/27/2000	848	8.61
MW-066	4/18/2001	660	9.3
MW-066	4/19/2002	790	8.8
MW-066	10/22/2003	770	8.4
MW-066	4/6/2004	810	8.0
MW-066	4/21/2005	867	10.8
MW-066	4/19/2006	797	11.1
MW-066	4/18/2007	795	10.5
MW-066	5/27/2009	865	8.29
MW-066	6/22/2010	768	9.09
MW-066	6/30/2011	817	8.60
MW-066	6/28/2012	687	9.6
MW-066	6/25/2014	793	8.5
MW-066	4/29/2015	822	9.5
MW-066	5/24/2016	839	8.1
MW-066	7/13/2017	808	8.4
DUP-1	7/13/2017	819	8.5
MW-066	6/12/2018	857	8.6
MW-066	6/25/2019	860	8.1
MW-066	6/9/2020	920	11.4
MW-066	6/22/2021	788	8.31
<b>MW-070</b>	<b>12/1/1991</b>	<b>NA</b>	<b>10</b>
MW-070	4/1/1992	NA	8
MW-070	7/1/1992	NA	9.2
MW-070	10/1/1992	NA	17
MW-070	1/1/1993	NA	8
MW-070	4/14/1993	NA	8
MW-070	7/13/1993	NA	8
MW-070	10/12/1993	NA	11
MW-070	1/11/1994	NA	10
MW-070	4/6/1994	NA	9.5

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**  
 Wet Chemistry, 1991 through 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

	Constituent	Wet Chemistry Analytical Data (mg/L)	
		Total Dissolved Solids (TDS)	Chloride
		New Mexico Standards	1,000
MW-070	7/18/1994	NA	8
MW-070	10/4/1994	NA	9.5
MW-070	1/9/1995	NA	9
MW-070	4/5/1995	NA	9.7
MW-070	7/18/1995	NA	9
MW-070	10/10/1995	NA	10
MW-070	1/18/1996	NA	11
MW-070	4/17/1996	NA	9.7
MW-070	7/1/1996	NA	8
MW-070	10/1/1996	NA	10
MW-070	2/5/1997	NA	10
MW-070	10/15/1997	NA	NA
MW-070	6/16/1998	370	12
MW-070	4/22/1999	310	11
MW-070	4/27/2000	385	8.61
MW-070	4/24/2001	270	9.8
MW-070	4/18/2002	310	15
MW-070	10/23/2003	350	10
MW-070	4/12/2004	420	9.9
MW-070	4/26/2005	336	11.6
MW-070	4/20/2006	328	11.5
MW-070	4/24/2007	<u>1,150</u>	21.9
MW-070	5/27/2009	508	10.2
MW-070	6/23/2010	350	9.96
MW-070	6/30/2011	426	9.5
MW-070	6/28/2012	509	33.3
MW-070	4/29/2015	377	109
MW-070	5/24/2016	402	9.6
MW-070	7/13/2017	333	9.9
MW-070	6/13/2018	498	10.3
MW-070	6/25/2019	<u>1,750</u>	9.87
MW-070	6/9/2020	394	8.61
MW-070	6/22/2021	431	10.7
<b>MW-077</b>	<b>7/21/1995</b>	<b>NA</b>	<b>110</b>
MW-077	1/20/1996	NA	120
MW-077	4/19/1996	NA	120
MW-077	7/1/1996	NA	100
MW-077	10/1/1996	NA	140
MW-077	5/7/1997	NA	150
MW-077	7/18/1997	NA	150
MW-077	10/24/2003	590	57
MW-077	4/7/2004	550	40
MW-077	4/27/2005	<u>1,110</u>	180
MW-077	4/26/2006	521	55
MW-077	6/23/2010	545	48
MW-077	6/30/2011	467	26.9
MW-077	6/25/2014	537	39.9

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

## Appendix B

Wet Chemistry, 1991 through 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

	Constituent	Wet Chemistry Analytical Data (mg/L)	
		Total Dissolved Solids (TDS)	Chloride
		New Mexico Standards	1,000
<b>MW-081</b>	<b>6/29/1998</b>	<b>800</b>	<b>16</b>
<b>MW-088</b>	<b>2/5/1997</b>	<b>970</b>	<b>30</b>
MW-088	4/30/1997	NA	26
MW-088	10/15/1997	NA	NA
MW-088	6/18/1998	840	22
MW-088	4/21/1999	800	24
MW-088	4/28/2000	876	43.1
MW-088	4/17/2001	770	23
MW-088	4/19/2002	750	35
MW-088	10/21/2003	810	22
MW-088	4/6/2004	820	19
MW-088	4/21/2005	945	27.8
MW-088	4/20/2006	780	29.7
MW-088	4/19/2007	861	32.8
MW-088	5/27/2009	937	48.1
MW-088	6/22/2010	919	35.2
MW-088	6/30/2011	946	41.1
MW-088	6/28/2012	912	29.8
MW-088	6/25/2014	863	26.2
MW-088	4/29/2015	914	30.6
MW-088	5/24/2016	975	27.4
MW-088	7/13/2017	984	29.8
MW-088	6/13/2018	<u>1,030</u>	28.9
MW-088	6/25/2019	920	28.4
MW-088	6/9/2020	962	25.5
MW-088	6/22/2021	884	35
MW-088 (DUP-1)	6/22/2021	855	32.9
<b>MW-106</b>	<b>2/11/1997</b>	<b>430</b>	<b>10</b>
MW-106	5/7/1997	NA	4
MW-106	7/18/1997	NA	5
MW-106	6/18/1998	380	4
MW-106	4/29/1999	NA	12
MW-106	5/1/2000	350	3.45
MW-106	4/18/2001	340	5.6
MW-106	4/17/2002	350	12
MW-106	10/21/2003	350	3.1
MW-106	4/5/2004	540	3.3
MW-106	4/20/2005	405	3.58
MW-106	4/19/2006	371	4.34
MW-106	4/18/2007	396	4.17
MW-106	6/23/2010	349	3.12
MW-106	6/30/2011	368	2.3
MW-106	6/28/2012	374	3.8
MW-106	6/28/2013	387	2.5
MW-106	6/25/2014	374	2.5
MW-106	4/30/2015	388	4.8
MW-106	5/23/2016	388	2.9

## Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

&lt;5 Indicates the result is below the specified laboratory detection limit

**Appendix B**

Wet Chemistry, 1991 through 2021

OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

	Constituent	Wet Chemistry Analytical Data (mg/L)	
		Total Dissolved Solids (TDS)	Chloride
	New Mexico Standards	1,000	250
MW-106	7/13/2017	364	3.1

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**

Wet Chemistry, 1991 through 2021  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

