



OXY **GLENN SPRINGS HOLDINGS, INC.**

2022 ANNUAL GROUNDWATER MONITORING REPORT

Indian Basin Gas Plant
Eddy County, New Mexico

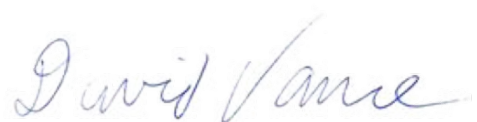
June 2023

2022 Annual Groundwater Monitoring Report



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**2022 ANNUAL
GROUNDWATER
MONITORING REPORT**

Indian Basin Gas Plant

Eddy County, New Mexico

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2022 Annual Groundwater Monitoring Report

CONTENTS

Acronyms and Abbreviations	iii
Executive Summary	1
Introduction	2
Background	2
Groundwater and Condensate Gauging	3
Shallow Zone Aquifer	3
Lower Queen Aquifer	4
Precipitation Recharge	4
Groundwater Sampling and Analysis	5
Shallow Zone Aquifer	5
BTEX Analysis	5
Wet Chemistry Analysis	6
Lower Queen Aquifer	6
BTEX Analysis	6
Wet Chemistry Analysis	7
Summary	7
Groundwater Monitoring	7
Groundwater Monitoring Plan	7

TABLES

- Table 1. Groundwater Monitoring Plan
- Table 2. Summary of Groundwater Gauging Results, June 2022
- Table 3. Summary of Groundwater Gauging Results, November 2022
- Table 4. Summary of Historical Rainfall
- Table 5. Summary of Analytical Results, June 2022

2022 Annual Groundwater Monitoring Report

FIGURES

Figure 1. Site Location Map

Figure 2. Site Layout

Figure 3. Shallow Zone Groundwater Elevation Contours June 2022

Figure 4. Lower Queen Groundwater Elevation Contours June 2022

Figure 5. Shallow Zone BTEX, Chloride, and TDS June 2022

Figure 6. Lower Queen BTEX, Chloride, and TDS June 2022

Figure 7. Shallow Zone Groundwater Elevation Contours November 2022

Figure 8. Lower Queen Groundwater Elevation Contours November 2022

APPENDICES

A Historic Groundwater Elevations

B Historical Analytical Data

C Laboratory Analytical Reports

D Laboratory Data Validation Report

E NMOCD Correspondence

2022 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

2022 Annual Groundwater Monitoring Report

EXECUTIVE SUMMARY

This report documents the results for the June 2022 annual groundwater monitoring event and the November 2022 semi-annual gauging event and provides historical groundwater monitoring documentation. The 2022 annual groundwater monitoring event was conducted on June 23, 24 and 27, 2022 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 November 11, 2022, 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 2022 and November 2022 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 were 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 0.0144 ft/ft, and flow in the Lower Queen is generally to the northwest at an approximate gradient of 0.005 ft/ft.

In June 2022, 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 concentration of benzene (below the NMOCD regulatory limits) was detected in MW-49 at 4.1 micrograms per liter ($\mu\text{g/L}$). 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 the NMOCD regulatory limits. The TDS in MW-45 (6,480 mg/L) and MW-49 (4,050 mg/L) exceeded the NMOCD regulatory limit of 1,000 mg/L. Chloride in MW-45 (313 mg/L), MW-49 (343 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, except MW-88 which had TDS of 1,020 mg/L (slightly above the NMOCD standard).

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 2023 and the semi-annual groundwater gauging event will be conducted in November 2023. An annual report will be prepared at the conclusion of each Fall groundwater gauging event and will be submitted to the NMOCD.

2022 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 2022 annual groundwater monitoring event, the semi-annual groundwater gauging event conducted in November 2022 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 two 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

2022 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 currently 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 2022 and November 2022. 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 (rainfall) are discussed in the following sections. A summary of the June 2022 groundwater gauging results is provided in Table 2. The November 2022 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 2022 and November 2022 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 December 2021 to June 2022, groundwater elevations (including density corrections for condensate, if present) increased in Shallow Zone wells MW-46 (1.82 ft.), MW-77 (1.16 ft.) and MW-106 (0.19 ft.). The groundwater elevations decreased from December 2021 to June 2022 for Shallow Zone wells MW-14 (1.4 ft.), MW-45 (2.35 ft.), MW-46 (1.64 ft.), MW-49 (1.86 ft.) and MW-126 (39.62 ft.). During the June 2022 event, measurable condensate thickness (0.12 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 November 2022, groundwater elevations (including density corrections for condensate, if present) increased in Shallow Zone wells MW-14 (0.81 ft.), MW-45 (1.52 ft.), MW-46 (1.82 ft.), MW-49 (0.58 ft.) and MW-126 (25.57 ft.). The groundwater elevation in MW-77 and MW-106 decreased from June to November 2022 by 4.48 feet and 0.74 ft., respectively. During the November 2022 water level gauging event, measurable condensate was detected in one Shallow Zone monitoring well MW-126. The condensate thickness measured in MW-126 was 0.44 feet. Condensate was not detected in any other Shallow Zone well in June or November 2022.

Groundwater elevation contour maps were prepared based on the June 2022 and November 2022 groundwater elevation data (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 0.0144 ft./ft. The flow direction and gradient are generally consistent with historical patterns.

2022 Annual Groundwater Monitoring Report

Lower Queen Aquifer

The eight monitoring wells completed in the Lower Queen were gauged during the June and November 2022 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 2022 gauging event, trace condensate was observed in Lower Queen monitoring well MW-113. MW-58 and MW-81 had condensate thicknesses of 0.15 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 latter part of 2015 to the most recent gauging event in 2022. 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 November 2022 gauging event, trace condensate was observed in monitoring wells MW-58, MW-81 and MW-113.

From December 2021 to June 2022, the groundwater elevation (including density corrections for condensate, if present) increased in Lower Queen monitoring well MW-66 by 2.42 feet. The groundwater elevation decreased in the other seven Lower Queen monitoring wells MW-58 (4.95 ft.), MW-70 (1.43 ft.), MW-81 (1.43 ft.), MW-88 (3.32 ft.), MW-111 (1.38 ft.), MW-113 (1.00 ft) and MW-127 (1.27 ft.).

From June to November 2022, groundwater elevations (including density corrections for condensate, if present) increased in Lower Queen monitoring wells MW-58 (1.99 ft.), MW-70 (0.03 ft.), MW-81 (0.40 ft.), MW-88 (2.29 ft.), MW-111 (0.12 ft.) and MW-113 (0.05 ft.). The groundwater elevations in MW-66 and MW-127 decreased from June to November 2022 by 0.01 feet and 0.17 ft., respectively.

Groundwater elevation contour maps were prepared based on the June and November 2022 groundwater elevation data (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 0.005 ft./ft. The flow direction and gradient are generally consistent with historical patterns.

Precipitation Recharge

Table 4 summarizes monthly rainfall for the area during 2022 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 2022, 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 (2018 to 2022) is approximately 10.85 inches which is slightly above the long-term average for the area of approximately 11.13 inches per year. During 2022, data from the Carlsbad station indicated that the highest amount of precipitation was received in August (2.64 inches) with a total of 10.15 inches reported for the year (0.981 inches above the long-term average). The 4.40 inches of total rainfall in 2020 was the lowest recorded in the last 12 years (5.84 inches were recorded in 2011).

In general, water levels in both the Shallow Zone and the Lower Queen seem to rise in the Fall months and decline in the Spring / Summer months which corresponds to the observed rainfall pattern of greater amount of rainfall / precipitation in the second half of the year than the first.

2022 Annual Groundwater Monitoring Report

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 2022 annual groundwater sampling event at the site on June 23, June 24 and June 27, 2022. 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-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 2022 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 2022 is presented in Appendix C. GHD performed the data validation of the laboratory data for the June 2022 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 2022 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 two of the three monitoring wells sampled (MW-45 and MW-106).
- Benzene was detected below the MNOCD standard of 10 µg/L in the June 2022 sample from MW-49. The detected concentration was 4.1 µg/L. Benzene was not detected in this well in the previous sampling event in June 2021, but a concentration of 15.4 µg/L was detected in this well in the June 2020 sampling event (above the NMOCD regulatory limit of 10 µg/L).
- Except for a very low concentration of xylenes (0.00066 µg/L) detected in MW-49, BTEX was not detected in any of the Shallow Zone monitoring wells for the June 2022 sampling event.

Figure 5 illustrates the distribution of dissolved BTEX compounds in the Shallow Zone aquifer in June 2022. As indicated by the historical data in Appendix B, BTEX concentrations in this water-bearing zone have generally remained stable or declined over time.

2022 Annual Groundwater Monitoring Report

Wet Chemistry Analysis

In addition to BTEX analysis, groundwater samples collected in June 2022 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 (428 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 (6,480 mg/L) was slightly above the prior historical range (2,540 to 5,990 mg/L) for this well. The TDS concentration in MW-49 (4,050 mg/L) was within the historical range of 2,600 mg/L to 5,220 mg/L recorded for this well.
- As mentioned earlier, MW-14 and MW-46 were not sampled during the June 2022 sampling event because they did not contain enough water for sample collection. These two monitoring wells were also not sampled in June 2021 for the same reason. For the 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 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 (3.08 mg/L) was below the NMOCD standard and within the historical range.
- Chloride concentration was detected above the NMOCD standard in MW-45 (313 mg/L) which represents a decrease in concentration from 497 mg/L in 2021. The chloride concentrations in MW-45 were consistently below the NMOCD standard from 2011 to 2020 but were consistently above it (ranging up to 507 mg/L, except for 2009) based on the available data for 1991 through 2010.
- The chloride concentration in MW-49 was 343 mg/L which represents a slight increase in concentration from 316 mg/L in 2021. The chloride concentration was 491 mg/L in 2020.

A summary of the TDS and chloride analytical results is provided in Table 5. Appendix B contains a summary of the historical chloride and TDS data. 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 2022.

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 2022. Samples were not collected from MW-58, MW-81, and MW-113 because they contained condensate. No BTEX was detected in any of the five sampled Lower Queen monitoring wells. In 2021, 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 2022.

2022 Annual Groundwater Monitoring Report

Wet Chemistry Analysis

In addition to BTEX analysis, groundwater samples were collected in June 2022 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, except MW-88 for which a TDS of 1,020 mg/L was detected. The TDS in MW-88 was 884 mg/L in 2021 and historically has been less than 1,000 mg/L except in June 2018 and June 2022. For the June 2022 sampling event, the TDS concentrations for the Lower Queen monitoring wells ranged from 388 mg/L in MW-70 to 1,020 mg/L in MW-88.
- Chloride concentrations were well below the NMOCD standard of 250 mg/L in all five samples collected from the Lower Queen monitoring wells. The chloride concentrations ranged from 9.84 mg/L in MW-70 to 33.9 mg/L in MW-111.

A summary of the laboratory analysis data for TDS and chloride is provided in Table 5. Appendix B contains a summary of the historical TDS and chloride data. 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 2022.

SUMMARY

Groundwater Monitoring

Results of the annual groundwater monitoring event conducted in June 2022 and the groundwater gauging event conducted in November 2022 indicated similar groundwater conditions present as in prior years. Wells containing measurable condensate in June and November 2022 were consistent with historical results. Analytical results for BTEX, chloride and TDS were similar to the historical data for the sampled wells. MW-70 (in the 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, 431 mg/L in 2021 and 388 mg/L in 2022 which are consistent with the longer-term historical data. The TDS of 1,020 mg/L in MW-88 was slightly above the NMOCD standard of 1,000 mg/L and above the historical TDS range for this well. In 2021, the benzene and toluene concentrations in MW-70 were above recent historical concentrations but were not detected in the 2022 sampling event.

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 2022 is planned to be conducted in June

2022 Annual Groundwater Monitoring Report

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 2024.

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 2022
Semi-Annual Groundwater Gauging Event
OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well Number	Well Diameter (in)	Northing NAD 27 Con hddd,mm',ss.s"	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
Shallow Zone													
MW-14	4	32 27 44.3	104 34 00.9	24.11	3803.61	2.08	22.96	---	---	---	---	3780.65	
MW-45	2	32 28 01.1	104 34 08.7	NR	3808.68	1.60	21.57	---	---	---	---	3787.11	
MW-46	4	32 27 56.7	104 34 05.8	19.73	3805.54	1.90	19.44	---	---	---	---	3786.10	
MW-49	2	32 27 57.6	104 33 59.9	NR	3805.61	1.90	21.94	---	---	---	---	3783.67	
MW-77	7.875	32 27 27.3	104 33 25.0	NR	3775.48	2.38	76.04	---	---	---	---	3699.44	
MW-106	4	32 26 57.0	104 32 26.4	NR	3721.97	2.61	88.60	---	---	---	---	3633.37	
MW-126	4	32 27 48.2	104 33 49.9	NR	3796.28	3.33	88.93	88.49	0.44	0.32	88.61	3707.67	Condensate present
Lower Queen													
MW-58	7.875	32 28 04.5	104 33 28.5	NR	3824.07	3.48	201.02	200.87	0.15	0.11	200.91	3623.16	Condensate present
MW-66	4	32 28 19.1	104 33 28.5	NR	3828.98	2.60	203.99	---	---	---	---	3624.99	
MW-70	4	32 27 18.8	104 34 05.5	NR	3822.57	2.71	196.55	---	---	---	---	3626.02	
MW-81	7.875	32 28 04.3	104 33 19.5	NR	3817.03	3.98	190.95	190.91	0.04	0.03	190.92	3626.11	Condensate present
MW-88	4	32 28 25.3	104 32 55.6	NR	3789.70	2.71	166.88	---	---	---	---	3622.82	
MW-111	4	32 28 15.9	104 34 06.1	NR	3824.44	1.85	199.70	---	---	---	---	3624.74	
MW-113	7.875	32 27 16..3	104 33 32.1	NR	3772.67	1.82	146.49	146.49	0.00	0.00	146.49	3626.18	Trace condensate
MW-127	8.25	32 28 00.8	104 33 58.8	NR	3825.17	2.63	199.98	---	---	---	---	3625.19	

Foot Notes: TOC
DTW
DTP

Top of Casing
Depth to Water
Depth to Product

PT
ADJ DTW
WL

Product Thickness
Adjusted Depth to Water
Water Level

Table 3. Summary of Groundwater Gauging Results, November 2022
Semi-Annual Groundwater Gauging Event
OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well Number	Well Diameter (in)	Northing NAD 27 Con hddd,mm',ss.s"	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
Shallow Zone													
MW-14	4	32 27 44.3	104 34 00.9	N/R	3803.61	2.08	22.15	---	---	---	---	3781.46	
MW-45	2	32 28 01.1	104 34 08.7	N/R	3808.68	1.60	20.05	---	---	---	---	3788.63	
MW-46	4	32 27 56.7	104 34 05.8	N/R	3805.54	1.90	17.62	---	---	---	---	3787.92	
MW-49	2	32 27 57.6	104 33 59.9	N/R	3805.61	1.90	21.36	---	---	---	---	3784.25	
MW-77	7.875	32 27 27.3	104 33 25.0	N/R	3775.48	2.38	80.52	---	---	---	---	3694.96	
MW-106	4	32 26 57.0	104 32 26.4	N/R	3721.97	2.61	89.34	---	---	---	---	3632.63	
MW-126	4	32 27 48.2	104 33 49.9	N/R	3796.28	3.33	63.69	63.54	0.15	0.11	63.58	3732.70	Condensate present
Lower Queen													
MW-58	7.875	32 28 04.5	104 33 28.5	N/R	3824.07	3.48	198.92	---	---	---	---	3625.15	Trace condensate
MW-66	4	32 28 19.1	104 33 28.5	N/R	3828.98	2.60	204.00	---	---	---	---	3624.98	
MW-70	4	32 27 18.8	104 34 05.5	N/R	3822.57	2.71	196.52	---	---	---	---	3626.05	
MW-81	7.875	32 28 04.3	104 33 19.5	N/R	3817.03	3.98	190.52	---	---	---	---	3626.51	Trace condensate
MW-88	4	32 28 25.3	104 32 55.6	N/R	3789.70	2.71	164.59	---	---	---	---	3625.11	
MW-111	4	32 28 15.9	104 34 06.1	N/R	3824.44	1.85	199.82	---	---	---	---	3624.62	
MW-113	7.875	32 27 16.3	104 33 32.1	N/R	3772.67	1.82	146.44	---	---	---	---	3626.23	Trace condensate
MW-127	8.25	32 28 00.8	104 33 58.8	N/R	3825.17	2.63	200.15	---	---	---	---	3625.02	