	Constituent	Wet Chemistry Analytical Data (mg/L)	
		Total Dissolved Solids (TDS)	Chloride
		New Mexico Standards	1,000
MW-106	6/13/2018	404	3.1
MW-106	6/25/2019	368	3.72
MW-106	6/9/2020	383	3.26
MW-106	6/22/2021	362	3.14
<b>MW-111</b>	<b>6/29/1998</b>	<b>900</b>	<b>100</b>
MW-111	4/21/1999	760	120
MW-111	4/27/2000	994	103
MW-111	4/18/2001	800	100
MW-111	4/19/2002	750	100
MW-111	10/22/2003	800	98
MW-111	4/7/2004	790	70
MW-111	4/21/2005	932	101
MW-111	4/19/2006	872	88.6
MW-111	4/18/2007	874	86.4
MW-111	5/27/2009	886	67.9
MW-111	6/22/2010	750	70.2
MW-111	6/30/2011	798	92.8
MW-111	6/28/2012	695	58.4
MW-111	6/28/2013	787	56.8
MW-111	6/25/2014	703	59.9
MW-111	4/30/2015	695	68.7
MW-111	5/27/2016	677	43.3
MW-111	7/13/2017	687	39.1
MW-111	6/13/2018	708	45.9
MW-111	6/25/2019	688	40
MW-111	6/9/2020	768	62.7
MW-111	6/22/2021	616	33.1
<b>MW-127</b>	<b>5/28/2009</b>	<b>766</b>	<b>77.1</b>
MW-127	6/23/2010	746	44.4
MW-127	7/1/2011	715	42.3
MW-127	6/28/2012	720	42.5
MW-127	6/28/2013	779	42.5
MW-127	6/25/2014	863	26.1
MW-127	4/30/2015	665	49.1
MW-127	5/25/2016	665	45.9
MW-127	7/13/2017	730	48.7
MW-127	6/14/2018	830	58.4
MW-127	6/25/2019	750	53
MW-127	6/10/2020	743	41.9
MW-127 (DUP-1)	6/10/2020	796	41.7
MW-127	6/22/2021	656	46.9

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

# APPENDIX C

## Laboratory Analytical Reports





Environment Testing  
America

## ANALYTICAL REPORT

Eurofins Xenco, Midland  
1211 W. Florida Ave  
Midland, TX 79701  
Tel: (432)704-5440

Laboratory Job ID: 880-3414-1  
Client Project/Site: Glenn Springs IBGP

For:  
ARCADIS U.S., Inc.  
1004 North Big Spring  
Suite 300  
Midland, Texas 79701

Attn: Hugh Robotham

Authorized for release by:  
6/30/2021 2:43:39 PM

John Builes, Project Manager  
(281)240-4200  
[john.builes@eurofinset.com](mailto:john.builes@eurofinset.com)



### LINKS

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results through  
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Have a Question?



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

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

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Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Laboratory Job ID: 880-3414-1

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## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
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 analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Eurofins Xenco, Midland

### Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

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**Job ID: 880-3414-1**

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**Laboratory: Eurofins Xenco, Midland**

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**Narrative**

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**Job Narrative**  
**880-3414-1**

**Receipt**

The samples were received on 6/24/2021 2:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

**GC VOA**

Method 8021B: The laboratory control sample (LCS) associated with analytical batch 880-4635 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

**HPLC/IC**

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

**General Chemistry**

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

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## Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

Client Sample ID: MW-49-062221

Lab Sample ID: 880-3414-1

Date Collected: 06/22/21 13:09

Matrix: Water

Date Received: 06/24/21 14:00

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0200	U	0.0200	0.00408	mg/L			06/25/21 18:06	10
Toluene	<0.0200	U	0.0200	0.00367	mg/L			06/25/21 18:06	10
Ethylbenzene	<0.0200	U	0.0200	0.00657	mg/L			06/25/21 18:06	10
m-Xylene & p-Xylene	<0.0400	U *1	0.0400	0.00629	mg/L			06/25/21 18:06	10
o-Xylene	<0.0200	U *-*1	0.0200	0.00642	mg/L			06/25/21 18:06	10
Xylenes, Total	<0.0400	U *-*1	0.0400	0.00642	mg/L			06/25/21 18:06	10
Total BTEX	<0.0400	U *-*1	0.0400	0.00657	mg/L			06/25/21 18:06	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130		06/25/21 18:06	10
1,4-Difluorobenzene (Surr)	103		70 - 130		06/25/21 18:06	10

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	316		10.0	0.421	mg/L			06/30/21 04:19	20

## General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	3360		200	200	mg/L			06/28/21 11:00	1

Client Sample ID: MW-45-062221

Lab Sample ID: 880-3414-2

Date Collected: 06/22/21 10:22

Matrix: Water

Date Received: 06/24/21 14:00

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000408	mg/L			06/25/21 15:41	1
Toluene	<0.00200	U	0.00200	0.000367	mg/L			06/25/21 15:41	1
Ethylbenzene	<0.00200	U	0.00200	0.000657	mg/L			06/25/21 15:41	1
m-Xylene & p-Xylene	<0.00400	U *1	0.00400	0.000629	mg/L			06/25/21 15:41	1
o-Xylene	<0.00200	U *-*1	0.00200	0.000642	mg/L			06/25/21 15:41	1
Xylenes, Total	<0.00400	U *-*1	0.00400	0.000642	mg/L			06/25/21 15:41	1
Total BTEX	<0.00400	U *-*1	0.00400	0.000657	mg/L			06/25/21 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130		06/25/21 15:41	1
1,4-Difluorobenzene (Surr)	111		70 - 130		06/25/21 15:41	1

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	497		5.00	0.210	mg/L			06/30/21 11:58	10

## General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5750		200	200	mg/L			06/28/21 11:00	1

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### Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

**Client Sample ID: MW-88-062221**

**Lab Sample ID: 880-3414-3**

Date Collected: 06/22/21 08:14

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400	0.00816	mg/L			06/25/21 16:02	20
Toluene	<0.0400	U	0.0400	0.00734	mg/L			06/25/21 16:02	20
Ethylbenzene	<0.0400	U	0.0400	0.0131	mg/L			06/25/21 16:02	20
m-Xylene & p-Xylene	<0.0800	U *1	0.0800	0.0126	mg/L			06/25/21 16:02	20
o-Xylene	<0.0400	U *-*1	0.0400	0.0128	mg/L			06/25/21 16:02	20
Xylenes, Total	<0.0800	U *-*1	0.0800	0.0128	mg/L			06/25/21 16:02	20
Total BTEX	<0.0800	U *-*1	0.0800	0.0131	mg/L			06/25/21 16:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		06/25/21 16:02	20
1,4-Difluorobenzene (Surr)	106		70 - 130		06/25/21 16:02	20

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.0		2.50	0.105	mg/L			06/30/21 04:38	5

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	884		50.0	50.0	mg/L			06/28/21 11:00	1

**Client Sample ID: MW-111-062221**

**Lab Sample ID: 880-3414-4**

Date Collected: 06/22/21 16:34

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400	0.00816	mg/L			06/25/21 16:23	20
Toluene	<0.0400	U	0.0400	0.00734	mg/L			06/25/21 16:23	20
Ethylbenzene	<0.0400	U	0.0400	0.0131	mg/L			06/25/21 16:23	20
m-Xylene & p-Xylene	<0.0800	U *1	0.0800	0.0126	mg/L			06/25/21 16:23	20
o-Xylene	<0.0400	U *-*1	0.0400	0.0128	mg/L			06/25/21 16:23	20
Xylenes, Total	<0.0800	U *-*1	0.0800	0.0128	mg/L			06/25/21 16:23	20
Total BTEX	<0.0800	U *-*1	0.0800	0.0131	mg/L			06/25/21 16:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130		06/25/21 16:23	20
1,4-Difluorobenzene (Surr)	129		70 - 130		06/25/21 16:23	20