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

Table 4. Summary of Historical Rainfall with Monthly Rainfall During 2022
 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*
2022	10.15*
Monthly Rainfall During 2022	
Month	Rainfall (inches)
January	0.03
February	2.02
March	0.01
April	0.00
May	0.00
June	1.69
July	0.64
August	2.64
September	0.95
October	1.07
November	0.95
December	0.15
2022 Annual Total	10.15

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 2022
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)	Chloride (mg/L)	TDS (mg/L)
OCD Regulatory Limits		10	750	750	620	250	1,000
Shallow Zone Wells							
MW-14		Not Sampled - not enough water to collect sample					
MW-45	6/23/2022	<0.20	<0.20	<0.30	<0.30	313	6,480
MW-46		Not Sampled - not enough water to collect sample					
MW-49	6/23/2022	4.1	<0.20	<0.30	0.66 J	343	4,050
MW-77		Not Sampled - not enough water to collect sample					
MW-106	6/24/2022	<0.20	<0.20	<0.30	<0.30	3.08	428
MW-126		Not Sampled - well contained condensate					
Lower Queen Wells							
MW-58		Not Sampled - well contained condensate					
MW-66	6/24/2022	<0.20	<0.20	<0.30	<0.30	8.34	836
MW-70	6/24/2022	<0.20	<0.20	<0.30	<0.30	9.84	388
MW-81		Not Sampled - well contained condensate					
MW-88	6/23/2022	<0.20	<0.20	<0.30	<0.30	26.1	1,020
MW-111	6/24/2022	<0.20	<0.20	<0.30	<0.30	33.9	768
MW-113		Not Sampled - well contained condensate					
MW-127	6/27/2022	<0.20	<0.20	<0.30	<0.30	32.1	528

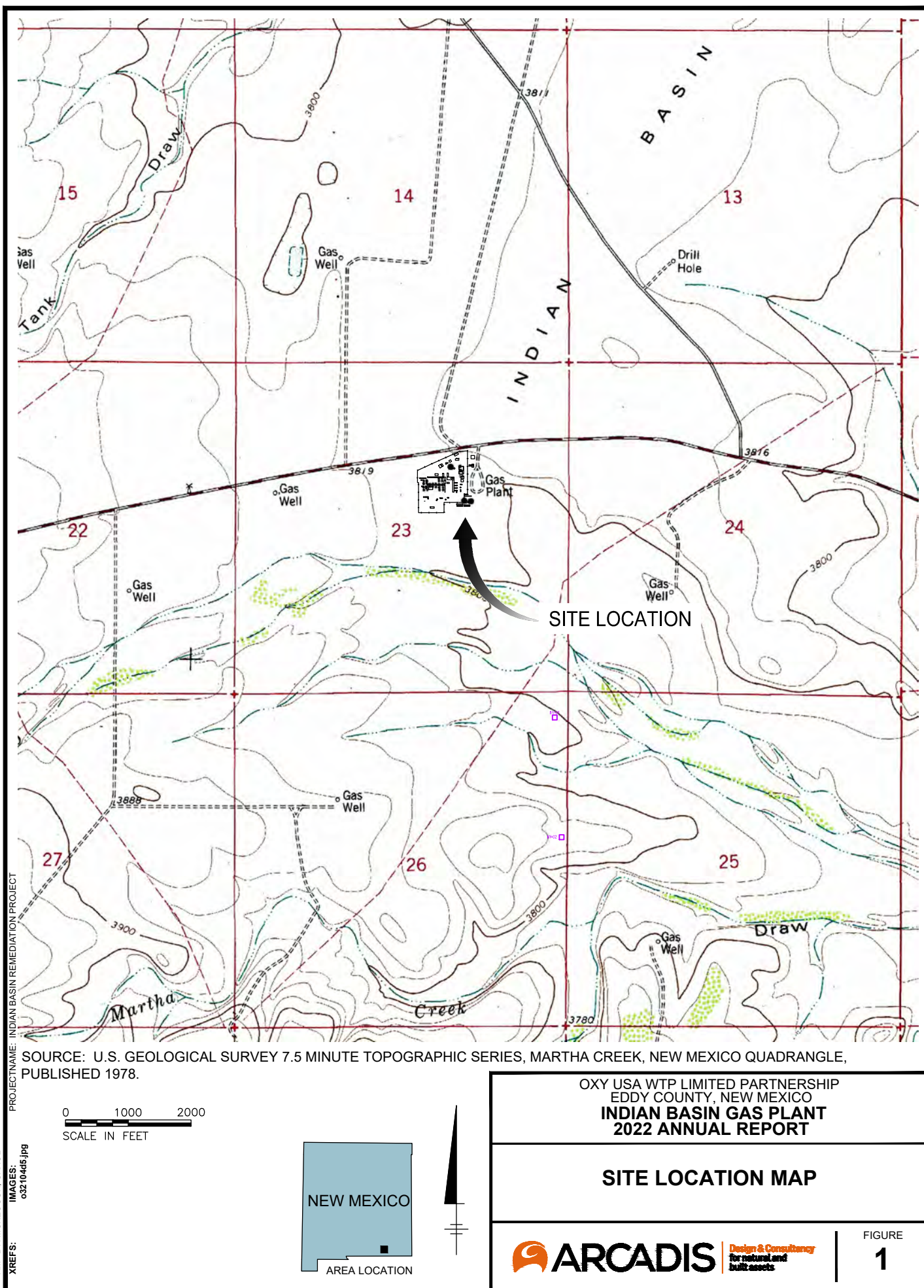
Notes:

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

FIGURES



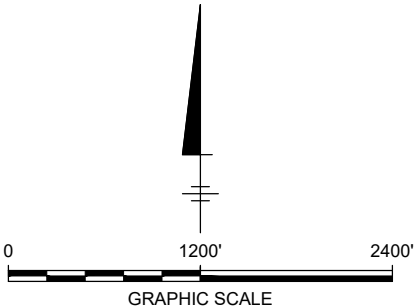
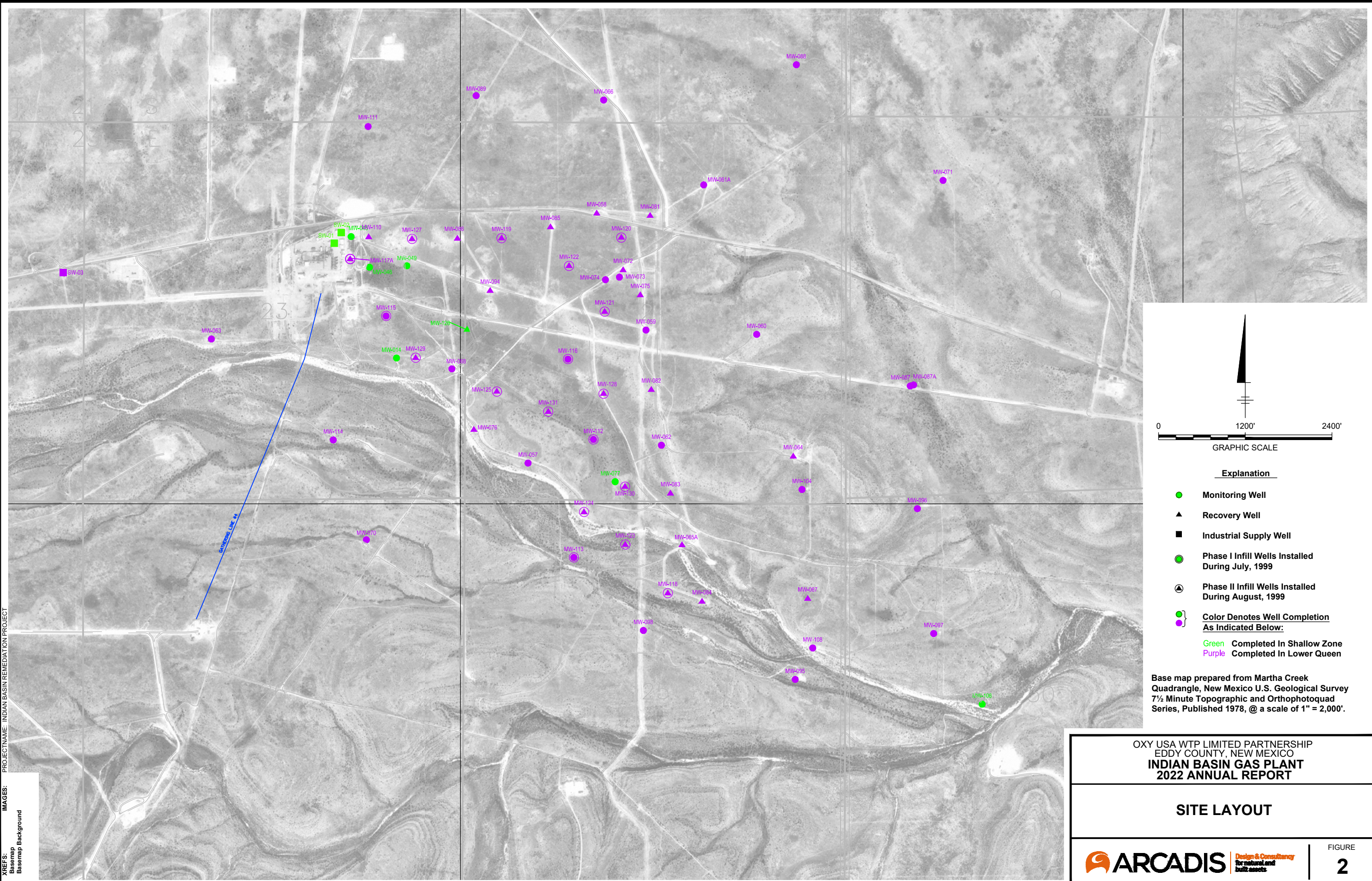
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XREFS: IMAGES: PROJECTNAME: INDIAN BASIN REMEDIATION PROJECT

Basemap Background



Explanation

- Monitoring Well
- Recovery Well
- Industrial Supply Well
- Phase I Infill Wells Installed During July, 1999
- Phase II Infill Wells Installed During August, 1999
- Color Denotes Well Completion As Indicated Below:
 - Green Completed In Shallow Zone
 - Purple Completed In Lower Queen

Base map prepared from Martha Creek Quadrangle, New Mexico U.S. Geological Survey 7½ Minute Topographic and Orthophotoquad Series, Published 1978, @ a scale of 1" = 2,000'.

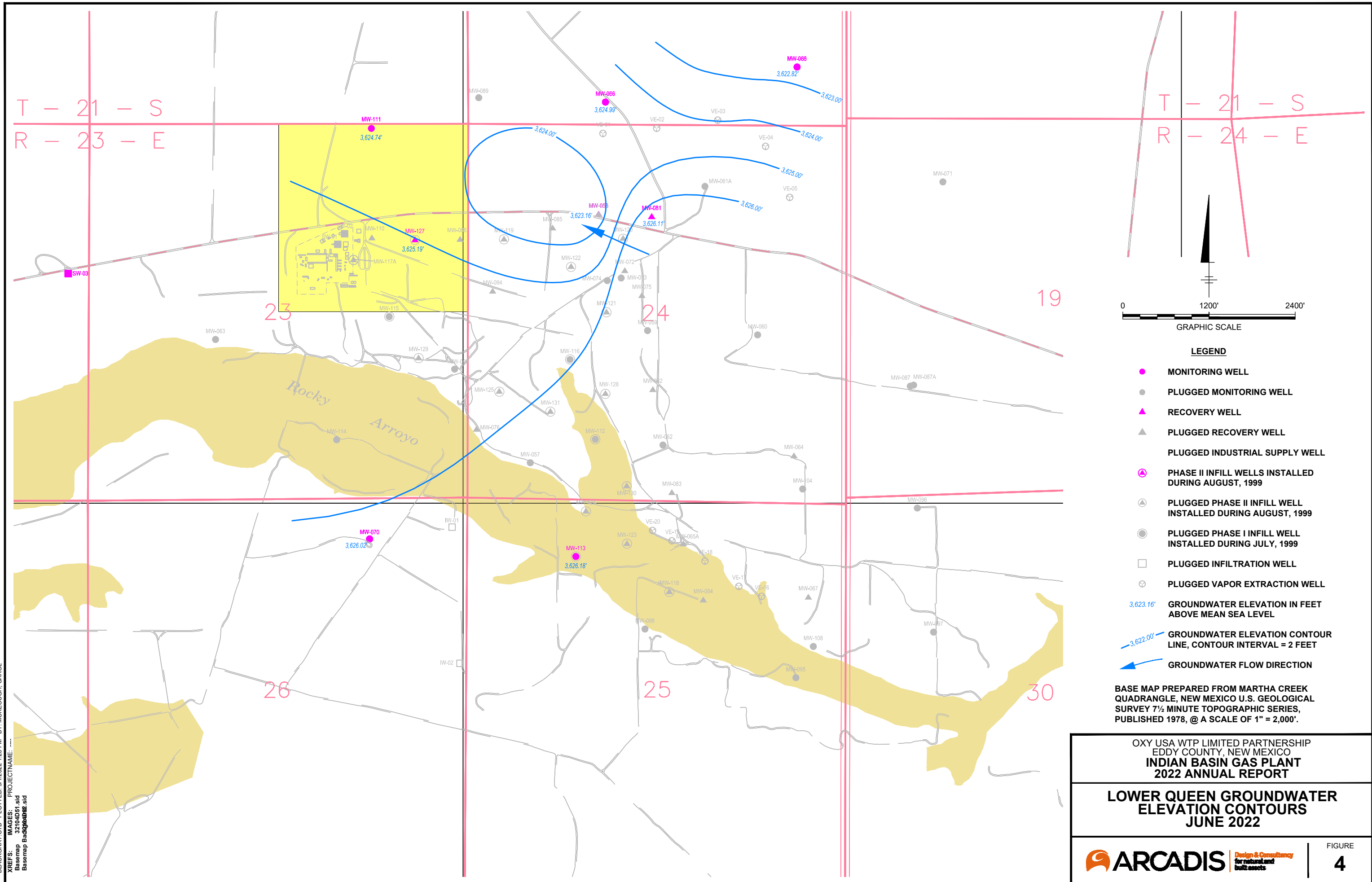
OXY USA WTP LIMITED PARTNERSHIP
EDDY COUNTY, NEW MEXICO
INDIAN BASIN GAS PLANT
2022 ANNUAL REPORT

SITE LAYOUT

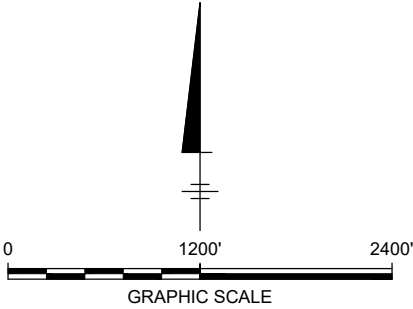
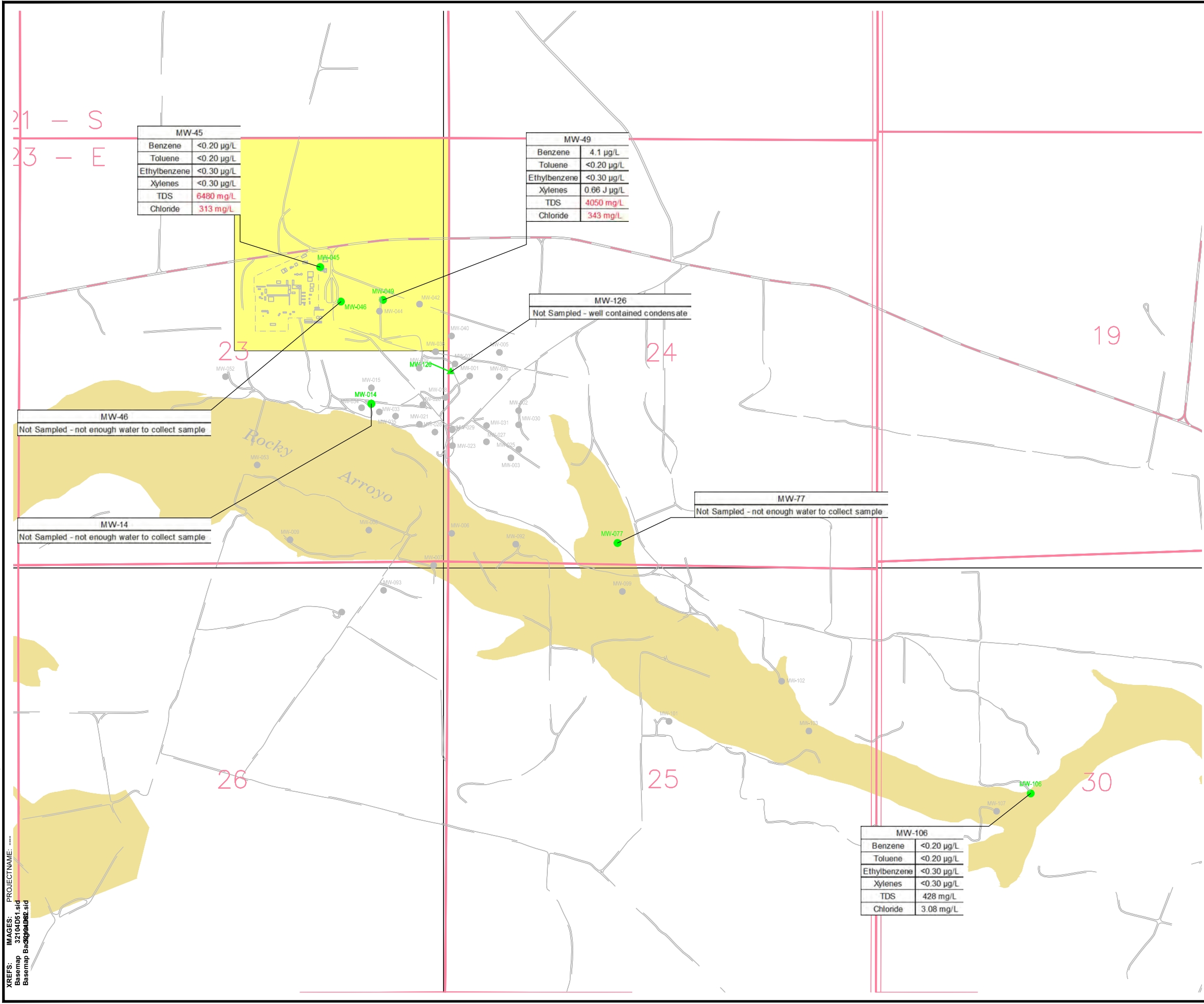


FIGURE
2





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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

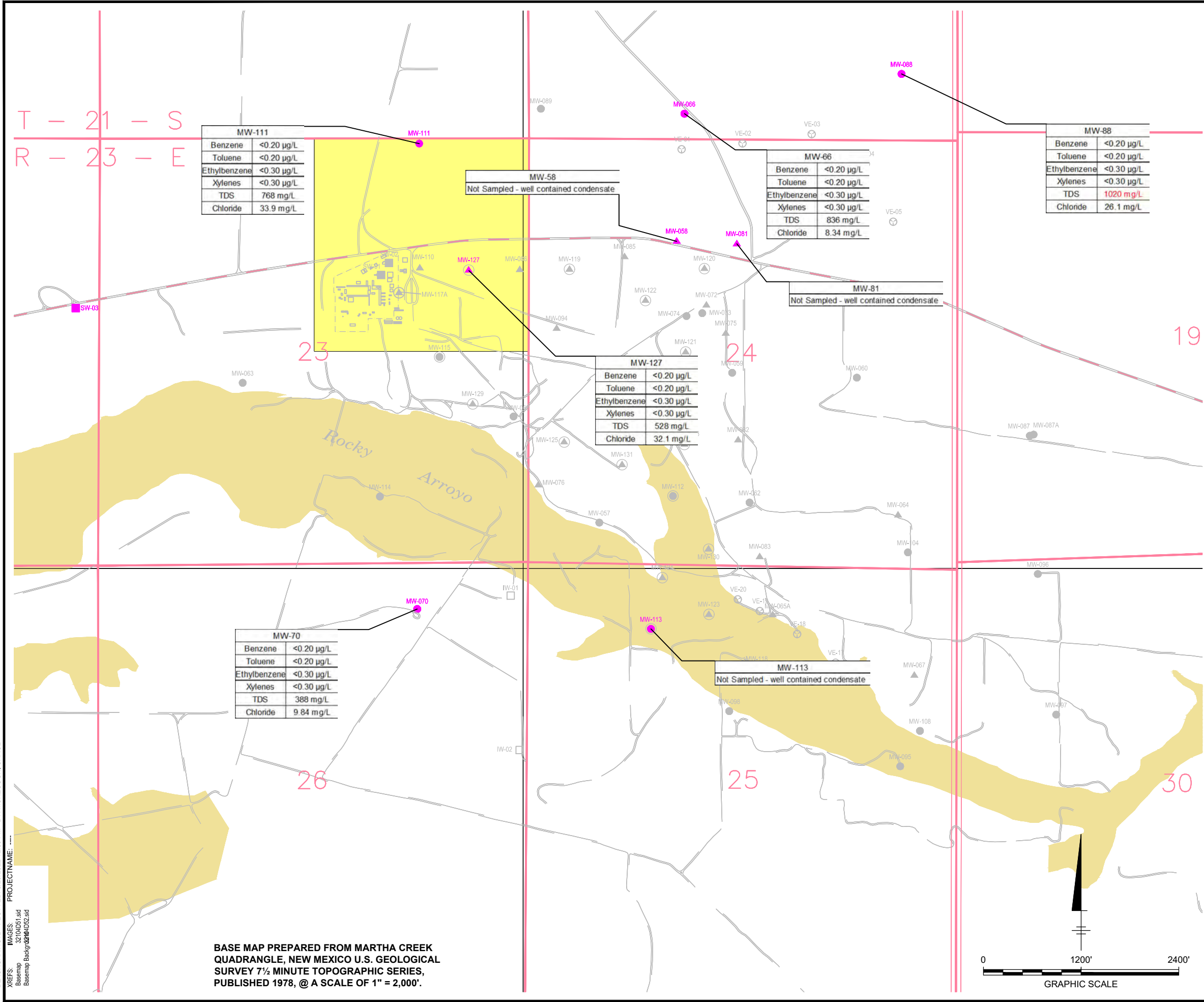
BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

OXY USA WTP LIMITED PARTNERSHIP
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INDIAN BASIN GAS PLANT
2022 ANNUAL REPORT

SHALLOW ZONE BTEX,
CHLORIDE, AND TDS
JUNE 2022



CITY: Milwaukee, WI GROUP: ENV DE: C. McKeeough, LD: PIC: M. Sanford, PM: H. McConnell, TM: A. Sides, TR: LYRONK=OFF=REF* UN: 31-009-00471
C:\Users\cmckeeough\ACCDocs\Arcadis\AUS-OXY USA-INDIAN BASIN\EDDY COUNTY New Mexico\Project Files\202201-In Progress\01-DWG\6-LOWER QUEEN ANALYTICAL 0622.dwg LAYOUT: 6 SAVED: 8/23/2022 12:11 PM ACADVER: 24.0S PAGES: 10 PLOTSTYLE: LTABLE: BLACKGRAY.CTB PLOTTED: 8/23/2022 12:59 PM BY: MCKEOUGH, CAROL



- 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

	WELL ID
Benzene	<1 µg/L
Toluene	<1 µg/L
Ethylbenzene	<1 µg/L
Xylenes	<3 µg/L
TDS	793
Chloride	7.6

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

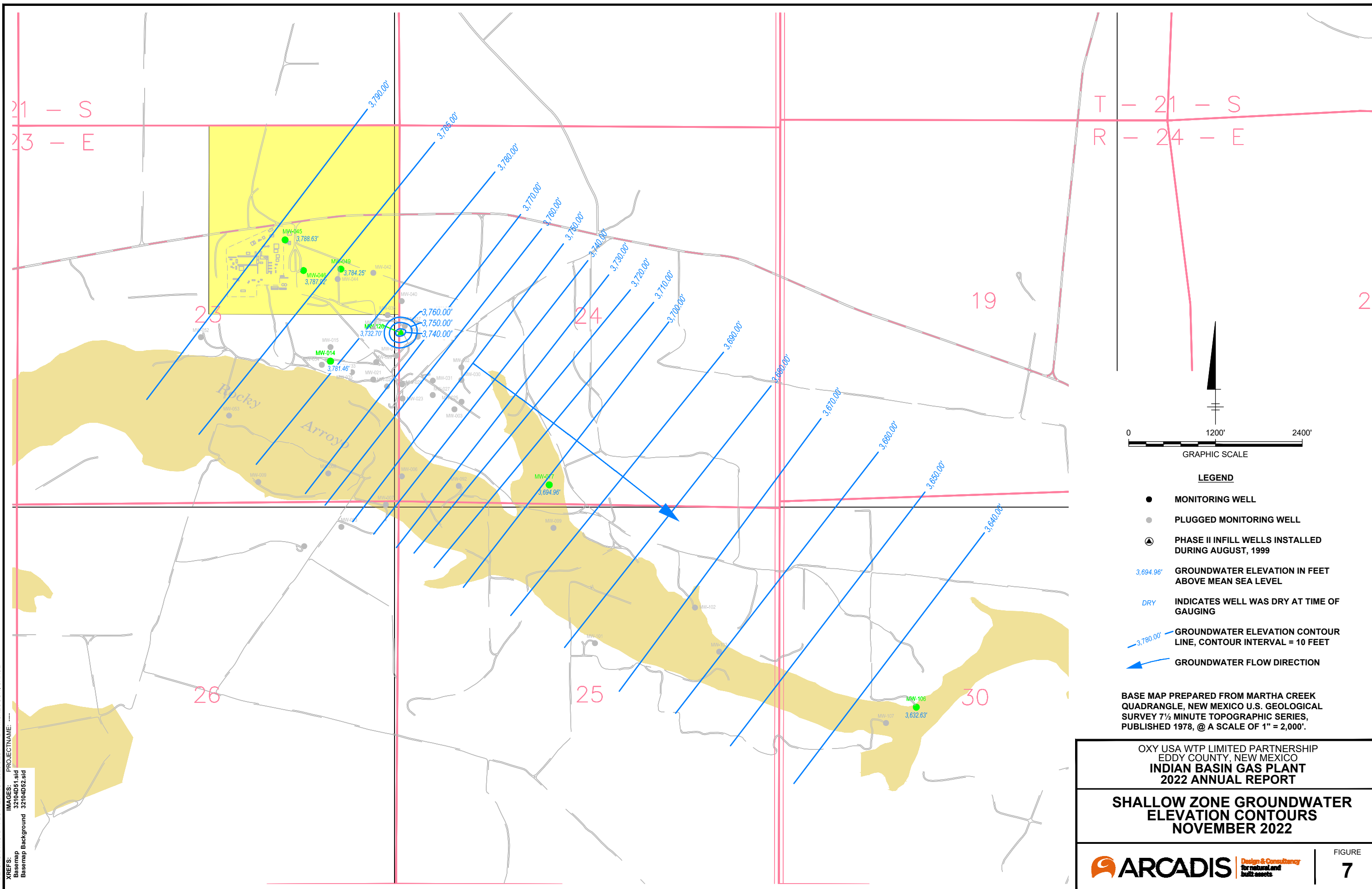
BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

OXY USA WTP LIMITED PARTNERSHIP
EDDY COUNTY, NEW MEXICO
**INDIAN BASIN GAS PLANT
2022 ANNUAL REPORT**

**LOWER QUEEN BTEX,
CHLORIDE, AND TDS
JUNE 2022**

ARCADIS | Design & Consultancy
for natural and built assets

FIGURE
6





APPENDIX A

Historic Groundwater Elevations



Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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)
Shallow Zone Wells					
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	0	3782.05
MW-14	6/23/2022	3803.61	22.96	0	3780.65
MW-14	11/1/2022	3803.61	22.15	0	3781.46

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

Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 2 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-45	12/1/1991	3808.68	13.91	0	3794.77
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

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

Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 3 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-45	12/6/2021	3809.68	19.22	0	3789.46
MW-45	6/23/2022	3809.68	21.57	0	3788.11
MW-45	11/1/2022	3809.68	20.05	0	3789.63
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

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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 4 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
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
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
MW-46	6/23/2022	3805.54	19.44	0	3786.10
MW-46	11/1/2022	3805.54	17.62	0	3787.92
MW-49	12/1/1991	3805.61	16.60	0	3789.01
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

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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 5 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-49	4/5/2004	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
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
MW-49	6/23/2022	3805.61	21.94	0	3783.67
MW-49	11/1/2022	3805.61	21.36	0	3784.25
MW-77	1/1/1995	3775.48	80.03	0	3695.45
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

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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 6 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
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
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
MW-77	6/23/2022	3775.48	76.04	0	3699.44
MW-77	11/1/2022	3775.48	80.52	0	3694.96
MW-106	2/4/1997	3721.97	87.97	0	3634.00
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

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Historic Fluid Level Data

May 1991 - December 2022

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

Page 7 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-106	4/27/1998	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
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
MW-106	6/23/2022	3721.97	88.60	0	3633.37
MW-106	11/1/2022	3721.97	89.35	0	3632.62
MW-126	1/5/2000	3795.58	53.08	0	3742.50
MW-126	4/26/2000	3795.58	54.03	0	3741.55

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Historic Fluid Level Data

May 1991 - December 2022

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

Page 8 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
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
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
MW-126	6/23/2022	3796.28	88.93	0.44	3707.67
MW-126	11/1/2022	3796.28	63.69	0.15	3732.70

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	--	--

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

Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 9 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
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
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

D = Dry
NA = Not Available
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NR = No Record

Appendix A

Page 10 of 19

Historic Fluid Level Data

May 1991 - December 2022

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	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
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
MW-58	6/23/2022	3824.07	201.02	0.15	3623.16
MW-58	11/1/2022	3824.07	198.92	0	3625.15
MW-66	8/21/1991	3828.98	196.77	0	3632.21
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

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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 11 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
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
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

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Appendix A

Page 12 of 19

Historic Fluid Level Data

May 1991 - December 2022

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	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
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
MW-66	6/23/2022	3828.98	203.99	0	3624.99
MW-66	11/1/2022	3828.98	204.00	0	3624.98
MW-70	9/18/1991	3822.57	191.59	0	3630.98
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

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Appendix A

Page 13 of 19

Historic Fluid Level Data

May 1991 - December 2022

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	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
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

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Appendix A

Page 14 of 19

Historic Fluid Level Data

May 1991 - December 2022

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	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
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
MW-70	6/23/2022	3822.57	196.55	0	3626.02
MW-70	11/1/2022	3822.57	196.52	0	3626.05
MW-81	10/1/1995	3817.03	195.77	2.74	3623.26
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

D = Dry
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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 15 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
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
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

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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 16 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-81	12/6/2021	3817.03	189.56	0.09	3627.54
MW-81	6/23/2022	3817.03	190.95	0.04	3626.11
MW-81	11/1/2022	3817.03	190.52	0	3626.51
MW-88	8/1/1996	3789.70	163.59	0	3626.11
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
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

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Appendix A

Page 17 of 19

Historic Fluid Level Data

May 1991 - December 2022

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	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
MW-88	6/23/2022	3789.70	166.88	0	3622.82
MW-88	11/1/2022	3789.70	164.59	0	3625.11
MW-111	6/19/1998	3824.44	200.24	0	3624.20
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
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

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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 18 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
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
MW-111	6/23/2022	3824.44	199.70	0	3624.74
MW-111	11/1/2022	3824.44	199.82	0	3624.62
MW-113	1/5/2000	3772.67	147.43	0	3625.24
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	--	--
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
MW-113	6/23/2022	3772.67	146.49	0	3626.18

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Appendix A

Historic Fluid Level Data

May 1991 - December 2022

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

Page 19 of 19

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-113	11/1/2022	3772.67	146.44	0	3626.23
MW-127	1/5/2000	3825.17	202.12	0	3623.05
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
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
MW-127	6/23/2022	3825.17	199.98	0	3625.19
MW-127	11/1/2022	3825.17	200.15	0	3625.02

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

Page 1 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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-14	09/01/91	5100	--	--	--
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			
MW-14	06/23/22	Not Sampled - not enough water to collect sample			
MW-45	06/01/91	<1	--	--	--
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
MW-45	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-46	06/01/91	3200	--	--	--
MW-46	06/22/91	--	<50	900	<50
MW-46	07/01/91	300	--	--	--
MW-46	07/19/91	--	<50	250	--

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

Page 2 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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	07/30/91	--	--	--	250
MW-46	09/01/91	140	--	--	--
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
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			
MW-46	06/23/22	Not Sampled - not enough water to collect sample			
MW-49	06/01/91	60	--	--	--
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

Notes:

Concentrations listed in micrograms per liter (ug/L)

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Appendix B

Page 3 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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-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
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
MW-49	06/23/22	4.1	<0.20	<0.30	0.66 J
MW-58	09/01/91	40	--	--	--
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			