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33.1		2.50	0.105	mg/L			06/30/21 04:42	5

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	616		50.0	50.0	mg/L			06/28/21 11:00	1

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### Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 880-3414-5**

Date Collected: 06/21/21 00:00

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400	0.00816	mg/L			06/25/21 16:43	20
Toluene	<0.0400	U	0.0400	0.00734	mg/L			06/25/21 16:43	20
Ethylbenzene	<0.0400	U	0.0400	0.0131	mg/L			06/25/21 16:43	20
m-Xylene & p-Xylene	<0.0800	U *1	0.0800	0.0126	mg/L			06/25/21 16:43	20
o-Xylene	<0.0400	U *- *1	0.0400	0.0128	mg/L			06/25/21 16:43	20
Xylenes, Total	<0.0800	U *- *1	0.0800	0.0128	mg/L			06/25/21 16:43	20
Total BTEX	<0.0800	U *- *1	0.0800	0.0131	mg/L			06/25/21 16:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130		06/25/21 16:43	20
1,4-Difluorobenzene (Surr)	113		70 - 130		06/25/21 16:43	20

### Surrogate Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

**Method: 8021B - Volatile Organic Compounds (GC)**

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-3414-1	MW-49-062221	98	103
880-3414-2	MW-45-062221	106	111
880-3414-2 MS	MW-45-062221	98	99
880-3414-2 MSD	MW-45-062221	94	103
880-3414-3	MW-88-062221	99	106
880-3414-4	MW-111-062221	119	129
880-3414-5	Trip Blank	100	113
LCS 880-4635/3	Lab Control Sample	90	90
LCSD 880-4635/4	Lab Control Sample Dup	105	105
MB 880-4635/9	Method Blank	113	95

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)  
 DFBZ = 1,4-Difluorobenzene (Surr)

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

### QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4635/9  
Matrix: Water  
Analysis Batch: 4635

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

Analyte	MB	MB	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200	0.000408	mg/L			06/25/21 15:20	1
Toluene	<0.00200	U	0.00200	0.000367	mg/L			06/25/21 15:20	1
Ethylbenzene	<0.00200	U	0.00200	0.000657	mg/L			06/25/21 15:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.000629	mg/L			06/25/21 15:20	1
o-Xylene	<0.00200	U	0.00200	0.000642	mg/L			06/25/21 15:20	1
Xylenes, Total	<0.00400	U	0.00400	0.000642	mg/L			06/25/21 15:20	1
Total BTEX	<0.00400	U	0.00400	0.000657	mg/L			06/25/21 15:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	113		70 - 130		06/25/21 15:20	1
1,4-Difluorobenzene (Surr)	95		70 - 130		06/25/21 15:20	1

Lab Sample ID: LCS 880-4635/3  
Matrix: Water  
Analysis Batch: 4635

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.100	0.08860		mg/L		89	70 - 130
Toluene	0.100	0.08394		mg/L		84	70 - 130
Ethylbenzene	0.100	0.08752		mg/L		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1504		mg/L		75	70 - 130
o-Xylene	0.100	0.001507	J *	mg/L		2	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-4635/4  
Matrix: Water  
Analysis Batch: 4635

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

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
		Result	Qualifier						
Benzene	0.100	0.09965		mg/L		100	70 - 130	12	20
Toluene	0.100	0.1001		mg/L		100	70 - 130	18	20
Ethylbenzene	0.100	0.1042		mg/L		104	70 - 130	17	20
m-Xylene & p-Xylene	0.200	0.1856	*1	mg/L		93	70 - 130	21	20
o-Xylene	0.100	0.1009	*1	mg/L		101	70 - 130	194	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 880-3414-2 MS  
Matrix: Water  
Analysis Batch: 4635

Client Sample ID: MW-45-062221  
Prep Type: Total/NA

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Benzene	<0.00200	U	0.100	0.09325		mg/L		93	70 - 130

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### QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-3414-2 MS  
Matrix: Water  
Analysis Batch: 4635

Client Sample ID: MW-45-062221  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Toluene	<0.00200	U	0.100	0.09711		mg/L		97	70 - 130	
Ethylbenzene	<0.00200	U	0.100	0.09547		mg/L		95	70 - 130	
m-Xylene & p-Xylene	<0.00400	U *1	0.200	0.1731		mg/L		87	70 - 130	
o-Xylene	<0.00200	U * - *1	0.100	0.09610		mg/L		96	70 - 130	
<b>Surrogate</b>		<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
4-Bromofluorobenzene (Surr)		98		70 - 130						
1,4-Difluorobenzene (Surr)		99		70 - 130						

Lab Sample ID: 880-3414-2 MSD  
Matrix: Water  
Analysis Batch: 4635

Client Sample ID: MW-45-062221  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09458		mg/L		95	70 - 130	1	25
Toluene	<0.00200	U	0.100	0.09559		mg/L		96	70 - 130	2	25
Ethylbenzene	<0.00200	U	0.100	0.09173		mg/L		92	70 - 130	4	25
m-Xylene & p-Xylene	<0.00400	U *1	0.200	0.1629		mg/L		81	70 - 130	6	25
o-Xylene	<0.00200	U * - *1	0.100	0.09135		mg/L		91	70 - 130	5	25
<b>Surrogate</b>		<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>							
4-Bromofluorobenzene (Surr)		94		70 - 130							
1,4-Difluorobenzene (Surr)		103		70 - 130							

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4757/3  
Matrix: Water  
Analysis Batch: 4757

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500	0.0210	mg/L			06/30/21 04:05	1

Lab Sample ID: LCS 880-4757/4  
Matrix: Water  
Analysis Batch: 4757

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	23.58		mg/L		94	90 - 110

Lab Sample ID: LCSD 880-4757/5  
Matrix: Water  
Analysis Batch: 4757

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
Chloride	25.0	23.57		mg/L		94	90 - 110	0	20

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### QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

#### Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-3414-1 MS  
Matrix: Water  
Analysis Batch: 4757

Client Sample ID: MW-49-062221  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	316		500	823.6		mg/L		102	90 - 110

Lab Sample ID: 880-3414-1 MSD  
Matrix: Water  
Analysis Batch: 4757

Client Sample ID: MW-49-062221  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	316		500	824.7		mg/L		102	90 - 110	0	20

#### Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 880-4665/1  
Matrix: Water  
Analysis Batch: 4665

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<25.0	U	25.0	25.0	mg/L			06/28/21 11:00	1

Lab Sample ID: LCS 880-4665/2  
Matrix: Water  
Analysis Batch: 4665

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	1000	997.0		mg/L		100	80 - 120

Lab Sample ID: LCSD 880-4665/3  
Matrix: Water  
Analysis Batch: 4665

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
Total Dissolved Solids	1000	978.0		mg/L		98	80 - 120	2	10

Lab Sample ID: 880-3414-1 DU  
Matrix: Water  
Analysis Batch: 4665

Client Sample ID: MW-49-062221  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	3360		3352		mg/L		0.1	10

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## QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