Notes:

Concentrations listed in micrograms per liter (ug/L)

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-- Indicates parameter was not analyzed

Appendix B

Page 4 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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-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			
MW-58	06/23/22	Not Sampled - Condensate Present			
MW-66	09/01/91	<1	--	--	--
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
MW-66	04/21/99	<5	<5	<5	<10
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

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

Page 5 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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	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
MW-66	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-70	09/01/91	<1	--	--	--
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
MW-70	06/30/11	<1	<1	<1	<3
MW-70	06/28/12	<1	<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

Page 6 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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-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
MW-70	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-77	07/21/95	<0.5	<0.5	1.9	2.8
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			
MW-77	06/23/22	Not Sampled - not enough water to collect sample			
MW-81	06/29/98	<1	<1	<1	1.5
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			
MW-81	06/23/22	Not Sampled - Condensate Present			

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

Page 7 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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	08/01/96	<0.5	1.1	0.5	1
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
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
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
MW-88	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-106	02/11/97	<0.5	<0.5	<0.5	<0.5
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

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

Page 8 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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-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
MW-106	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-111	06/29/98	<1	<1	<1	<1
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
MW-111	04/19/06	<2.57	<2.74	<2.03	<5.81
MW-111	04/18/07	<5	<5	<5	<15
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
MW-111	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-113	08/11/99	140	<5	59	390
MW-113	06/27/14	NS - Condensate Present			

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

Page 9 of 17

Historical BTEX Analytical Data, May 1991 - June 2022
 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-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			
MW-113	06/23/22	NS - Condensate Present			
MW-127	12/28/99	190	7.1	38	16
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
MW-127	06/23/22	<0.20	<0.20	<0.30	<0.30

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

Page 10 of 17

Wet Chemistry, 1991 through 2022
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

		Wet Chemistry Analytical Data (mg/L)	
Constituent		Total Dissolved Solids (TDS)	Chloride
New Mexico Standards		1,000	250
Station or Well Name	Sample Collection Date		
MW-014	6/22/1998	<u>1,400</u>	<u>330</u>
MW-014	4/18/2002	<u>1,200</u>	<u>300</u>
MW-014	10/24/2003	<u>1,100</u>	150
MW-014 (Dup 1)	10/24/2003	<u>1,000</u>	140
MW-014	4/25/2005	<u>1,130</u>	230
MW-014 (Dup 1)	4/25/2005	<u>1,100</u>	232
MW-014	4/27/2006	<u>1,110</u>	209
MW-014 (Dup 1)	4/27/2006	<u>1,110</u>	207
MW-014	4/20/2007	<u>1,060</u>	196
MW-014 (Dup 1)	4/20/2007	<u>1,010</u>	194
MW-014	6/25/2014	<u>1,430</u>	61.6
MW-014	4/30/2015	<u>1,320</u>	<u>268</u>
MW-014	5/25/2016	<u>1,400</u>	<u>266</u>
MW-014	7/12/2017	<u>1,610</u>	240
MW-014	6/25/2019	<u>2,530</u>	124
MW-014	6/10/2020	<u>1,360</u>	132
MW-045	6/1/1991	<u>5,440</u>	<u>507</u>
MW-045	9/1/1991	<u>3,920</u>	NA
MW-045	12/1/1991	NA	<u>354</u>
MW-045	7/15/1993	NA	<u>434</u>
MW-045	10/14/1993	NA	<u>408</u>
MW-045	1/13/1994	NA	<u>440</u>
MW-045	4/6/1994	NA	<u>430</u>
MW-045	7/20/1994	NA	<u>429</u>
MW-045	5/29/2009	<u>2,540</u>	174
MW-045	6/23/2010	<u>4,190</u>	<u>473</u>
MW-045	7/1/2011	<u>3,630</u>	208
MW-045	6/28/2012	<u>3,840</u>	<u>314</u>
MW-045	6/25/2014	<u>4,120</u>	98.7
MW-045	4/30/2015	<u>5,990</u>	209
MW-045	5/25/2016	<u>5,400</u>	238
MW-045 (Dup 1)	5/25/2016	<u>5,340</u>	245
MW-045	7/13/2017	<u>5,620</u>	<u>308</u>
MW-045	6/13/2018	<u>5,090</u>	<u>256</u>
MW-045	6/24/2019	<u>5,500</u>	177
MW-045 (Dup 1)	6/24/2019	<u>5,300</u>	127
MW-045	6/10/2020	<u>5,230</u>	150
MW-045	6/22/2021	<u>5,750</u>	<u>497</u>
MW-045	6/23/2022	<u>6,480</u>	<u>313</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

Page 11 of 17

Wet Chemistry, 1991 through 2022
 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-046	6/1/1991	<u>1,220</u>	<u>152</u>
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	<u>1,300</u>	132
MW-046	7/18/1997	NA	180
MW-046	6/21/1998	940	140
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
MW-049	6/1/1991	<u>3,910</u>	<u>365</u>
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>

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

Page 12 of 17

Wet Chemistry, 1991 through 2022
 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-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>
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>
MW-049	6/23/2022	<u>4.050</u>	<u>343</u>
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
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

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

Page 13 of 17

Wet Chemistry, 1991 through 2022
 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-066	12/1/1991	NA	9
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
MW-066	4/7/1994	NA	8.7
MW-066	7/19/1994	NA	<5
MW-066	10/4/94	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
MW-066	6/23/2022	836	8.34

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

Page 14 of 17

Wet Chemistry, 1991 through 2022
 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-070	12/1/1991	NA	10
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
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
MW-070	6/23/2022	388	9.84

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

Page 15 of 17

Wet Chemistry, 1991 through 2022
 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-077	7/21/1995	NA	110
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
MW-081	6/29/1998	800	16
MW-088	2/5/1997	970	30
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
MW-088	6/23/2022	<u>1,020</u>	26.1

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

Page 16 of 17

Wet Chemistry, 1991 through 2022
 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	2/11/1997	430	10
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
MW-106	7/13/2017	364	3.1
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
MW-106	6/23/2022	428	3.08

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

Page 17 of 17

Wet Chemistry, 1991 through 2022
 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-111	6/29/1998	900	100
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
MW-111	6/23/2022	768	33.9
MW-127	5/28/2009	766	77.1
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
MW-127	6/23/2022	528	32.1

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 C

Laboratory Analytical Reports



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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July 08, 2022

Hugh Robotham
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS22061314**

Laboratory Results for: **11129300 Indian Basin**

Dear Hugh Robotham,

ALS Environmental received 4 sample(s) on Jun 24, 2022 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dane J. Wacasey'.

Generated By: JUMOKE.LAWAL

Dane J. Wacasey

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061314

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22061314-01	11129300-TB-062322	Water	CG-061422 -115	23-Jun-2022 00:00	24-Jun-2022 09:30	☐
HS22061314-02	MW-88	Groundwater		23-Jun-2022 06:58	24-Jun-2022 09:30	☐
HS22061314-03	MW-49	Groundwater		23-Jun-2022 10:57	24-Jun-2022 09:30	☐
HS22061314-04	MW-45	Groundwater		23-Jun-2022 12:02	24-Jun-2022 09:30	☐

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061314

CASE NARRATIVE**Work Order Comments**

- The analysis for RSK (CO2) was subcontracted to Pace Analytical in Baton Rouge, LA. Final report attached

GC Semivolatiles by Method RSK-175**Batch ID: R412066**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260**Batch ID: R411668**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020A**Batch ID: 180721****Sample ID: HS22061085-17MS**

- MS and MSD are for an unrelated sample

Batch ID: 180738

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.4.2**Batch ID: R412313**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM5310B**Batch ID: R412181**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C**Batch ID: R411945**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM2320B**Batch ID: R411967****Sample ID: HS22061260-18DUP**

- DUP is for an unrelated sample

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061314

CASE NARRATIVE

WetChemistry by Method E300**Batch ID: R411535****Sample ID: HS22061326-08MS**

- MS and MSD are for an unrelated sample

Sample ID: MW-88 (HS22061314-02MS)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Sulfate)

Batch ID: R411549

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM4500 S2-D**Batch ID: 180763**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: 11129300-TB-062322
Collection Date: 23-Jun-2022 00:00

ANALYTICAL REPORT

WorkOrder:HS22061314
Lab ID:HS22061314-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260					Analyst: AKP
Benzene	U		0.20	1.0	ug/L	1	27-Jun-2022 21:56
Ethylbenzene	U		0.30	1.0	ug/L	1	27-Jun-2022 21:56
Toluene	U		0.20	1.0	ug/L	1	27-Jun-2022 21:56
Xylenes, Total	U		0.30	1.0	ug/L	1	27-Jun-2022 21:56
Surr: 1,2-Dichloroethane-d4	82.3			70-126	%REC	1	27-Jun-2022 21:56
Surr: 4-Bromofluorobenzene	93.9			77-113	%REC	1	27-Jun-2022 21:56
Surr: Dibromofluoromethane	94.4			77-123	%REC	1	27-Jun-2022 21:56
Surr: Toluene-d8	98.7			82-127	%REC	1	27-Jun-2022 21:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-88
 Collection Date: 23-Jun-2022 06:58

ANALYTICAL REPORT

WorkOrder:HS22061314
 Lab ID:HS22061314-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP			
Benzene	U		0.20	1.0	ug/L	1	27-Jun-2022 22:55
Ethylbenzene	U		0.30	1.0	ug/L	1	27-Jun-2022 22:55
Toluene	U		0.20	1.0	ug/L	1	27-Jun-2022 22:55
Xylenes, Total	U		0.30	1.0	ug/L	1	27-Jun-2022 22:55
Surr: 1,2-Dichloroethane-d4	79.9			70-126	%REC	1	27-Jun-2022 22:55
Surr: 4-Bromofluorobenzene	93.5			77-113	%REC	1	27-Jun-2022 22:55
Surr: Dibromofluoromethane	93.3			77-123	%REC	1	27-Jun-2022 22:55
Surr: Toluene-d8	97.5			82-127	%REC	1	27-Jun-2022 22:55
DISSOLVED GASES BY RSK-175		Method:RSK-175		Analyst: PPM			
Methane	7.78		0.107	0.500	ug/L	1	01-Jul-2022 09:30
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 01-Jul-2022		Analyst: JHD	
Calcium	150		0.170	2.50	mg/L	5	05-Jul-2022 14:57
Iron	1.00		0.0600	1.00	mg/L	5	05-Jul-2022 14:57
Magnesium	70.7		0.0500	1.00	mg/L	5	05-Jul-2022 14:57
Manganese	0.0147		0.000700	0.00500	mg/L	1	05-Jul-2022 15:06
Potassium	2.44		0.0900	1.00	mg/L	5	05-Jul-2022 14:57
Sodium	26.9		0.0700	1.00	mg/L	5	05-Jul-2022 14:57
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 01-Jul-2022		Analyst: JHD	
Iron	U		0.0120	0.200	mg/L	1	01-Jul-2022 18:09
Manganese	0.0113		0.000700	0.00500	mg/L	1	01-Jul-2022 18:09
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	26.1		0.200	0.500	mg/L	1	25-Jun-2022 00:55
Fluoride	0.640		0.0500	0.100	mg/L	1	25-Jun-2022 00:55
Nitrogen, Nitrate (As N)	0.0480	J	0.0300	0.100	mg/L	1	25-Jun-2022 00:55
Nitrogen, Nitrite (As N)	0.0361	J	0.0300	0.100	mg/L	1	25-Jun-2022 00:55
Sulfate	421		2.00	5.00	mg/L	10	25-Jun-2022 13:49
Nitrate/Nitrite (as N)	0.0841	J	0.0300	0.200	mg/L	1	25-Jun-2022 00:55
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: CWG			
Total Dissolved Solids (Residue, Filterable)	1,020		5.00	10.0	mg/L	1	29-Jun-2022 16:03
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	302		5.00	5.00	mg/L	1	30-Jun-2022 13:04
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	30-Jun-2022 13:04
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	30-Jun-2022 13:04
Alkalinity, Total (As CaCO3)	302		5.00	5.00	mg/L	1	30-Jun-2022 13:04
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011		Method:SM4500 S2-D		Prep:SM4500 S2-D / 30-Jun-2022		Analyst: MZD	
Sulfide	32.8		0.550	2.50	mg/L	50	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client:	Glenn Springs Holdings, Inc.	ANALYTICAL REPORT
Project:	11129300 Indian Basin	WorkOrder:HS22061314
Sample ID:	MW-88	Lab ID:HS22061314-02
Collection Date:	23-Jun-2022 06:58	Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B		Analyst: MZD			
Organic Carbon, Total	1.98		0.500	1.00	mg/L	1	02-Jul-2022 00:19
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: MZD			
Reactive Sulfide	U	n	100	100	mg/L	1	06-Jul-2022 14:30
SUBCONTRACT ANALYSIS - RSK		Method:NA		Analyst: SUB			
Subcontract Analysis	See Attached		0		NA	1	08-Jul-2022 10:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-49
 Collection Date: 23-Jun-2022 10:57

ANALYTICAL REPORT

WorkOrder:HS22061314
 Lab ID:HS22061314-03
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C			Method:SW8260			Analyst: AKP	
Benzene	4.1		0.20	1.0	ug/L	1	27-Jun-2022 23:14
Ethylbenzene	U		0.30	1.0	ug/L	1	27-Jun-2022 23:14
Toluene	U		0.20	1.0	ug/L	1	27-Jun-2022 23:14
Xylenes, Total	0.66	J	0.30	1.0	ug/L	1	27-Jun-2022 23:14
Surr: 1,2-Dichloroethane-d4	80.0			70-126	%REC	1	27-Jun-2022 23:14
Surr: 4-Bromofluorobenzene	95.1			77-113	%REC	1	27-Jun-2022 23:14
Surr: Dibromofluoromethane	93.0			77-123	%REC	1	27-Jun-2022 23:14
Surr: Toluene-d8	94.9			82-127	%REC	1	27-Jun-2022 23:14
DISSOLVED GASES BY RSK-175			Method:RSK-175			Analyst: PPM	
Methane	1,100		10.7	50.0	ug/L	100	01-Jul-2022 11:17
ICP-MS METALS BY SW6020A			Method:SW6020A			Prep:SW3010A / 01-Jul-2022 Analyst: JHD	
Calcium	418		0.170	2.50	mg/L	5	05-Jul-2022 14:59
Iron	8.95		0.0600	1.00	mg/L	5	05-Jul-2022 14:59
Magnesium	362		0.0500	1.00	mg/L	5	05-Jul-2022 14:59
Manganese	0.0721		0.00350	0.0250	mg/L	5	05-Jul-2022 14:59
Potassium	6.21		0.0900	1.00	mg/L	5	05-Jul-2022 14:59
Sodium	400		0.0700	1.00	mg/L	5	05-Jul-2022 14:59
DISSOLVED METALS BY SW6020A			Method:SW6020A (dissolved)			Prep:SW3010A / 01-Jul-2022 Analyst: JHD	
Iron	1.43		0.0120	0.200	mg/L	1	01-Jul-2022 18:11
Manganese	0.0684		0.000700	0.00500	mg/L	1	01-Jul-2022 18:11
ANIONS BY E300.0, REV 2.1, 1993			Method:E300			Analyst: TH	
Chloride	343		2.00	5.00	mg/L	10	25-Jun-2022 01:11
Fluoride	0.636	J	0.500	1.00	mg/L	10	25-Jun-2022 01:11
Nitrogen, Nitrate (As N)	0.475	J	0.300	1.00	mg/L	10	25-Jun-2022 01:11
Nitrogen, Nitrite (As N)	U		0.300	1.00	mg/L	10	25-Jun-2022 01:11
Sulfate	1,370		10.0	25.0	mg/L	50	25-Jun-2022 13:54
Nitrate/Nitrite (as N)	0.475	J	0.300	2.00	mg/L	10	25-Jun-2022 01:11
TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Method:M2540C			Analyst: CWG	
Total Dissolved Solids (Residue, Filterable)	4,050		5.00	10.0	mg/L	1	29-Jun-2022 16:03
ALKALINITY BY SM 2320B-2011			Method:SM2320B			Analyst: JAC	
Alkalinity, Bicarbonate (As CaCO3)	1,240		5.00	5.00	mg/L	1	30-Jun-2022 13:13
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	30-Jun-2022 13:13
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	30-Jun-2022 13:13
Alkalinity, Total (As CaCO3)	1,240		5.00	5.00	mg/L	1	30-Jun-2022 13:13
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011			Method:SM4500 S2-D			Prep:SM4500 S2-D / 30-Jun-2022 Analyst: MZD	
Sulfide	35.2		0.550	2.50	mg/L	50	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: MW-49
Collection Date: 23-Jun-2022 10:57

ANALYTICAL REPORT

WorkOrder:HS22061314
Lab ID:HS22061314-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B		Analyst: MZD			
Organic Carbon, Total	18.4		5.00	10.0	mg/L	10	02-Jul-2022 00:32
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: MZD			
Reactive Sulfide	U	n	100	100	mg/L	1	06-Jul-2022 14:30
SUBCONTRACT ANALYSIS - RSK		Method:NA		Analyst: SUB			
Subcontract Analysis	See Attached		0		NA	1	08-Jul-2022 10:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-45
 Collection Date: 23-Jun-2022 12:02

ANALYTICAL REPORT

WorkOrder:HS22061314
 Lab ID:HS22061314-04
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: AKP	
Benzene	U		0.20	1.0	ug/L	1	27-Jun-2022 23:34
Ethylbenzene	U		0.30	1.0	ug/L	1	27-Jun-2022 23:34
Toluene	U		0.20	1.0	ug/L	1	27-Jun-2022 23:34
Xylenes, Total	U		0.30	1.0	ug/L	1	27-Jun-2022 23:34
Surr: 1,2-Dichloroethane-d4	76.7			70-126	%REC	1	27-Jun-2022 23:34
Surr: 4-Bromofluorobenzene	93.7			77-113	%REC	1	27-Jun-2022 23:34
Surr: Dibromofluoromethane	90.2			77-123	%REC	1	27-Jun-2022 23:34
Surr: Toluene-d8	97.8			82-127	%REC	1	27-Jun-2022 23:34
DISSOLVED GASES BY RSK-175		Method:RSK-175				Analyst: PPM	
Methane	2.80		0.107	0.500	ug/L	1	01-Jul-2022 09:47
ICP-MS METALS BY SW6020A		Method:SW6020A				Prep:SW3010A / 01-Jul-2022 Analyst: JHD	
Calcium	544		0.170	2.50	mg/L	5	05-Jul-2022 15:01
Iron	3.53		0.0600	1.00	mg/L	5	05-Jul-2022 15:01
Magnesium	514		0.0500	1.00	mg/L	5	05-Jul-2022 15:01
Manganese	0.324		0.00350	0.0250	mg/L	5	05-Jul-2022 15:01
Potassium	4.68		0.0900	1.00	mg/L	5	05-Jul-2022 15:01
Sodium	443		0.0700	1.00	mg/L	5	05-Jul-2022 15:01
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)				Prep:SW3010A / 01-Jul-2022 Analyst: JHD	
Iron	0.0247	J	0.0120	0.200	mg/L	1	01-Jul-2022 18:13
Manganese	0.327		0.000700	0.00500	mg/L	1	01-Jul-2022 18:13
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH	
Chloride	313		2.00	5.00	mg/L	10	25-Jun-2022 01:17
Fluoride	0.896	J	0.500	1.00	mg/L	10	25-Jun-2022 01:17
Nitrogen, Nitrate (As N)	3.64		0.300	1.00	mg/L	10	25-Jun-2022 01:17
Nitrogen, Nitrite (As N)	U		0.300	1.00	mg/L	10	25-Jun-2022 01:17
Sulfate	3,600		10.0	25.0	mg/L	50	25-Jun-2022 01:22
Nitrate/Nitrite (as N)	3.64		0.300	2.00	mg/L	10	25-Jun-2022 01:17
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C				Analyst: CWG	
Total Dissolved Solids (Residue, Filterable)	6,480		5.00	10.0	mg/L	1	29-Jun-2022 16:03
ALKALINITY BY SM 2320B-2011		Method:SM2320B				Analyst: JAC	
Alkalinity, Bicarbonate (As CaCO3)	581		5.00	5.00	mg/L	1	30-Jun-2022 13:21
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	30-Jun-2022 13:21
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	30-Jun-2022 13:21
Alkalinity, Total (As CaCO3)	581		5.00	5.00	mg/L	1	30-Jun-2022 13:21
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011		Method:SM4500 S2-D				Prep:SM4500 S2-D / 30-Jun-2022 Analyst: MZD	
Sulfide	U		0.0110	0.0500	mg/L	1	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: MW-45
Collection Date: 23-Jun-2022 12:02

ANALYTICAL REPORT

WorkOrder:HS22061314
Lab ID:HS22061314-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B		Analyst: MZD			
Organic Carbon, Total	10.8		5.00	10.0	mg/L	10	02-Jul-2022 00:44
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: MZD			
Reactive Sulfide	U	n	100	100	mg/L	1	06-Jul-2022 14:30
SUBCONTRACT ANALYSIS - RSK		Method:NA		Analyst: SUB			
Subcontract Analysis	See Attached		0		NA	1	08-Jul-2022 10:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Weight / Prep Log

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

Batch ID: 180456 Start Date: 25 Jun 2022 08:00 End Date: 25 Jun 2022 08:30

Method: SAMPLE FILTRATION - 0.45 MICRON FILTER Prep Code: FILTRATION

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061314-02		100 (mL)	100 (mL)	1	120 mL Plastic Neat
HS22061314-03		100 (mL)	100 (mL)	1	120 mL Plastic Neat
HS22061314-04		100 (mL)	100 (mL)	1	120 mL Plastic Neat

Batch ID: 180721 Start Date: 01 Jul 2022 08:00 End Date: 01 Jul 2022 17:00

Method: WATER - SW3010A Prep Code: 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061314-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22061314-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22061314-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 180738 Start Date: 01 Jul 2022 11:00 End Date: 01 Jul 2022 15:00

Method: DISS METALS PREP - WATER - SW3010A Prep Code: 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061314-02		10 (mL)	10 (mL)	1	120 mL Plastic Neat
HS22061314-03		10 (mL)	10 (mL)	1	120 mL Plastic Neat
HS22061314-04		10 (mL)	10 (mL)	1	120 mL Plastic Neat

Batch ID: 180763 Start Date: 30 Jun 2022 11:10 End Date: 30 Jun 2022 12:30

Method: SULFIDE METHYLENE BLUE PREP SM4500 S2 D Prep Code: SULFIDE_W_METHYLENE PREP

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061314-02		50 (mL)	50 (mL)	1	250 mL plastic, NaOH
HS22061314-03		50 (mL)	50 (mL)	1	250 mL plastic, NaOH
HS22061314-04		50 (mL)	50 (mL)	1	250 mL plastic, NaOH

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 180721 (0)		Test Name : ICP-MS METALS BY SW6020A			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58		01 Jul 2022 08:00	05 Jul 2022 15:06	1
HS22061314-02	MW-88	23 Jun 2022 06:58		01 Jul 2022 08:00	05 Jul 2022 14:57	5
HS22061314-03	MW-49	23 Jun 2022 10:57		01 Jul 2022 08:00	05 Jul 2022 14:59	5
HS22061314-04	MW-45	23 Jun 2022 12:02		01 Jul 2022 08:00	05 Jul 2022 15:01	5
Batch ID: 180738 (0)		Test Name : DISSOLVED METALS BY SW6020A			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58		01 Jul 2022 11:00	01 Jul 2022 18:09	1
HS22061314-03	MW-49	23 Jun 2022 10:57		01 Jul 2022 11:00	01 Jul 2022 18:11	1
HS22061314-04	MW-45	23 Jun 2022 12:02		01 Jul 2022 11:00	01 Jul 2022 18:13	1
Batch ID: 180763 (0)		Test Name : SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58		30 Jun 2022 11:10	01 Jul 2022 15:53	50
HS22061314-03	MW-49	23 Jun 2022 10:57		30 Jun 2022 11:10	01 Jul 2022 15:53	50
HS22061314-04	MW-45	23 Jun 2022 12:02		30 Jun 2022 11:10	01 Jul 2022 15:53	1
Batch ID: R411535 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			25 Jun 2022 00:55	1
HS22061314-03	MW-49	23 Jun 2022 10:57			25 Jun 2022 01:11	10
HS22061314-04	MW-45	23 Jun 2022 12:02			25 Jun 2022 01:22	50
HS22061314-04	MW-45	23 Jun 2022 12:02			25 Jun 2022 01:17	10
Batch ID: R411549 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			25 Jun 2022 13:49	10
HS22061314-03	MW-49	23 Jun 2022 10:57			25 Jun 2022 13:54	50
Batch ID: R411668 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			27 Jun 2022 22:55	1
HS22061314-03	MW-49	23 Jun 2022 10:57			27 Jun 2022 23:14	1
HS22061314-04	MW-45	23 Jun 2022 12:02			27 Jun 2022 23:34	1
Batch ID: R411668 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water	
HS22061314-01	11129300-TB-062322	23 Jun 2022 00:00			27 Jun 2022 21:56	1
Batch ID: R411945 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			29 Jun 2022 16:03	1
HS22061314-03	MW-49	23 Jun 2022 10:57			29 Jun 2022 16:03	1
HS22061314-04	MW-45	23 Jun 2022 12:02			29 Jun 2022 16:03	1
Batch ID: R411967 (0)		Test Name : ALKALINITY BY SM 2320B-2011			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			30 Jun 2022 13:04	1
HS22061314-03	MW-49	23 Jun 2022 10:57			30 Jun 2022 13:13	1
HS22061314-04	MW-45	23 Jun 2022 12:02			30 Jun 2022 13:21	1

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R412066 (0)		Test Name : DISSOLVED GASES BY RSK-175			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			01 Jul 2022 09:30	1
HS22061314-03	MW-49	23 Jun 2022 10:57			01 Jul 2022 11:17	100
HS22061314-04	MW-45	23 Jun 2022 12:02			01 Jul 2022 09:47	1
Batch ID: R412181 (0)		Test Name : TOTAL ORGANIC CARBON - SM5310B-2011			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			02 Jul 2022 00:19	1
HS22061314-03	MW-49	23 Jun 2022 10:57			02 Jul 2022 00:32	10
HS22061314-04	MW-45	23 Jun 2022 12:02			02 Jul 2022 00:44	10
Batch ID: R412313 (0)		Test Name : REACTIVE SULFIDE			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			06 Jul 2022 14:30	1
HS22061314-03	MW-49	23 Jun 2022 10:57			06 Jul 2022 14:30	1
HS22061314-04	MW-45	23 Jun 2022 12:02			06 Jul 2022 14:30	1
Batch ID: R412434 (0)		Test Name : SUBCONTRACT ANALYSIS - RSK			Matrix: Groundwater	
HS22061314-02	MW-88	23 Jun 2022 06:58			08 Jul 2022 10:12	1
HS22061314-03	MW-49	23 Jun 2022 10:57			08 Jul 2022 10:12	1
HS22061314-04	MW-45	23 Jun 2022 12:02			08 Jul 2022 10:12	1

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R412066 (0)		Instrument: FID-4		Method: DISSOLVED GASES BY RSK-175					
MBLK	Sample ID: MBLK-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:03					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726418		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	U	0.500							
LCS	Sample ID: LCS-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:12					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726419		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	8.981	0.500	9.647	0	93.1	75 - 125			
LCSD	Sample ID: LCSD-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:21					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726420		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	9.809	0.500	9.647	0	102	75 - 125	8.981	8.82	30
DUP	Sample ID: HS22061313-01DUP	Units: ug/L		Analysis Date: 01-Jul-2022 12:07					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726437		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	8.345	0.500					9.121	8.89	30
The following samples were analyzed in this batch:									
HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: 180721 (0)		Instrument: ICPMS07		Method: ICP-MS METALS BY SW6020A					
MBLK	Sample ID: MBLK-180721	Units: mg/L		Analysis Date: 05-Jul-2022 13:44					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729740		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	U	0.500							
Iron	U	0.200							
Magnesium	U	0.200							
Manganese	U	0.00500							
Potassium	0.03816	0.200							J
Sodium	0.05629	0.200							J

LCS	Sample ID: LCS-180721	Units: mg/L		Analysis Date: 05-Jul-2022 13:46					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729741		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	5.052	0.500	5	0	101	80 - 120			
Iron	5.112	0.200	5	0	102	80 - 120			
Magnesium	5.302	0.200	5	0	106	80 - 120			
Manganese	0.05181	0.00500	0.05	0	104	80 - 120			
Potassium	5.416	0.200	5	0	108	80 - 120			
Sodium	5.248	0.200	5	0	105	80 - 120			

MS	Sample ID: HS22061085-17MS	Units: mg/L		Analysis Date: 05-Jul-2022 13:52					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729744		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	61.59	0.500	5	56.36	105	80 - 120			O
Iron	17.02	0.200	5	12.13	97.9	80 - 120			
Magnesium	32.49	0.200	5	27.47	100	80 - 120			O
Manganese	2.254	0.00500	0.05	2.209	89.7	80 - 120			EO
Potassium	6.31	0.200	5	1.023	106	80 - 120			
Sodium	22.38	0.200	5	17.29	102	80 - 120			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: 180721 (0)		Instrument: ICPMS07		Method: ICP-MS METALS BY SW6020A						
MSD		Sample ID: HS22061085-17MSD		Units: mg/L		Analysis Date: 05-Jul-2022 13:54				
Client ID:		Run ID: ICPMS07_412207		SeqNo: 6729745		PrepDate: 01-Jul-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	60.38	0.500	5	56.36	80.4	80 - 120	61.59	1.99	20	O
Iron	16.96	0.200	5	12.13	96.7	80 - 120	17.02	0.36	20	
Magnesium	32.5	0.200	5	27.47	100	80 - 120	32.49	0.0341	20	O
Manganese	2.238	0.00500	0.05	2.209	57.7	80 - 120	2.254	0.712	20	SEO
Potassium	6.28	0.200	5	1.023	105	80 - 120	6.31	0.482	20	
Sodium	22.24	0.200	5	17.29	98.8	80 - 120	22.38	0.631	20	
PDS		Sample ID: HS22061085-17PDS		Units: mg/L		Analysis Date: 05-Jul-2022 13:56				
Client ID:		Run ID: ICPMS07_412207		SeqNo: 6729746		PrepDate: 01-Jul-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	67.26	0.500	10	56.36	109	75 - 125				O
Iron	22.29	0.200	10	12.13	102	75 - 125				
Magnesium	37.62	0.200	10	27.47	101	75 - 125				
Potassium	11.4	0.200	10	1.023	104	75 - 125				
Sodium	27.67	0.200	10	17.29	104	75 - 125				
PDS		Sample ID: HS22061085-17PDS		Units: mg/L		Analysis Date: 06-Jul-2022 12:01				
Client ID:		Run ID: ICPMS07_412274		SeqNo: 6731819		PrepDate: 01-Jul-2022		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Manganese	4.568	0.100	2	2.169	120	75 - 125				
SD		Sample ID: HS22061085-17SD		Units: mg/L		Analysis Date: 05-Jul-2022 13:50				
Client ID:		Run ID: ICPMS07_412207		SeqNo: 6729743		PrepDate: 01-Jul-2022		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	RPD Limit	Qual
Calcium	52.67	2.50					56.36	6.55	10	
Iron	12.17	1.00					12.13	0.334	10	
Magnesium	28.39	1.00					27.47	3.35	10	
Potassium	1.095	1.00					1.023	6.99	10	
Sodium	17.76	1.00					17.29	2.72	10	

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: 180721 (0)		Instrument: ICPMS07		Method: ICP-MS METALS BY SW6020A					
SD	Sample ID: HS22061085-17SD	Units: mg/L		Analysis Date: 06-Jul-2022 11:59					
Client ID:	Run ID: ICPMS07_412274		SeqNo: 6731818		PrepDate: 01-Jul-2022		DF: 100		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	Limit Qual
Manganese	2.185	0.500					2.169	0.756	10
The following samples were analyzed in this batch:									
HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: 180738 (0)		Instrument: ICPMS07		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
MBLK	Sample ID: MBLKF2-180738	Units: mg/L		Analysis Date: 05-Jul-2022 15:14					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729862		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

MBLK	Sample ID: MBLKF3-180738	Units: mg/L		Analysis Date: 05-Jul-2022 15:16					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729863		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

MBLK	Sample ID: MBLKF1-180738	Units: mg/L		Analysis Date: 05-Jul-2022 15:12					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729861		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

MBLK	Sample ID: MBLK-180738	Units: mg/L		Analysis Date: 05-Jul-2022 14:37					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729782		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

LCS	Sample ID: LCS-180738	Units: mg/L		Analysis Date: 01-Jul-2022 18:07					
Client ID:	Run ID: ICPMS07_412076	SeqNo: 6728996		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron 5.237 0.200 5 0 105 80 - 120