## GC VOA

## Analysis Batch: 4635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-3414-1	MW-49-062221	Total/NA	Water	8021B	
880-3414-2	MW-45-062221	Total/NA	Water	8021B	
880-3414-3	MW-88-062221	Total/NA	Water	8021B	
880-3414-4	MW-111-062221	Total/NA	Water	8021B	
880-3414-5	Trip Blank	Total/NA	Water	8021B	
MB 880-4635/9	Method Blank	Total/NA	Water	8021B	
LCS 880-4635/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-4635/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-3414-2 MS	MW-45-062221	Total/NA	Water	8021B	
880-3414-2 MSD	MW-45-062221	Total/NA	Water	8021B	

## HPLC/IC

## Analysis Batch: 4757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-3414-1	MW-49-062221	Total/NA	Water	300.0	
880-3414-2	MW-45-062221	Total/NA	Water	300.0	
880-3414-3	MW-88-062221	Total/NA	Water	300.0	
880-3414-4	MW-111-062221	Total/NA	Water	300.0	
MB 880-4757/3	Method Blank	Total/NA	Water	300.0	
LCS 880-4757/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-4757/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-3414-1 MS	MW-49-062221	Total/NA	Water	300.0	
880-3414-1 MSD	MW-49-062221	Total/NA	Water	300.0	

## General Chemistry

## Analysis Batch: 4665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-3414-1	MW-49-062221	Total/NA	Water	SM 2540C	
880-3414-2	MW-45-062221	Total/NA	Water	SM 2540C	
880-3414-3	MW-88-062221	Total/NA	Water	SM 2540C	
880-3414-4	MW-111-062221	Total/NA	Water	SM 2540C	
MB 880-4665/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 880-4665/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 880-4665/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
880-3414-1 DU	MW-49-062221	Total/NA	Water	SM 2540C	

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### Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

**Client Sample ID: MW-49-062221**

**Lab Sample ID: 880-3414-1**

Date Collected: 06/22/21 13:09

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	4635	06/25/21 18:06	MR	XEN MID
Total/NA	Analysis	300.0		20	4757	06/30/21 04:19	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: MW-45-062221**

**Lab Sample ID: 880-3414-2**

Date Collected: 06/22/21 10:22

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	4635	06/25/21 15:41	MR	XEN MID
Total/NA	Analysis	300.0		10	4757	06/30/21 11:58	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: MW-88-062221**

**Lab Sample ID: 880-3414-3**

Date Collected: 06/22/21 08:14

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		20	4635	06/25/21 16:02	MR	XEN MID
Total/NA	Analysis	300.0		5	4757	06/30/21 04:38	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: MW-111-062221**

**Lab Sample ID: 880-3414-4**

Date Collected: 06/22/21 16:34

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		20	4635	06/25/21 16:23	MR	XEN MID
Total/NA	Analysis	300.0		5	4757	06/30/21 04:42	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: Trip Blank**

**Lab Sample ID: 880-3414-5**

Date Collected: 06/21/21 00:00

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		20	4635	06/25/21 16:43	MR	XEN MID

**Laboratory References:**

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Midland

### Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

#### Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

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
300.0		Water	Chloride
8021B		Water	Total BTEX
SM 2540C		Water	Total Dissolved Solids

- 1
- 2
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### Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN MID
5030B	Purge and Trap	SW846	XEN MID

**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:**

- XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



### Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3414-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
880-3414-1	MW-49-062221	Water	06/22/21 13:09	06/24/21 14:00	
880-3414-2	MW-45-062221	Water	06/22/21 10:22	06/24/21 14:00	
880-3414-3	MW-88-062221	Water	06/22/21 08:14	06/24/21 14:00	
880-3414-4	MW-111-062221	Water	06/22/21 16:34	06/24/21 14:00	
880-3414-5	Trip Blank	Water	06/21/21 00:00	06/24/21 14:00	

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### Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 880-3414-1

**Login Number: 3414**

**List Source: Eurofins Xenco, Midland**

**List Number: 1**

**Creator: Teel, Brianna**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 <6mm (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	



Environment Testing  
America

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## ANALYTICAL REPORT

Eurofins Xenco, Midland  
1211 W. Florida Ave  
Midland, TX 79701  
Tel: (432)704-5440

Laboratory Job ID: 880-3415-1  
Client Project/Site: Glenn Springs IBGP

For:  
ARCADIS U.S., Inc.  
1004 North Big Spring  
Suite 300  
Midland, Texas 79701

Attn: Hugh Robotham

Authorized for release by:  
6/30/2021 2:43:41 PM

John Builes, Project Manager  
(281)240-4200  
[john.builes@eurofinset.com](mailto:john.builes@eurofinset.com)



### LINKS

Review your project  
results through  
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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*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.*

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Laboratory Job ID: 880-3415-1

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## Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## 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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Eurofins Xenco, Midland

### Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

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**Job ID: 880-3415-1**

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**Laboratory: Eurofins Xenco, Midland**

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**Narrative**

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**Job Narrative**  
**880-3415-1**

**Receipt**

The samples were received on 6/24/2021 2:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C

**GC VOA**

Method 8021B: The laboratory control sample (LCS) associated with analytical batch 880-4635 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

**HPLC/IC**

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

**General Chemistry**

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

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### Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

Client Sample ID: MW-106-062221

Lab Sample ID: 880-3415-1

Date Collected: 06/22/21 10:21

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000408 mg/L			06/25/21 17:04	1
Toluene	<0.00200	U	0.00200	0.000367 mg/L			06/25/21 17:04	1
Ethylbenzene	<0.00200	U	0.00200	0.000657 mg/L			06/25/21 17:04	1
m-Xylene & p-Xylene	<0.00400	U *1	0.00400	0.000629 mg/L			06/25/21 17:04	1
o-Xylene	<0.00200	U *-*1	0.00200	0.000642 mg/L			06/25/21 17:04	1
Xylenes, Total	<0.00400	U *-*1	0.00400	0.000642 mg/L			06/25/21 17:04	1
Total BTEX	<0.00400	U *-*1	0.00400	0.000657 mg/L			06/25/21 17:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130		06/25/21 17:04	1
1,4-Difluorobenzene (Surr)	100		70 - 130		06/25/21 17:04	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.14		0.500	0.0210 mg/L			06/30/21 12:03	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	362		50.0	50.0 mg/L			06/28/21 11:00	1

Client Sample ID: MW-70-062221

Lab Sample ID: 880-3415-2

Date Collected: 06/22/21 15:25

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00710		0.00200	0.000408 mg/L			06/25/21 17:25	1
Toluene	0.00571		0.00200	0.000367 mg/L			06/25/21 17:25	1
Ethylbenzene	<0.00200	U	0.00200	0.000657 mg/L			06/25/21 17:25	1
m-Xylene & p-Xylene	<0.00400	U *1	0.00400	0.000629 mg/L			06/25/21 17:25	1
o-Xylene	0.00388	*-*1	0.00200	0.000642 mg/L			06/25/21 17:25	1
Xylenes, Total	<0.00400	U *-*1	0.00400	0.000642 mg/L			06/25/21 17:25	1
Total BTEX	0.0167	*-*1	0.00400	0.000657 mg/L			06/25/21 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	189	S1+	70 - 130		06/25/21 17:25	1
1,4-Difluorobenzene (Surr)	77		70 - 130		06/25/21 17:25	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.7		0.500	0.0210 mg/L			06/30/21 12:08	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	431		50.0	50.0 mg/L			06/28/21 11:00	1