Manganese 0.05176 0.00500 0.05 0 104 80 - 120

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: 180738 (0)		Instrument: ICPMS07		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
MS	Sample ID: HS22061548-01MS	Units: mg/L		Analysis Date: 01-Jul-2022 18:27					
Client ID:	Run ID: ICPMS07_412076	SeqNo: 6729006		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Iron	5.086	0.200	5	0.0137	101	75 - 125			
Manganese	0.05253	0.00500	0.05	0.002166	101	75 - 125			
MSD	Sample ID: HS22061548-01MSD	Units: mg/L		Analysis Date: 01-Jul-2022 18:29					
Client ID:	Run ID: ICPMS07_412076	SeqNo: 6729007		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Iron	5.383	0.200	5	0.0137	107	75 - 125	5.086	5.67	20
Manganese	0.05617	0.00500	0.05	0.002166	108	75 - 125	0.05253	6.7	20
PDS	Sample ID: HS22061548-01PDS	Units: mg/L		Analysis Date: 01-Jul-2022 18:31					
Client ID:	Run ID: ICPMS07_412076	SeqNo: 6729008		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Iron	10.22	0.200	10	0.0137	102	75 - 125			
Manganese	0.1124	0.00500	0.1	0.002166	110	75 - 125			
SD	Sample ID: HS22061548-01SD	Units: mg/L		Analysis Date: 01-Jul-2022 18:25					
Client ID:	Run ID: ICPMS07_412076	SeqNo: 6729005		PrepDate: 01-Jul-2022		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Iron	U	1.00					0.0137	0	10
Manganese	U	0.0250					0.002166	0	10
The following samples were analyzed in this batch:									
HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R411668 (0)		Instrument: VOA7		Method: LOW LEVEL VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKW-220627	Units: ug/L		Analysis Date: 27-Jun-2022 21:16					
Client ID:	Run ID: VOA7_411668	SeqNo: 6717417		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	1.0							
Ethylbenzene	U	1.0							
Toluene	U	1.0							
Xylenes, Total	U	1.0							
Surr: 1,2-Dichloroethane-d4	40.63	1.0	50	0	81.3	70 - 123			
Surr: 4-Bromofluorobenzene	47.05	1.0	50	0	94.1	77 - 113			
Surr: Dibromofluoromethane	46.4	1.0	50	0	92.8	73 - 126			
Surr: Toluene-d8	49.57	1.0	50	0	99.1	81 - 120			

LCS	Sample ID: VLCSW-220627	Units: ug/L		Analysis Date: 27-Jun-2022 20:37					
Client ID:	Run ID: VOA7_411668	SeqNo: 6717416		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	17.73	1.0	20	0	88.6	74 - 120			
Ethylbenzene	17.62	1.0	20	0	88.1	77 - 117			
Toluene	17.77	1.0	20	0	88.9	77 - 118			
Xylenes, Total	55.52	1.0	60	0	92.5	75 - 122			
Surr: 1,2-Dichloroethane-d4	40.21	1.0	50	0	80.4	70 - 123			
Surr: 4-Bromofluorobenzene	47.19	1.0	50	0	94.4	77 - 113			
Surr: Dibromofluoromethane	47.09	1.0	50	0	94.2	73 - 126			
Surr: Toluene-d8	49.56	1.0	50	0	99.1	81 - 120			

MS	Sample ID: HS22061290-21MS	Units: ug/L		Analysis Date: 28-Jun-2022 04:24					
Client ID:	Run ID: VOA7_411668	SeqNo: 6717438		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.69	1.0	20	0	93.4	70 - 127			
Ethylbenzene	18.35	1.0	20	0	91.7	70 - 124			
Toluene	17.75	1.0	20	0	88.8	70 - 123			
Xylenes, Total	56	1.0	60	0	93.3	70 - 130			
Surr: 1,2-Dichloroethane-d4	39.09	1.0	50	0	78.2	70 - 126			
Surr: 4-Bromofluorobenzene	46.62	1.0	50	0	93.2	77 - 113			
Surr: Dibromofluoromethane	45.98	1.0	50	0	92.0	77 - 123			
Surr: Toluene-d8	47.99	1.0	50	0	96.0	82 - 127			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R411668 (0)		Instrument: VOA7		Method: LOW LEVEL VOLATILES BY SW8260C					
MSD		Sample ID: HS22061290-21MSD		Units: ug/L		Analysis Date: 28-Jun-2022 04:44			
Client ID:		Run ID: VOA7_411668		SeqNo: 6717439		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.7	1.0	20	0	93.5	70 - 127	18.69	0.0598	20
Ethylbenzene	18.74	1.0	20	0	93.7	70 - 124	18.35	2.12	20
Toluene	18.3	1.0	20	0	91.5	70 - 123	17.75	3.02	20
Xylenes, Total	57.71	1.0	60	0	96.2	70 - 130	56	3	20
Surr: 1,2-Dichloroethane-d4	38.26	1.0	50	0	76.5	70 - 126	39.09	2.15	20
Surr: 4-Bromofluorobenzene	46.21	1.0	50	0	92.4	77 - 113	46.62	0.868	20
Surr: Dibromofluoromethane	44.13	1.0	50	0	88.3	77 - 123	45.98	4.1	20
Surr: Toluene-d8	48.05	1.0	50	0	96.1	82 - 127	47.99	0.138	20
The following samples were analyzed in this batch:									
HS22061314-01 HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: 180763 (0)		Instrument: UV-2450		Method: SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011					
MBLK	Sample ID: MBLK-180763	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071		SeqNo: 6726534		PrepDate: 30-Jun-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	U	0.0500							
LCS	Sample ID: LCS-180763	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071		SeqNo: 6726533		PrepDate: 30-Jun-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.19	0.0500	0.2	0	95.0	85 - 115			
MS	Sample ID: HS22061396-03MS	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071		SeqNo: 6726531		PrepDate: 30-Jun-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.187	0.0500	0.2	0.005	91.0	77 - 124			
MSD	Sample ID: HS22061396-03MSD	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071		SeqNo: 6726532		PrepDate: 30-Jun-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.201	0.0500	0.2	0.005	98.0	77 - 124	0.187	7.22	20
The following samples were analyzed in this batch:									
HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R411535 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
MBLK	Sample ID: MBLK	Units: mg/L		Analysis Date: 24-Jun-2022 23:41					
Client ID:	Run ID: ICS-Integrion_411535		SeqNo: 6713603		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	U	0.500							
Fluoride	U	0.100							
Nitrogen, Nitrate (As N)	U	0.100							
Nitrogen, Nitrite (As N)	U	0.100							
Nitrate/Nitrite (as N)	U	0.200							
Sulfate	U	0.500							

LCS	Sample ID: LCS	Units: mg/L		Analysis Date: 24-Jun-2022 23:46					
Client ID:	Run ID: ICS-Integrion_411535		SeqNo: 6713604		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	19.48	0.500	20	0	97.4	90 - 110			
Fluoride	3.701	0.100	4	0	92.5	90 - 110			
Nitrogen, Nitrate (As N)	3.879	0.100	4	0	97.0	90 - 110			
Nitrogen, Nitrite (As N)	4.235	0.100	4	0	106	90 - 110			
Nitrate/Nitrite (as N)	8.114	0.200	8	0	101	90 - 110			
Sulfate	19.21	0.500	20	0	96.1	90 - 110			

MS	Sample ID: HS22061326-08MS	Units: mg/L		Analysis Date: 25-Jun-2022 04:49					
Client ID:	Run ID: ICS-Integrion_411535		SeqNo: 6713645		PrepDate:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	1330	2.50	50	1286	89.2	80 - 120			EO
Fluoride	23.69	0.500	10	1.142	225	80 - 120			S
Nitrogen, Nitrate (As N)	10.4	0.500	10	0.463	99.4	80 - 120			
Nitrogen, Nitrite (As N)	10.56	0.500	10	0	106	80 - 120			
Nitrate/Nitrite (as N)	20.96	1.00	20	0.463	102	80 - 120			
Sulfate	73.62	2.50	50	1.354	145	80 - 120			S

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R411535 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
MS		Sample ID: HS22061314-02MS	Units: mg/L		Analysis Date: 25-Jun-2022 01:01				
Client ID: MW-88		Run ID: ICS-Integrion_411535	SeqNo: 6713614		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	35.53	0.500	10	26.1	94.3	80 - 120			
Fluoride	2.64	0.100	2	0.6399	100.0	80 - 120			
Nitrogen, Nitrate (As N)	1.954	0.100	2	0.048	95.3	80 - 120			
Nitrogen, Nitrite (As N)	1.778	0.100	2	0.0361	87.1	80 - 120			
Nitrate/Nitrite (as N)	3.732	0.200	4	0.0841	91.2	80 - 120			
Sulfate	406.8	0.500	10	417.2	-104	80 - 120			SEO
MSD		Sample ID: HS22061326-08MSD	Units: mg/L		Analysis Date: 25-Jun-2022 04:54				
Client ID:		Run ID: ICS-Integrion_411535	SeqNo: 6713646		PrepDate:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	1295	2.50	50	1286	18.3	80 - 120	1330	2.7	20 SEO
Fluoride	23.09	0.500	10	1.142	220	80 - 120	23.69	2.54	20 S
Nitrogen, Nitrate (As N)	10.05	0.500	10	0.463	95.9	80 - 120	10.4	3.4	20
Nitrogen, Nitrite (As N)	10.32	0.500	10	0	103	80 - 120	10.56	2.35	20
Nitrate/Nitrite (as N)	20.37	1.00	20	0.463	99.5	80 - 120	20.96	2.87	20
Sulfate	71.52	2.50	50	1.354	140	80 - 120	73.62	2.89	20 S
MSD		Sample ID: HS22061314-02MSD	Units: mg/L		Analysis Date: 25-Jun-2022 01:06				
Client ID: MW-88		Run ID: ICS-Integrion_411535	SeqNo: 6713615		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	35.58	0.500	10	26.1	94.8	80 - 120	35.53	0.149	20
Fluoride	2.555	0.100	2	0.6399	95.7	80 - 120	2.64	3.27	20
Nitrogen, Nitrate (As N)	1.953	0.100	2	0.048	95.2	80 - 120	1.954	0.0717	20
Nitrogen, Nitrite (As N)	1.766	0.100	2	0.0361	86.5	80 - 120	1.778	0.688	20
Nitrate/Nitrite (as N)	3.719	0.200	4	0.0841	90.9	80 - 120	3.732	0.365	20
Sulfate	408.7	0.500	10	417.2	-84.9	80 - 120	406.8	0.477	20 SEO
The following samples were analyzed in this batch: HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R411549 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
MBLK	Sample ID: MBLK	Units: mg/L		Analysis Date: 25-Jun-2022 09:22					
Client ID:	Run ID: ICS-Integrion_411549		SeqNo: 6713923		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfate	U	0.500							
LCS	Sample ID: LCS	Units: mg/L		Analysis Date: 25-Jun-2022 09:27					
Client ID:	Run ID: ICS-Integrion_411549		SeqNo: 6713924		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfate	19.68	0.500	20	0	98.4	90 - 110			
MS	Sample ID: HS22061085-05MS	Units: mg/L		Analysis Date: 25-Jun-2022 12:35					
Client ID:	Run ID: ICS-Integrion_411549		SeqNo: 6713940		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfate	10.54	0.500	10	0.2862	103	80 - 120			
MS	Sample ID: HS22061085-04MS	Units: mg/L		Analysis Date: 25-Jun-2022 12:19					
Client ID:	Run ID: ICS-Integrion_411549		SeqNo: 6713937		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfate	11.21	0.500	10	0.9111	103	80 - 120			
MSD	Sample ID: HS22061085-05MSD	Units: mg/L		Analysis Date: 25-Jun-2022 12:40					
Client ID:	Run ID: ICS-Integrion_411549		SeqNo: 6713941		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfate	10.53	0.500	10	0.2862	102	80 - 120	10.54	0.0456	20
MSD	Sample ID: HS22061085-04MSD	Units: mg/L		Analysis Date: 25-Jun-2022 12:24					
Client ID:	Run ID: ICS-Integrion_411549		SeqNo: 6713938		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfate	11.1	0.500	10	0.9111	102	80 - 120	11.21	1.04	20
The following samples were analyzed in this batch: HS22061314-02 HS22061314-03									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R411945 (0)		Instrument:		Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011				
MBLK	Sample ID: WBLK-062922	Units: mg/L		Analysis Date: 29-Jun-2022 16:03						
Client ID:	Run ID: Balance1_411945	SeqNo: 6723895		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0							
LCS	Sample ID: WLCS-062922	Units: mg/L		Analysis Date: 29-Jun-2022 16:03						
Client ID:	Run ID: Balance1_411945	SeqNo: 6723896		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		1060	10.0	1000	0	106	85 - 115			
DUP	Sample ID: HS22061428-18DUP	Units: mg/L		Analysis Date: 29-Jun-2022 16:03						
Client ID:	Run ID: Balance1_411945	SeqNo: 6723885		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		632	10.0				618	2.24	5	
DUP	Sample ID: HS22061357-05DUP	Units: mg/L		Analysis Date: 29-Jun-2022 16:03						
Client ID:	Run ID: Balance1_411945	SeqNo: 6723883		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		2968	10.0				2966	0.0674	5	
The following samples were analyzed in this batch:		HS22061314-02		HS22061314-03		HS22061314-04				

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R411967 (0)		Instrument: ManTech01		Method: ALKALINITY BY SM 2320B-2011					
MBLK	Sample ID: WBLK2-220609	Units: mg/L		Analysis Date: 30-Jun-2022 10:52					
Client ID:	Run ID: ManTech01_411967	SeqNo: 6724378		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00							
Alkalinity, Carbonate (As CaCO3)	U	5.00							
Alkalinity, Hydroxide (As CaCO3)	U	5.00							
Alkalinity, Total (As CaCO3)	U	5.00							
LCS	Sample ID: LCS2-220609	Units: mg/L		Analysis Date: 30-Jun-2022 11:01					
Client ID:	Run ID: ManTech01_411967	SeqNo: 6724379		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Carbonate (As CaCO3)	975.8	5.00	1000	0	97.6	85 - 115			
Alkalinity, Total (As CaCO3)	1007	5.00	1000	0	101	85 - 115			
LCSD	Sample ID: LCSD2-220609	Units: mg/L		Analysis Date: 30-Jun-2022 11:10					
Client ID:	Run ID: ManTech01_411967	SeqNo: 6724380		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Carbonate (As CaCO3)	958.7	5.00	1000	0	95.9	85 - 115	975.8	1.77	20
Alkalinity, Total (As CaCO3)	1004	5.00	1000	0	100	85 - 115	1007	0.329	20
DUP	Sample ID: HS22061260-18DUP	Units: mg/L		Analysis Date: 30-Jun-2022 11:25					
Client ID:	Run ID: ManTech01_411967	SeqNo: 6724382		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00					0	0	20
Alkalinity, Carbonate (As CaCO3)	122.5	5.00					125.6	2.51	20
Alkalinity, Hydroxide (As CaCO3)	17.4	5.00					13.75	23.4	20 R
Alkalinity, Total (As CaCO3)	139.9	5.00					139.3	0.387	20
The following samples were analyzed in this batch:									
HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R412181 (0)		Instrument: TOC_04		Method: TOTAL ORGANIC CARBON - SM5310B-2011					
MBLK	Sample ID: MBLK3-07012022	Units: mg/L		Analysis Date: 01-Jul-2022 23:12					
Client ID:	Run ID: TOC_04_412181	SeqNo: 6729082		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total U 1.00									
LCS	Sample ID: LCS3-07012022	Units: mg/L		Analysis Date: 01-Jul-2022 23:26					
Client ID:	Run ID: TOC_04_412181	SeqNo: 6729083		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total 9.741 1.00 10 0 97.4 85 - 115									
LCSD	Sample ID: LCSD3-07012022	Units: mg/L		Analysis Date: 01-Jul-2022 23:39					
Client ID:	Run ID: TOC_04_412181	SeqNo: 6729084		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total 9.85 1.00 10 0 98.5 85 - 115 9.741 1.11 20									
MS	Sample ID: HS22061663-01MS	Units: mg/L		Analysis Date: 02-Jul-2022 01:10					
Client ID:	Run ID: TOC_04_412181	SeqNo: 6729091		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total 10.59 1.00 10 0.6347 99.6 80 - 120									
The following samples were analyzed in this batch: HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061314

QC BATCH REPORT

Batch ID: R412313 (0)		Instrument: WetChem_HS		Method: REACTIVE SULFIDE					
MBLK	Sample ID: MBLK-R412313	Units: mg/L		Analysis Date: 06-Jul-2022 14:30					
Client ID:	Run ID: WetChem_HS_412313		SeqNo: 6731938		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	U	100							
LCS	Sample ID: LCS-R412313	Units: mg/L		Analysis Date: 06-Jul-2022 14:30					
Client ID:	Run ID: WetChem_HS_412313		SeqNo: 6731937		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	69.6	100	100	0	69.6	20 - 120			J
MS	Sample ID: HS22061396-05MS	Units: mg/L		Analysis Date: 06-Jul-2022 14:30					
Client ID:	Run ID: WetChem_HS_412313		SeqNo: 6731939		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	65.6	100	100	0	65.6	20 - 120			J
The following samples were analyzed in this batch:									
HS22061314-02 HS22061314-03 HS22061314-04									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061314

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
Date	
mg/L	Milligrams per Liter

ALS Houston, US

Date: 08-Jul-22

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-35	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2022	31-Dec-2022
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2021-080	31-Aug-2022
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932021-12	30-Jul-2022

ALS Houston, US

Date: 08-Jul-22

Sample Receipt Checklist

Work Order ID: HS22061314

Date/Time Received: 24-Jun-2022 09:30

Client Name: Glen Springs/CRA

Received by: Corey Grandits

Completed By: /S/ Niles D. Ranchod

24-Jun-2022 11:37

Reviewed by: /S/ Dane J. Wacasey

30-Jun-2022 10:22

eSignature

Date/Time

eSignature

Date/Time

Matrices: WCarrier name: FedEx

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒No ☐Not Present ☐

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

1 Page(s)

Chain of custody signed when relinquished and received?

Yes ☒No ☐

COC IDs:276023

Samplers name present on COC?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

2.3uc/2.8c

IR31

Cooler(s)/Kit(s):

48982

Date/Time sample(s) sent to storage:

6/24/2022

Water - VOA vials have zero headspace?

Yes ☒No ☐No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

Cincinnati, OH
+1 513 733 5336Everett, WA
+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 276023

Houston, TX
+1 281 530 5656Middletown, PA
+1 717 944 5541Spring City, PA
+1 610 948 4902Salt Lake City, UT
+1 801 266 7728

Customer Information		ALS Project Manager:		ALS Work Order #:	
Purchase Order	4502865846 767-402-D02-3100	Project Name	11129300 Indian Basin	Parameter/Method Request for Analysis	
Work Order		Project Number	11129300	A 300_W (300 *NO3, NO2*, Cl, F, SO4) - [250P Neat-share]	
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	B TDS_W 2540C (2540C TDS) & Alkalinity - [250P Neat-share]	
Send Report To	Hugh Robotham	Invoice Attn	Accounts Payable	C 8260_LL_W (8260 BTEX) - [3xVOAHCl]	
Address	PO Box 2148	Address	PO Box 2148	D RSK175 (RSK-175 Methane) - [3xVOAHCl]	
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148	E SUB_RSK (RSK-175 CO2 (Sub PACE B.R.)) - [3xVOA Neat]	
Phone		Phone		F ICP_TW (6020 Total Ca, Fe, Mg, Mn, K, Na) - [120P HNO3]	
Fax		Fax		G ICP DISS (6020 DISS Fe, Mn) - [120P HNO3] <i>File in Lab</i>	
e-Mail Address	Hugh.Robotham@arcadis.com	e-Mail Address	Chem_GSH@oxy.com	H RS_W (Section 7 Reactive Sulfide) - [120P Neat]	
				I (4500 S2 D Sulfide) - [250P NaOH/ZnAc]	
				J TOC_W 5310B (5310B TOC) - [3xVOA H2SO4]	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	11129300-TB-			Water	1.8	2			X								
2	MW-88	062322	0658	Groundwa	12.3, 7.8	17	X	X	X	X	X	X	X	X	X	X	
3	MW-49	062322	1057	"	"	"	X	X	X	X	X	X	X	X	X	X	
4	MW-45	062322	1202	"	"	"	X	X	X	X	X	X	X	X	X	X	
5							X	X	X	X	X	X	X	X	X	X	
6																	
7																	
8																	
9																	
0																	

HS22061314

Glenn Springs Holdings, Inc.
11129300 Indian Basin

Sampler(s) Please Print & Sign

Shipment Method

Required Turnaround Time: (Check Box)

☒ STD 10 Wk Days☐ 5 Wk Days☐ 3 Wk Days☐ 24 Hour

Results Due Date:

Relinquished by:

Relinquished by:

Time:

Time:

Received by:

Received by (Laboratory):

Checked by (Laboratory):

Notes:

GSH Indian Basin

Cooler ID

Cooler Temp.

QC Package: (Check One Box Below)

☒ Level II Std QC☐ Level III Std QC/Row Date☐ Level IV SW846 CIP☐ Other☐ TFRP Checklist☐ TFRP Labeling

Reservative Key:

1-HCl 2-HNO₃3-H₂SO₄

4-NaOH

5-Na₂S₂O₃6-NaHSO₄

7-Other

8-4°C

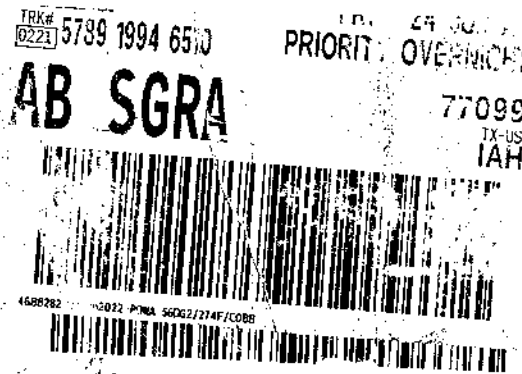
9-5035

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2011 by ALS Environmental.



 ALS 10450 Stanciliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5687	ADY SEAL		Broken By:  Date: 6-24
	CUS Time: _____ Date: _____ Name: _____ Company: _____		



LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 07/07/2022

Report # 222062835



Project HS22061314

Samples Collected 6/23/22

Deliver To

Dane Wacasey
ALS Houston
10450 Stancliff Rd
Suite 210
Houston, TX 770994338
281-530-5656

Additional Recipients

Jumoke Lawal, ALS Houston





Report#: 222062835
Project ID: HS22061314

Report Date: 07/07/2022

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % difference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
 Pace Gulf Coast Report 222062835



Report#: 222062835
Project ID: HS22061314

Report Date: 07/07/2022

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234



Report#: 222062835
Project ID: HS22061314

Report Date: 07/07/2022

Case Narrative

Client: ALS Environmental - Houston, TX **Report:** 222062835

Pace Analytical Gulf Coast received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES GAS CHROMATOGRAPHY

In the EPA RSK-175 analysis for analytical batch 744842, the LCS/LCSD exhibited RPD failures.



Report#: 222062835
Project ID: HS22061314

Report Date: 07/07/2022

Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22206283501	MW-88	Water	6/23/22 06:58	6/28/22 09:28
22206283502	MW-49	Water	6/23/22 10:57	6/28/22 09:28
22206283503	MW-45	Water	6/23/22 12:02	6/28/22 09:28



Report#: 222062835
Project ID: HS22061314

Report Date: 07/07/2022

Detect Summary

Results and Detection Limits are adjusted for dilution and moisture when applicable

EPA RSK-175						
Lab ID	Client ID	Parameter	Units	Result	Dil.	%Moist
22206283501	MW-88	Carbon Dioxide	ug/L	34100	10	NA
22206283502	MW-49	Carbon Dioxide	ug/L	141000	10	NA
22206283503	MW-45	Carbon Dioxide	ug/L	39800	10	NA



Report#: 222062835
Project ID: HS22061314

Report Date: 07/07/2022

Sample Results

MW-88	Collect Date	06/23/2022 06:58	Lab ID	22206283501
	Receive Date	06/28/2022 09:28	Matrix	Water

EPA RSK-175

*Results and limits are adjusted for dilution.

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	10	07/07/22 10:43	744842	BDP	NA

CAS# 124-38-9	Parameter Carbon Dioxide	Result 34100	LOQ 9000	Units ug/L
-------------------------	---	-------------------------------	---------------------------	----------------------

MW-49	Collect Date	06/23/2022 10:57	Lab ID	22206283502
	Receive Date	06/28/2022 09:28	Matrix	Water

EPA RSK-175

*Results and limits are adjusted for dilution.

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	10	07/07/22 10:52	744842	BDP	NA

CAS# 124-38-9	Parameter Carbon Dioxide	Result 141000	LOQ 9000	Units ug/L
-------------------------	---	--------------------------------	---------------------------	----------------------

MW-45	Collect Date	06/23/2022 12:02	Lab ID	22206283503
	Receive Date	06/28/2022 09:28	Matrix	Water

EPA RSK-175

*Results and limits are adjusted for dilution.

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	10	07/07/22 11:06	744842	BDP	NA

CAS# 124-38-9	Parameter Carbon Dioxide	Result 39800	LOQ 9000	Units ug/L
-------------------------	---	-------------------------------	---------------------------	----------------------



Report#: 222062835
Project ID: HS22061314

Report Date: 07/07/2022

GC Volatiles QC Summary

Analytical Batch 744842		Client ID MB744842	Lab ID 2367943	Sample Type MB	Prep Date NA	Analysis Date 07/07/22 10:29	Matrix Water	LCS744842 2367944	LCS NA	07/07/22 10:19	Water	LCSD744842 2367945	LCSD NA	07/07/22 10:24	Water
EPA RSK-175		Units Result	ug/L LOQ	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit			
Carbon Dioxide	124-38-9	<900	900	8700	4210	48	38 - 147	8700	6380	73	41*	40			



Subcontract Chain of Custody

www.alsglobal.com

Client ID: ALS Houston - ALS Environmental - Houston, TX
SDG: 222062835
PM: RWL



SAMPLING STATE: Texas

COC ID: 19035

SUBCONTRACT TO:

Pace Analytical
7979 Innovation Park Drive
Baton Rouge, LA 70820

Phone: +1 225 769 4900

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Stancilff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@alsglobal.com
Alternate Contact: Jurnoke M. Lawal
Email: jurnoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancilff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS22061314
TSR: Houston House Acct

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS22061314-02	MW-88	Groundwater	23 Jun 2022 06:58
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			11 Jul 2022
2. HS22061314-03	MW-49	Groundwater	23 Jun 2022 10:57
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			11 Jul 2022
3. HS22061314-04	MW-45	Groundwater	23 Jun 2022 12:02
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			11 Jul 2022

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

Relinquished By:

Date/Time:

Received By:

Date/Time:

Cooler ID(s):

Temperature(s):

Relinquished By: TS Date/Time: 6-27-22 15:00
Received By: Tyler D. Smith Date/Time: 6/28/22 9:28
Cooler ID(s): 5789 1994 8805 Temperature(s): 14/28/22 9:28
EQ2 0.8



SAMPLE RECEIVING CHECKLIST



SAMPLE DELIVERY GROUP 222062835			CHECKLIST		YES	NO
Client ALS Houston - ALS Environmental - Houston, TX	PM R/Ve	Transport Method FEDEX	Samples received with proper thermal preservation?	☒	☐	
Profile Number 284627	Received By Perkins, Brennan		Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☒	☐	
Line Item(s) 6 - Perm Gases	Receive Date(s) 06/28/22		COC relinquished and complete (including sample IDs, collect times, and sampler)?	☒	☐	
			All containers received in good condition and within hold time?	☒	☐	
			All sample labels and containers received match the chain of custody?	☒	☐	
			Preservative added to any containers?	☐	☒	
			If received, was headspace for VOC water containers < 6mm?	☒	☐	
			Samples collected in containers provided by Pace Gulf Coast?	☒	☐	
COOLERS			DISCREPANCIES	LAB PRESERVATIONS		
Airbill	Thermometer ID: E42	Temp °C	None	None		
5789 1994 8805		0.8				
NOTES						



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

July 08, 2022

Hugh Robotham
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS22061396**

Laboratory Results for: **11129300 Indian Basin**

Dear Hugh Robotham,

ALS Environmental received 5 sample(s) on Jun 25, 2022 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dane J. Wacasey'.

Generated By: JUMOKE.LAWAL

Dane J. Wacasey

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061396

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22061396-01	11129300-TB-062422	Water	CG-061422 -112	24-Jun-2022 00:00	25-Jun-2022 09:00	☐
HS22061396-02	MW-106	Groundwater		24-Jun-2022 08:54	25-Jun-2022 09:00	☐
HS22061396-03	MW-111	Groundwater		24-Jun-2022 11:35	25-Jun-2022 09:00	☐
HS22061396-04	MW-70	Groundwater		24-Jun-2022 12:45	25-Jun-2022 09:00	☐
HS22061396-05	MW-66	Groundwater		24-Jun-2022 13:52	25-Jun-2022 09:00	☐

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061396

CASE NARRATIVE**Work Order Comments**

- The analysis for Dissolved CO2 was subcontracted to Pace Analytical Gulf Coast in Baton Rouge LA. Final report attached.

GC Semivolatiles by Method RSK-175**Batch ID: R412066**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260**Batch ID: R412048**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020A**Batch ID: 180738**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: 180807

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Wet Chemistry by Method M2540C**Batch ID: R412101****Sample ID: MW-111 (HS22061396-03DUP)**

- The RPD between the sample and its duplicate was above the RPD limit

WetChemistry by Method SM2320B**Batch ID: R412361**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.4.2**Batch ID: R412313**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C**Batch ID: R412201**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM5310B**Batch ID: R412255**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061396

CASE NARRATIVE

WetChemistry by Method E300

Batch ID: R411553

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM4500 S2-D

Batch ID: 180763

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: 11129300-TB-062422
Collection Date: 24-Jun-2022 00:00

ANALYTICAL REPORT

WorkOrder:HS22061396
Lab ID:HS22061396-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260					Analyst: ZQM
Benzene	U		0.20	1.0	ug/L	1	01-Jul-2022 16:24
Ethylbenzene	U		0.30	1.0	ug/L	1	01-Jul-2022 16:24
Toluene	U		0.20	1.0	ug/L	1	01-Jul-2022 16:24
Xylenes, Total	U		0.30	1.0	ug/L	1	01-Jul-2022 16:24
Surr: 1,2-Dichloroethane-d4	99.0			70-126	%REC	1	01-Jul-2022 16:24
Surr: 4-Bromofluorobenzene	99.5			77-113	%REC	1	01-Jul-2022 16:24
Surr: Dibromofluoromethane	101			77-123	%REC	1	01-Jul-2022 16:24
Surr: Toluene-d8	101			82-127	%REC	1	01-Jul-2022 16:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-106
 Collection Date: 24-Jun-2022 08:54

ANALYTICAL REPORT

WorkOrder:HS22061396
 Lab ID:HS22061396-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: ZQM			
Benzene	U		0.20	1.0	ug/L	1	01-Jul-2022 18:34
Ethylbenzene	U		0.30	1.0	ug/L	1	01-Jul-2022 18:34
Toluene	U		0.20	1.0	ug/L	1	01-Jul-2022 18:34
Xylenes, Total	U		0.30	1.0	ug/L	1	01-Jul-2022 18:34
Surr: 1,2-Dichloroethane-d4	101			70-126	%REC	1	01-Jul-2022 18:34
Surr: 4-Bromofluorobenzene	95.7			77-113	%REC	1	01-Jul-2022 18:34
Surr: Dibromofluoromethane	101			77-123	%REC	1	01-Jul-2022 18:34
Surr: Toluene-d8	97.9			82-127	%REC	1	01-Jul-2022 18:34
DISSOLVED GASES BY RSK-175		Method:RSK-175		Analyst: PPM			
Methane	1.75		0.107	0.500	ug/L	1	01-Jul-2022 09:55
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 05-Jul-2022		Analyst: JHD	
Calcium	106		0.0340	0.500	mg/L	1	07-Jul-2022 13:02
Iron	0.583		0.0120	0.200	mg/L	1	07-Jul-2022 13:02
Magnesium	39.6		0.0100	0.200	mg/L	1	07-Jul-2022 13:02
Manganese	0.0373		0.000700	0.00500	mg/L	1	07-Jul-2022 13:02
Potassium	3.12		0.0180	0.200	mg/L	1	07-Jul-2022 13:02
Sodium	3.81		0.0140	0.200	mg/L	1	07-Jul-2022 13:02
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 01-Jul-2022		Analyst: JHD	
Iron	U		0.0120	0.200	mg/L	1	01-Jul-2022 18:15
Manganese	0.0176		0.000700	0.00500	mg/L	1	01-Jul-2022 18:15
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	3.08		0.200	0.500	mg/L	1	25-Jun-2022 14:36
Fluoride	0.132		0.0500	0.100	mg/L	1	25-Jun-2022 14:36
Nitrogen, Nitrate (As N)	3.47		0.0300	0.100	mg/L	1	25-Jun-2022 14:36
Nitrogen, Nitrite (As N)	0.199		0.0300	0.100	mg/L	1	25-Jun-2022 14:36
Sulfate	23.5		0.200	0.500	mg/L	1	25-Jun-2022 14:36
Nitrate/Nitrite (as N)	3.67		0.0300	0.200	mg/L	1	25-Jun-2022 14:36
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: CWG			
Total Dissolved Solids (Residue, Filterable)	428		5.00	10.0	mg/L	1	30-Jun-2022 15:35
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	332		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Total (As CaCO3)	332		5.00	5.00	mg/L	1	02-Jul-2022 12:58
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011		Method:SM4500 S2-D		Prep:SM4500 S2-D / 30-Jun-2022		Analyst: MZD	
Sulfide	U		0.0110	0.0500	mg/L	1	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: MW-106
Collection Date: 24-Jun-2022 08:54