Eurofins Xenco, Midland

### Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

**Client Sample ID: MW-127-062221**

**Lab Sample ID: 880-3415-3**

Date Collected: 06/22/21 12:04

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0200	U	0.0200	0.00408 mg/L			06/25/21 18:27	10
Toluene	<0.0200	U	0.0200	0.00367 mg/L			06/25/21 18:27	10
Ethylbenzene	<0.0200	U	0.0200	0.00657 mg/L			06/25/21 18:27	10
m-Xylene & p-Xylene	<0.0400	U *1	0.0400	0.00629 mg/L			06/25/21 18:27	10
o-Xylene	<0.0200	U *- *1	0.0200	0.00642 mg/L			06/25/21 18:27	10
Xylenes, Total	<0.0400	U *- *1	0.0400	0.00642 mg/L			06/25/21 18:27	10
Total BTEX	<0.0400	U *- *1	0.0400	0.00657 mg/L			06/25/21 18:27	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130		06/25/21 18:27	10
1,4-Difluorobenzene (Surr)	96		70 - 130		06/25/21 18:27	10

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.9		2.50	0.105 mg/L			06/30/21 05:06	5

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	656		50.0	50.0 mg/L			06/28/21 11:00	1

**Client Sample ID: Dup-1-062221**

**Lab Sample ID: 880-3415-4**

Date Collected: 06/22/21 00:00

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0200	U	0.0200	0.00408 mg/L			06/25/21 18:48	10
Toluene	<0.0200	U	0.0200	0.00367 mg/L			06/25/21 18:48	10
Ethylbenzene	<0.0200	U	0.0200	0.00657 mg/L			06/25/21 18:48	10
m-Xylene & p-Xylene	<0.0400	U *1	0.0400	0.00629 mg/L			06/25/21 18:48	10
o-Xylene	<0.0200	U *- *1	0.0200	0.00642 mg/L			06/25/21 18:48	10
Xylenes, Total	<0.0400	U *- *1	0.0400	0.00642 mg/L			06/25/21 18:48	10
Total BTEX	<0.0400	U *- *1	0.0400	0.00657 mg/L			06/25/21 18:48	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130		06/25/21 18:48	10
1,4-Difluorobenzene (Surr)	116		70 - 130		06/25/21 18:48	10

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.9		2.50	0.105 mg/L			06/30/21 05:11	5

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	855		50.0	50.0 mg/L			06/28/21 11:00	1

Eurofins Xenco, Midland

### Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

Client Sample ID: MW-66-062221

Lab Sample ID: 880-3415-5

Date Collected: 06/22/21 09:24

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000408 mg/L			06/25/21 17:46	1
Toluene	<0.00200	U	0.00200	0.000367 mg/L			06/25/21 17:46	1
Ethylbenzene	<0.00200	U	0.00200	0.000657 mg/L			06/25/21 17:46	1
m-Xylene & p-Xylene	<0.00400	U *1	0.00400	0.000629 mg/L			06/25/21 17:46	1
o-Xylene	<0.00200	U *- *1	0.00200	0.000642 mg/L			06/25/21 17:46	1
Xylenes, Total	<0.00400	U *- *1	0.00400	0.000642 mg/L			06/25/21 17:46	1
Total BTEX	<0.00400	U *- *1	0.00400	0.000657 mg/L			06/25/21 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130		06/25/21 17:46	1
1,4-Difluorobenzene (Surr)	107		70 - 130		06/25/21 17:46	1

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.31		0.500	0.0210 mg/L			06/30/21 12:12	1

**General Chemistry**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	788		50.0	50.0 mg/L			06/28/21 11:00	1

Client Sample ID: Trip Blank

Lab Sample ID: 880-3415-6

Date Collected: 06/22/21 00:00

Matrix: Water

Date Received: 06/24/21 14:00

**Method: 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000408 mg/L			06/25/21 20:10	1
Toluene	<0.00200	U	0.00200	0.000367 mg/L			06/25/21 20:10	1
Ethylbenzene	<0.00200	U	0.00200	0.000657 mg/L			06/25/21 20:10	1
m-Xylene & p-Xylene	<0.00400	U *1	0.00400	0.000629 mg/L			06/25/21 20:10	1
o-Xylene	<0.00200	U *- *1	0.00200	0.000642 mg/L			06/25/21 20:10	1
Xylenes, Total	<0.00400	U *- *1	0.00400	0.000642 mg/L			06/25/21 20:10	1
Total BTEX	<0.00400	U *- *1	0.00400	0.000657 mg/L			06/25/21 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130		06/25/21 20:10	1
1,4-Difluorobenzene (Surr)	120		70 - 130		06/25/21 20:10	1

### Surrogate Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

**Method: 8021B - Volatile Organic Compounds (GC)**

**Matrix: Water**

**Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-3415-1	MW-106-062221	96	100
880-3415-2	MW-70-062221	189 S1+	77
880-3415-3	MW-127-062221	99	96
880-3415-4	Dup-1-062221	126	116
880-3415-5	MW-66-062221	111	107
880-3415-6	Trip Blank	111	120
LCS 880-4635/3	Lab Control Sample	90	90
LCSD 880-4635/4	Lab Control Sample Dup	105	105
MB 880-4635/9	Method Blank	113	95

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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### QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4635/9  
Matrix: Water  
Analysis Batch: 4635

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

Analyte	MB	MB	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	0.000408	mg/L		06/25/21 15:20	1
Toluene	<0.00200	U	0.00200	0.000367	mg/L		06/25/21 15:20	1
Ethylbenzene	<0.00200	U	0.00200	0.000657	mg/L		06/25/21 15:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.000629	mg/L		06/25/21 15:20	1
o-Xylene	<0.00200	U	0.00200	0.000642	mg/L		06/25/21 15:20	1
Xylenes, Total	<0.00400	U	0.00400	0.000642	mg/L		06/25/21 15:20	1
Total BTEX	<0.00400	U	0.00400	0.000657	mg/L		06/25/21 15:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	113		70 - 130		06/25/21 15:20	1
1,4-Difluorobenzene (Surr)	95		70 - 130		06/25/21 15:20	1

Lab Sample ID: LCS 880-4635/3  
Matrix: Water  
Analysis Batch: 4635

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.100	0.08860		mg/L		89	70 - 130
Toluene	0.100	0.08394		mg/L		84	70 - 130
Ethylbenzene	0.100	0.08752		mg/L		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1504		mg/L		75	70 - 130
o-Xylene	0.100	0.001507	J *	mg/L		2	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-4635/4  
Matrix: Water  
Analysis Batch: 4635

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

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
		Result	Qualifier						
Benzene	0.100	0.09965		mg/L		100	70 - 130	12	20
Toluene	0.100	0.1001		mg/L		100	70 - 130	18	20
Ethylbenzene	0.100	0.1042		mg/L		104	70 - 130	17	20
m-Xylene & p-Xylene	0.200	0.1856	*1	mg/L		93	70 - 130	21	20
o-Xylene	0.100	0.1009	*1	mg/L		101	70 - 130	194	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Eurofins Xenco, Midland

### QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4757/3  
Matrix: Water  
Analysis Batch: 4757

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500	0.0210 mg/L			06/30/21 04:05	1

Lab Sample ID: LCS 880-4757/4  
Matrix: Water  
Analysis Batch: 4757

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	23.58		mg/L		94	90 - 110

Lab Sample ID: LCSD 880-4757/5  
Matrix: Water  
Analysis Batch: 4757

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
Chloride	25.0	23.57		mg/L		94	90 - 110	0	20

#### Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 880-4665/1  
Matrix: Water  
Analysis Batch: 4665

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<25.0	U	25.0	25.0 mg/L			06/28/21 11:00	1

Lab Sample ID: LCS 880-4665/2  
Matrix: Water  
Analysis Batch: 4665

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	1000	997.0		mg/L		100	80 - 120

Lab Sample ID: LCSD 880-4665/3  
Matrix: Water  
Analysis Batch: 4665

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
Total Dissolved Solids	1000	978.0		mg/L		98	80 - 120	2	10

## QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

## GC VOA

## Analysis Batch: 4635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-3415-1	MW-106-062221	Total/NA	Water	8021B	
880-3415-2	MW-70-062221	Total/NA	Water	8021B	
880-3415-3	MW-127-062221	Total/NA	Water	8021B	
880-3415-4	Dup-1-062221	Total/NA	Water	8021B	
880-3415-5	MW-66-062221	Total/NA	Water	8021B	
880-3415-6	Trip Blank	Total/NA	Water	8021B	
MB 880-4635/9	Method Blank	Total/NA	Water	8021B	
LCS 880-4635/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-4635/4	Lab Control Sample Dup	Total/NA	Water	8021B	

## HPLC/IC

## Analysis Batch: 4757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-3415-1	MW-106-062221	Total/NA	Water	300.0	
880-3415-2	MW-70-062221	Total/NA	Water	300.0	
880-3415-3	MW-127-062221	Total/NA	Water	300.0	
880-3415-4	Dup-1-062221	Total/NA	Water	300.0	
880-3415-5	MW-66-062221	Total/NA	Water	300.0	
MB 880-4757/3	Method Blank	Total/NA	Water	300.0	
LCS 880-4757/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-4757/5	Lab Control Sample Dup	Total/NA	Water	300.0	

## General Chemistry

## Analysis Batch: 4665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-3415-1	MW-106-062221	Total/NA	Water	SM 2540C	
880-3415-2	MW-70-062221	Total/NA	Water	SM 2540C	
880-3415-3	MW-127-062221	Total/NA	Water	SM 2540C	
880-3415-4	Dup-1-062221	Total/NA	Water	SM 2540C	
880-3415-5	MW-66-062221	Total/NA	Water	SM 2540C	
MB 880-4665/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 880-4665/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 880-4665/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Eurofins Xenco, Midland

### Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

**Client Sample ID: MW-106-062221**

**Lab Sample ID: 880-3415-1**

Date Collected: 06/22/21 10:21

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	4635	06/25/21 17:04	MR	XEN MID
Total/NA	Analysis	300.0		1	4757	06/30/21 12:03	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: MW-70-062221**

**Lab Sample ID: 880-3415-2**

Date Collected: 06/22/21 15:25

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	4635	06/25/21 17:25	MR	XEN MID
Total/NA	Analysis	300.0		1	4757	06/30/21 12:08	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: MW-127-062221**

**Lab Sample ID: 880-3415-3**

Date Collected: 06/22/21 12:04

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	4635	06/25/21 18:27	MR	XEN MID
Total/NA	Analysis	300.0		5	4757	06/30/21 05:06	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: Dup-1-062221**

**Lab Sample ID: 880-3415-4**

Date Collected: 06/22/21 00:00

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		10	4635	06/25/21 18:48	MR	XEN MID
Total/NA	Analysis	300.0		5	4757	06/30/21 05:11	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

**Client Sample ID: MW-66-062221**

**Lab Sample ID: 880-3415-5**

Date Collected: 06/22/21 09:24

Matrix: Water

Date Received: 06/24/21 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	4635	06/25/21 17:46	MR	XEN MID
Total/NA	Analysis	300.0		1	4757	06/30/21 12:12	CH	XEN MID
Total/NA	Analysis	SM 2540C		1	4665	06/28/21 11:00	SC	XEN MID

Eurofins Xenco, Midland

### Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 880-3415-6**

**Date Collected: 06/22/21 00:00**

**Matrix: Water**

**Date Received: 06/24/21 14:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8021B		1	4635	06/25/21 20:10	MR	XEN MID

**Laboratory References:**

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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### Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

#### Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

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
300.0		Water	Chloride
8021B		Water	Total BTEX
SM 2540C		Water	Total Dissolved Solids

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### Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
SM 2540C	Solids, Total Dissolved (TDS)	SM	XEN MID
5030B	Purge and Trap	SW846	XEN MID

**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:**

- XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



### Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Glenn Springs IBGP

Job ID: 880-3415-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
880-3415-1	MW-106-062221	Water	06/22/21 10:21	06/24/21 14:00	
880-3415-2	MW-70-062221	Water	06/22/21 15:25	06/24/21 14:00	
880-3415-3	MW-127-062221	Water	06/22/21 12:04	06/24/21 14:00	
880-3415-4	Dup-1-062221	Water	06/22/21 00:00	06/24/21 14:00	
880-3415-5	MW-66-062221	Water	06/22/21 09:24	06/24/21 14:00	
880-3415-6	Trip Blank	Water	06/22/21 00:00	06/24/21 14:00	

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Infrastructure Water Environmental Services

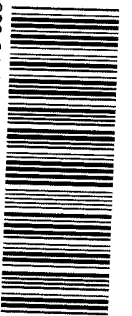
ID#

CHAIN OF ANAL

880-3415 Chain of Custody

Page 1 of 1

Lab Work Order # 880-3415



**Send Results to:**

Contact & Company Name: **Hugh Robotham Arcadis** Telephone: **432-687-5400**

Address: **1004 N. Big Spring Suite 121** Fax: **432-687-5401**

City: **Midland, TX 79701** State: **TX** Zip: **79701** Email Address: **hugh.robtham@arcadis.com**

Project Name/Location (City, State): **Glenn Springs IBGP** Project #: **30085438**

Sample's Printed Name: **Jerry Longwell**

Sample ID	Collection		Type (✓)	Matrix
	Date	Time		

MJD-DC-062221	06/22/21	1028	X	W
MJD-FO-062121	06/21/21	1525	X	W
MJD-N27-062221	06/22/21	1204	X	W
DUP-1-B-062221	06/22/21	0804	X	W
MJD-65-062221	06/22/21	0804	X	W
TRIP Blank				

Preservative	B	E
Filtered (✓)		
# of Containers		
Container Information	1	2

**PARAMETER ANALYSIS & METHOD**

BTEX  
Chloride, TDS

**REMARKS**

Matrix Key:	SE - Sediment	NL - NAP/LOI
SO - Soil	SL - Sludge	SW - Sample Wipe
W - Water	A - Air	Other _____
T - Tissue		

Special Instructions/Comments: \_\_\_\_\_

Special QA/QC Instructions (✓)

Laboratory Information and Receipt		Relinquished By		Received By		Relinquished By		Laboratory Received By	
Lab Name:	Eurofins Xenco	Printed Name:	Jerry Longwell	Printed Name:	Ed Phillips	Printed Name:		Printed Name:	
Cooler packed with ice (✓)	<input checked="" type="checkbox"/>	In intact	<input checked="" type="checkbox"/>	Signature:	[Signature]	Signature:	[Signature]	Signature:	
Sample Receipt:	Sample Receipt:	Firm:	ARCADIS	Firm/Counter:	Eurofins	Firm/Counter:		Firm:	
Condition/Cooler Temp:	0° 9/1.4	Date/Time:	06/24/21	Date/Time:	1400	Date/Time:		Date/Time:	

Shipping Tracking #: \_\_\_\_\_

Standard TAT \_\_\_\_\_

Specific Turnaround Requirements \_\_\_\_\_

Special Instructions/Comments: \_\_\_\_\_

20730828 Colic AR Form 01 12.2007

Distribution: WHITE - Laboratory returns with results

YELLOW - Lab copy

PINK - Retained by ARCADIS

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### Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 880-3415-1

**Login Number: 3415**

**List Source: Eurofins Xenco, Midland**

**List Number: 1**

**Creator: Teel, Brianna**

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

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# APPENDIX D

## Laboratory Data Validation Report



# Technical Memorandum

August 19, 2021

<b>To</b>	Hugh Robotham (hugh.robotham@arcadis.com)	<b>Ref. No.</b>	11129300
<b>Copy to</b>	Suda Arakere	<b>Email</b>	suda_arakere@oxy.com
<b>From</b>	Michelle Kukta/ro/2-NF	<b>Tel</b>	716-205-1990
<b>Subject</b>	Analytical Results and Reduced Validation Annual Groundwater Monitoring Glenn Springs Holdings, Inc. – Indian Basin Indian Basin, New Mexico June 2021		

## 1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the Annual Groundwater Monitoring at the Indian Basin site during June 2021. Samples were submitted to Eurofins TestAmerica located in Houston, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, field QA/QC samples and recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS).

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- "National Functional Guidelines for Organic Superfund Methods Data Review", United States Environmental Protection Agency (USEPA), 540-R-20-005, November 2020.
- "National Functional Guidelines for Inorganic Superfund Methods Data Review", USEPA, 542-R-20-006, November 2020

These items will subsequently be referred to as the "Guidelines" in this Memorandum.

## 2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses is summarized in Table 3. Sample chain of custody documents and the analytical report were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

### 3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

### 4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. Most surrogate recoveries were within the laboratory control limits. One high surrogate recovery was reported for one sample. Positive sample results associated with the high recovery were qualified as estimated, see Table 4.

### 5. Laboratory Control Sample Analyses

LCS and/or LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

#### Organic Analyses

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

#### Inorganic Analyses

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

### 6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

The laboratory performed site-specific MS/MSD analyses internally.

### **Organic Analyses**

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

### **Inorganic Analyses**

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

## **7. Duplicate Sample Analyses – Inorganic Analyses**

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed internally by the laboratory for inorganic analyses. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

## **8. Field QA/QC Samples**

The field QA/QC consisted of two trip blank samples and one field duplicate sample set.

### **Trip Blank Sample Analysis**

To evaluate contamination from sample collection, transportation, storage, and analytical activities, two trip blanks were submitted to the laboratory for VOC analysis. Most results were non-detect for the compounds of interest. Low level concentrations of VOCs were detected in one trip blank. All associated samples containing similar concentrations of VOCs were assumed to be a reflection of field activity contamination and were qualified as non-detect, see Table 5.

### **Field Duplicate Sample Analysis**

To assess the analytical and sampling protocol precision, one field duplicate sample was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with the duplicate sample must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one time the RL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

## **9. Analyte Reporting**

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were reported as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

## 10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Regards

A handwritten signature in black ink, appearing to read "Michelle W". The signature is written in a cursive style with a large, sweeping initial letter.

**Michelle Kukta**  
Project Chemist

Table 1

**Sample Collection and Analysis Summary  
Annual Groundwater Monitoring  
Glenn Springs Holdings, Inc. - Indian Basin  
Indian Basin, Mexico  
June 2021**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Parameters			Comments
					VOC	Chloride	TDS	
MW-45-062221	MW-45	Groundwater	06/22/2021	10:22	X	X	X	
MW-49-062221	MW-49	Groundwater	06/22/2021	13:09	X	X	X	
MW-66-062221	MW-66	Groundwater	06/22/2021	09:24	X	X	X	
MW-70-062121	MW-70	Groundwater	06/21/2021	15:25	X	X	X	
MW-88-062221	MW-88	Groundwater	06/22/2021	08:14	X	X	X	
Dup-1-062221	MW-88	Groundwater	06/22/2021	-	X	X	X	FD(MW-88-062221)
MW-106-062221	MW-106	Groundwater	06/22/2021	10:21	X	X	X	
MW-111-062121	MW-113	Groundwater	06/21/2021	16:34	X	X	X	
MW-127-062221	MW-111	Groundwater	06/22/2021	12:04	X	X	X	
Trip Blank	-	Water	06/21/2021	-	X			Trip Blank
Trip Blank	-	Water	06/22/2021	-	X			Trip Blank

Notes:

FD - Field Duplicate of sample in parenthesis

VOC - Volatile Organic Compounds

TDS - Total Dissolved Solids

"-" - Not applicable

Table 2

**Analytical Results Summary  
Annual Groundwater Monitoring  
Glenn Springs Holdings, Inc. - Indian Basin  
Indian Basin, New Mexico  
June 2021**

Location ID:	MW-45	MW-49	MW-66	MW-70	MW-88	MW-88	MW-106	MW-111	MW-113	
Sample Name:	MW-45-062221	MW-49-062221	MW-66-062221	MW-70-062121	MW-88-062221	Dup-1-062221	MW-106-062221	MW-127-062221	MW-111-062121	
Sample Date:	06/22/2021	06/22/2021	06/22/2021	06/21/2021	06/22/2021	06/22/2021 Duplicate	06/22/2021	06/22/2021	06/21/2021	
Parameters	Unit									
<b>Volatile Organic Compounds</b>										
Benzene	mg/L	0.00200 U	0.0200 U	0.00200 U	0.00710 J+	0.00839 J	0.00455 J	0.00200 U	0.0200 U	0.0400 U
Ethylbenzene	mg/L	0.00200 U	0.0200 U	0.00200 U	0.00172 J+	0.0400 U	0.0128 J	0.00200 U	0.0200 U	0.0400 U
m&p-Xylenes	mg/L	0.00400 U	0.0400 U	0.00400 U	0.00400 U	0.0800 U	0.0400 U	0.00400 U	0.0400 U	0.0800 U
o-Xylene	mg/L	0.00200 U	0.0200 U	0.00200 U	0.00388 J+	0.0400 U	0.00965 J	0.00200 U	0.0115 J	0.0400 U
Toluene	mg/L	0.00200 U	0.00557 J	0.00200 U	0.00571 J+	0.0116 J	0.00552 J	0.000608 J	0.0200 U	0.0400 U
Total BTEX	mg/L	0.00400 U	0.0400 U	0.00400 U	0.0184 J+	0.0800 U	0.0325 J	0.00400 U	0.0115 J	0.0800 U
Xylenes (total)	mg/L	0.00400 U	0.0400 U	0.00400 U	0.00388 J+	0.0800 U	0.00965 J	0.00400 U	0.0115 J	0.0800 U
<b>General Chemistry</b>										
Chloride	mg/L	497	316	8.31	10.7	35.0	32.9	3.14	46.9	33.1
Total dissolved solids (TDS)	mg/L	5750	3360	788	431	884	855	362	656	616

Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- J+ - Estimated concentration; implied high bias

**Table 3**

**Analytical Methods  
Annual Groundwater Monitoring  
Glenn Springs Holdings, Inc. - Indian Basin  
Indian Basin, New Mexico  
June 2021**

<b>Parameter</b>	<b>Method</b>	<b>Matrix</b>	<b>Holding Time Collection to Analysis (Days)</b>
Volatile Organic Compounds (VOC)	SW-846 8021B	Groundwater	14
Chloride	EPA 300.0	Groundwater	28
Total Dissolved solids (TDS)	SM 2540C	Groundwater	7

Notes:

Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions.

EPA - Environmental Protection Agency

**Table 4**

**Qualified Sample Data Due to Outlying of Surrogate Recoveries  
Annual Groundwater Monitoring  
Glenn Springs Holdings, Inc. - Indian Basin  
Indian Basin, New Mexico  
June 2021**

<b>Parameter</b>	<b>Sample ID</b>	<b>Surrogate</b>	<b>Surrogate % Recovery</b>	<b>Control Limits % Recovery</b>	<b>Analyte</b>	<b>Qualified Result</b>	<b>Units</b>
VOC	MW-70-062121	p-Bromofluorobenzene	189	70-130	Benzene	0.00710 J+	mg/L
					Ethylbenzene	0.00172 J+	mg/L
					o-Xylene	0.00388 J+	mg/L
					Toluene	0.00571 J+	mg/L
					Total BTEX	0.0184 J+	mg/L
					Xylenes (total)	0.00388 J+	mg/L

Notes:

J+ - Estimated concentration; implied high bias  
VOC - Volatile Organic Compounds

Table 5

**Qualified Sample Data Due to Analyte Concentrations in the Trip Blanks  
Annual Groundwater Monitoring  
Glenn Springs Holdings, Inc. - Indian Basin  
Indian Basin, New Mexico  
June 2021**

Parameter	Blank Date (mm/dd/yyyy)	Analyte	Blank Result	Associated Sample ID	Original Result	Qualified Result	Units
VOC	06/22/2021	o-Xylene	0.0171	MW-49-062221	0.00648 J	0.0200 U	mg/L
				MW-88-062221	0.0207 J	0.0400 U	mg/L
		Total BTEX	0.0171	MW-49-062221	0.0121 J	0.0400 U	mg/L
				MW-88-062221	0.0407 J	0.0800 U	mg/L
		Xylenes (total)	0.0171	MW-49-062221	0.00648 J	0.0400 U	mg/L
				MW-88-062221	0.0207 J	0.0800 U	mg/L

Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

VOC - Volatile Organic Compounds

# APPENDIX E

## NMOCD Correspondence





# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



February 20, 2009

M. Paul Peacock  
Marathon Oil Company  
P.O. Box 3128  
Houston, TX 77253-3128

**RE: Indian Basin Remediation Project Report and Proposed Well Plugging Request  
for the Marathon's Indian Basin Gas Plant (GW-21)  
Eddy County, New Mexico**

Dear Mr. Peacock:

The New Mexico Oil Conservation Division (OCD) has reviewed Marathon's report, Evaluation of Natural Attenuation, Indian Basin Remediation Project [IBRP], Eddy County, New Mexico, dated May 12, 2008, and Proposed IBRP Well Plugging Program [Request], dated February 5, 2009. The report and request are substantially acceptable to the OCD. Therefore, the OCD hereby conditionally approves the discontinuance of active remediation at the above-referenced site.

However, at least annual groundwater monitoring for BTEX, TDS and chloride at the 13 proposed wells as specified in the Well Plugging Request plus at an additional two groundwater monitoring wells, MW-81 and MW-113, for a total of 15 wells must continue unless otherwise approved by the OCD. Also, at least semi-annually gauging of depth to groundwater and non-aqueous phase liquid thickness at these 15 wells must continue unless otherwise approved by the OCD. Marathon must continue to submit an annual groundwater monitoring report to the OCD unless otherwise approved by the OCD.

In addition, the material used to plug the 98 (the 100 proposed minus the 2 rejected) groundwater monitoring wells as specified in the Request must be a cement grout with 1% to 3% bentonite. Please submit to the OCD a final plugging report within 180 days of receipt of this letter.

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Oil Conservation Division \* 1220 South St. Francis Drive  
\* Santa Fe, New Mexico 87505  
\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>

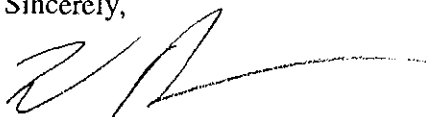


M. Paul Peacock  
GW-21  
February 20, 2009  
Page 2

Please be advised that OCD approval of this report and request does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Edward Hansen of my staff at 505-476-3489 or [edwardj.hansen@state.nm.us](mailto:edwardj.hansen@state.nm.us).

Sincerely,



Wayne Price  
Environmental Bureau Chief

WP:EJH:ejh

cc: OCD; Artesia District Office  
Terry Persaud, P.E., Marathon Oil Company, P.O. Box 3128, Houston, TX 77253-3128

---

**From:** Hansen, Edward J., EMNRD [mailto:edwardj.hansen@state.nm.us]  
**Sent:** Wednesday, June 17, 2009 12:42 PM  
**To:** Persaud, Terry  
**Cc:** Caudill, Ted L.; Kurki, Vijay K.; Newman, Dennis (Houston); alan.reed@arcadis-us.com; Lowe, Leonard, EMNRD  
**Subject:** GW-21 Plugging Report Approval

**RE: "Indian Basin Remediation Project Monitoring Well Plugging Report"  
for the Marathon's (now OXY's)  
Indian Basin Gas Plant (GW-21)  
Unit Letter G, Section 23, T21S, R23E, NMPM, Eddy County, New Mexico  
Plugging Report Approval**

Dear Mr. Persaud:

The New Mexico Oil Conservation Division (OCD) has received the groundwater monitoring well plugging report for the Indian Basin Gas Plant (GW-21), dated June 11, 2009, and has conducted a review of the report. The plugging report, submitted for the above-referenced site, indicates that Marathon has met the plugging requirements. Therefore, the OCD hereby approves the plugging report. However, the OCD is anticipating the 2009 annual groundwater monitoring report for the remaining 15 monitoring wells this month.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen  
Hydrologist  
Environmental Bureau

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 592023

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 592023
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
owen.sitler	2021 Annual Groundwater Monitoring Report submission	6/4/2026