ANALYTICAL REPORT

WorkOrder:HS22061396
Lab ID:HS22061396-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B		Analyst: MZD			
Organic Carbon, Total	0.647	J	0.500	1.00	mg/L	1	06-Jul-2022 04:55
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: MZD			
Reactive Sulfide	U	n	100	100	mg/L	1	06-Jul-2022 14:30
SUBCONTRACT ANALYSIS - RSK		Method:NA		Analyst: SUB			
Subcontract Analysis	See Attached		0		NA	1	08-Jul-2022 10:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-111
 Collection Date: 24-Jun-2022 11:35

ANALYTICAL REPORT

WorkOrder:HS22061396
 Lab ID:HS22061396-03
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260				Analyst: ZQM	
Benzene	U		0.20	1.0	ug/L	1	01-Jul-2022 18:55
Ethylbenzene	U		0.30	1.0	ug/L	1	01-Jul-2022 18:55
Toluene	U		0.20	1.0	ug/L	1	01-Jul-2022 18:55
Xylenes, Total	U		0.30	1.0	ug/L	1	01-Jul-2022 18:55
Surr: 1,2-Dichloroethane-d4	99.9			70-126	%REC	1	01-Jul-2022 18:55
Surr: 4-Bromofluorobenzene	101			77-113	%REC	1	01-Jul-2022 18:55
Surr: Dibromofluoromethane	100			77-123	%REC	1	01-Jul-2022 18:55
Surr: Toluene-d8	99.2			82-127	%REC	1	01-Jul-2022 18:55
DISSOLVED GASES BY RSK-175		Method:RSK-175				Analyst: PPM	
Methane	2.83		0.107	0.500	ug/L	1	01-Jul-2022 10:04
ICP-MS METALS BY SW6020A		Method:SW6020A				Prep:SW3010A / 05-Jul-2022	Analyst: JHD
Calcium	134		0.0340	0.500	mg/L	1	07-Jul-2022 13:05
Iron	0.402		0.0120	0.200	mg/L	1	07-Jul-2022 13:05
Magnesium	53.9		0.0100	0.200	mg/L	1	07-Jul-2022 13:05
Manganese	0.0263		0.000700	0.00500	mg/L	1	07-Jul-2022 13:05
Potassium	1.58		0.0180	0.200	mg/L	1	07-Jul-2022 13:05
Sodium	20.4		0.0140	0.200	mg/L	1	07-Jul-2022 13:05
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)				Prep:SW3010A / 01-Jul-2022	Analyst: JHD
Iron	U		0.0120	0.200	mg/L	1	01-Jul-2022 18:34
Manganese	0.00382	J	0.000700	0.00500	mg/L	1	01-Jul-2022 18:34
ANIONS BY E300.0, REV 2.1, 1993		Method:E300				Analyst: TH	
Chloride	33.9		0.200	0.500	mg/L	1	25-Jun-2022 14:52
Fluoride	0.399		0.0500	0.100	mg/L	1	25-Jun-2022 14:52
Nitrogen, Nitrate (As N)	1.47		0.0300	0.100	mg/L	1	25-Jun-2022 14:52
Nitrogen, Nitrite (As N)	U		0.0300	0.100	mg/L	1	25-Jun-2022 14:52
Sulfate	215		1.00	2.50	mg/L	5	25-Jun-2022 15:14
Nitrate/Nitrite (as N)	1.47		0.0300	0.200	mg/L	1	25-Jun-2022 14:52
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C				Analyst: CWG	
Total Dissolved Solids (Residue, Filterable)	768		5.00	10.0	mg/L	1	30-Jun-2022 15:35
ALKALINITY BY SM 2320B-2011		Method:SM2320B				Analyst: JAC	
Alkalinity, Bicarbonate (As CaCO3)	270		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Total (As CaCO3)	270		5.00	5.00	mg/L	1	02-Jul-2022 12:58
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011		Method:SM4500 S2-D				Prep:SM4500 S2-D / 30-Jun-2022	Analyst: MZD
Sulfide	U		0.0110	0.0500	mg/L	1	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: MW-111
Collection Date: 24-Jun-2022 11:35

ANALYTICAL REPORT

WorkOrder:HS22061396
Lab ID:HS22061396-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B		Analyst: MZD			
Organic Carbon, Total	0.550	J	0.500	1.00	mg/L	1	06-Jul-2022 05:07
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: MZD			
Reactive Sulfide	U	n	100	100	mg/L	1	06-Jul-2022 14:30
SUBCONTRACT ANALYSIS - RSK		Method:NA		Analyst: SUB			
Subcontract Analysis	See Attached		0		NA	1	08-Jul-2022 10:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-70
 Collection Date: 24-Jun-2022 12:45

ANALYTICAL REPORT

WorkOrder:HS22061396
 Lab ID:HS22061396-04
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: ZQM			
Benzene	U		0.20	1.0	ug/L	1	01-Jul-2022 19:17
Ethylbenzene	U		0.30	1.0	ug/L	1	01-Jul-2022 19:17
Toluene	U		0.20	1.0	ug/L	1	01-Jul-2022 19:17
Xylenes, Total	U		0.30	1.0	ug/L	1	01-Jul-2022 19:17
Surr: 1,2-Dichloroethane-d4	101			70-126	%REC	1	01-Jul-2022 19:17
Surr: 4-Bromofluorobenzene	93.4			77-113	%REC	1	01-Jul-2022 19:17
Surr: Dibromofluoromethane	102			77-123	%REC	1	01-Jul-2022 19:17
Surr: Toluene-d8	97.0			82-127	%REC	1	01-Jul-2022 19:17
DISSOLVED GASES BY RSK-175		Method:RSK-175		Analyst: PPM			
Methane	1.02		0.107	0.500	ug/L	1	01-Jul-2022 10:14
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 05-Jul-2022		Analyst: JHD	
Calcium	76.3		0.0340	0.500	mg/L	1	07-Jul-2022 13:07
Iron	2.65		0.0120	0.200	mg/L	1	07-Jul-2022 13:07
Magnesium	30.4		0.0100	0.200	mg/L	1	07-Jul-2022 13:07
Manganese	0.0223		0.000700	0.00500	mg/L	1	07-Jul-2022 13:07
Potassium	1.40		0.0180	0.200	mg/L	1	07-Jul-2022 13:07
Sodium	14.1		0.0140	0.200	mg/L	1	07-Jul-2022 13:07
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 01-Jul-2022		Analyst: JHD	
Iron	U		0.0120	0.200	mg/L	1	01-Jul-2022 18:36
Manganese	0.00125	J	0.000700	0.00500	mg/L	1	01-Jul-2022 18:36
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	9.84		0.200	0.500	mg/L	1	25-Jun-2022 14:58
Fluoride	0.361		0.0500	0.100	mg/L	1	25-Jun-2022 14:58
Nitrogen, Nitrate (As N)	2.89		0.0300	0.100	mg/L	1	25-Jun-2022 14:58
Nitrogen, Nitrite (As N)	0.127		0.0300	0.100	mg/L	1	25-Jun-2022 14:58
Sulfate	61.9		0.200	0.500	mg/L	1	25-Jun-2022 14:58
Nitrate/Nitrite (as N)	3.01		0.0300	0.200	mg/L	1	25-Jun-2022 14:58
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: CWG			
Total Dissolved Solids (Residue, Filterable)	388		5.00	10.0	mg/L	1	01-Jul-2022 13:57
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	266		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Total (As CaCO3)	266		5.00	5.00	mg/L	1	02-Jul-2022 12:58
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011		Method:SM4500 S2-D		Prep:SM4500 S2-D / 30-Jun-2022		Analyst: MZD	
Sulfide	0.0720		0.0110	0.0500	mg/L	1	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: MW-70
Collection Date: 24-Jun-2022 12:45

ANALYTICAL REPORT

WorkOrder:HS22061396
Lab ID:HS22061396-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B		Analyst: MZD			
Organic Carbon, Total	0.524	J	0.500	1.00	mg/L	1	06-Jul-2022 05:19
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: MZD			
Reactive Sulfide	U	n	100	100	mg/L	1	06-Jul-2022 14:30
SUBCONTRACT ANALYSIS - RSK		Method:NA		Analyst: SUB			
Subcontract Analysis	See Attached		0		NA	1	08-Jul-2022 10:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-66
 Collection Date: 24-Jun-2022 13:52

ANALYTICAL REPORT

WorkOrder:HS22061396
 Lab ID:HS22061396-05
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: ZQM			
Benzene	U		0.20	1.0	ug/L	1	01-Jul-2022 19:38
Ethylbenzene	U		0.30	1.0	ug/L	1	01-Jul-2022 19:38
Toluene	U		0.20	1.0	ug/L	1	01-Jul-2022 19:38
Xylenes, Total	U		0.30	1.0	ug/L	1	01-Jul-2022 19:38
Surr: 1,2-Dichloroethane-d4	101			70-126	%REC	1	01-Jul-2022 19:38
Surr: 4-Bromofluorobenzene	97.6			77-113	%REC	1	01-Jul-2022 19:38
Surr: Dibromofluoromethane	101			77-123	%REC	1	01-Jul-2022 19:38
Surr: Toluene-d8	98.0			82-127	%REC	1	01-Jul-2022 19:38
DISSOLVED GASES BY RSK-175		Method:RSK-175		Analyst: PPM			
Methane	1.82		0.107	0.500	ug/L	1	01-Jul-2022 10:34
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 05-Jul-2022		Analyst: JHD	
Calcium	139		0.0340	0.500	mg/L	1	07-Jul-2022 13:09
Iron	0.0731	J	0.0120	0.200	mg/L	1	07-Jul-2022 13:09
Magnesium	53.6		0.0100	0.200	mg/L	1	07-Jul-2022 13:09
Manganese	0.00249	J	0.000700	0.00500	mg/L	1	07-Jul-2022 13:09
Potassium	1.20		0.0180	0.200	mg/L	1	07-Jul-2022 13:09
Sodium	11.7		0.0140	0.200	mg/L	1	07-Jul-2022 13:09
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 01-Jul-2022		Analyst: JHD	
Iron	U		0.0120	0.200	mg/L	1	01-Jul-2022 18:38
Manganese	0.000862	J	0.000700	0.00500	mg/L	1	01-Jul-2022 18:38
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	8.34		0.200	0.500	mg/L	1	25-Jun-2022 15:03
Fluoride	0.438		0.0500	0.100	mg/L	1	25-Jun-2022 15:03
Nitrogen, Nitrate (As N)	0.306		0.0300	0.100	mg/L	1	25-Jun-2022 15:03
Nitrogen, Nitrite (As N)	0.0780	J	0.0300	0.100	mg/L	1	25-Jun-2022 15:03
Sulfate	358		2.00	5.00	mg/L	10	25-Jun-2022 16:17
Nitrate/Nitrite (as N)	0.384		0.0300	0.200	mg/L	1	25-Jun-2022 15:03
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: CWG			
Total Dissolved Solids (Residue, Filterable)	836		5.00	10.0	mg/L	1	01-Jul-2022 13:57
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	249		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	02-Jul-2022 12:58
Alkalinity, Total (As CaCO3)	249		5.00	5.00	mg/L	1	02-Jul-2022 12:58
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011		Method:SM4500 S2-D		Prep:SM4500 S2-D / 30-Jun-2022		Analyst: MZD	
Sulfide	0.113		0.0110	0.0500	mg/L	1	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: MW-66
Collection Date: 24-Jun-2022 13:52

ANALYTICAL REPORT

WorkOrder:HS22061396
Lab ID:HS22061396-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B				Analyst: MZD	
Organic Carbon, Total	U		0.500	1.00	mg/L	1	06-Jul-2022 05:59
REACTIVE SULFIDE		Method:SW7.3.4.2				Analyst: MZD	
Reactive Sulfide	U	n	100	100	mg/L	1	06-Jul-2022 14:30
SUBCONTRACT ANALYSIS - RSK		Method:NA				Analyst: SUB	
Subcontract Analysis	See Attached		0		NA	1	08-Jul-2022 10:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-22

Weight / Prep Log

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061396

Batch ID: 180455 Start Date: 25 Jun 2022 08:00 End Date: 25 Jun 2022 08:30

Method: SAMPLE FILTRATION - 0.45 MICRON FILTER Prep Code: FILTRATION

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061396-02		100 (mL)	100 (mL)	1	120 mL Plastic Neat
HS22061396-03		100 (mL)	100 (mL)	1	120 mL Plastic Neat
HS22061396-04		100 (mL)	100 (mL)	1	120 mL Plastic Neat
HS22061396-05		100 (mL)	100 (mL)	1	120 mL Plastic Neat

Batch ID: 180738 Start Date: 01 Jul 2022 11:00 End Date: 01 Jul 2022 15:00

Method: DISS METALS PREP - WATER - SW3010A Prep Code: 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061396-02		10 (mL)	10 (mL)	1	120 mL Plastic Neat
HS22061396-03		10 (mL)	10 (mL)	1	120 mL Plastic Neat
HS22061396-04		10 (mL)	10 (mL)	1	120 mL Plastic Neat
HS22061396-05		10 (mL)	10 (mL)	1	120 mL Plastic Neat

Batch ID: 180763 Start Date: 30 Jun 2022 11:10 End Date: 30 Jun 2022 12:30

Method: SULFIDE METHYLENE BLUE PREP SM4500 S2 D Prep Code: SULFIDE_W_METHYLENE PREP

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061396-02		50 (mL)	50 (mL)	1	250 mL plastic, NaOH
HS22061396-03		50 (mL)	50 (mL)	1	250 mL plastic, NaOH
HS22061396-04		50 (mL)	50 (mL)	1	250 mL plastic, NaOH
HS22061396-05		50 (mL)	50 (mL)	1	250 mL plastic, NaOH

Batch ID: 180807 Start Date: 05 Jul 2022 12:30 End Date: 05 Jul 2022 16:30

Method: WATER - SW3010A Prep Code: 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061396-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22061396-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22061396-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS22061396-05		10 (mL)	10 (mL)	1	120 plastic HNO3

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Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 180738 (0)		Test Name : DISSOLVED METALS BY SW6020A			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54		01 Jul 2022 11:00	01 Jul 2022 18:15	1
HS22061396-03	MW-111	24 Jun 2022 11:35		01 Jul 2022 11:00	01 Jul 2022 18:34	1
HS22061396-04	MW-70	24 Jun 2022 12:45		01 Jul 2022 11:00	01 Jul 2022 18:36	1
HS22061396-05	MW-66	24 Jun 2022 13:52		01 Jul 2022 11:00	01 Jul 2022 18:38	1
Batch ID: 180763 (0)		Test Name : SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54		30 Jun 2022 11:10	01 Jul 2022 15:53	1
HS22061396-03	MW-111	24 Jun 2022 11:35		30 Jun 2022 11:10	01 Jul 2022 15:53	1
HS22061396-04	MW-70	24 Jun 2022 12:45		30 Jun 2022 11:10	01 Jul 2022 15:53	1
HS22061396-05	MW-66	24 Jun 2022 13:52		30 Jun 2022 11:10	01 Jul 2022 15:53	1
Batch ID: 180807 (0)		Test Name : ICP-MS METALS BY SW6020A			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54		05 Jul 2022 12:30	07 Jul 2022 13:02	1
HS22061396-03	MW-111	24 Jun 2022 11:35		05 Jul 2022 12:30	07 Jul 2022 13:05	1
HS22061396-04	MW-70	24 Jun 2022 12:45		05 Jul 2022 12:30	07 Jul 2022 13:07	1
HS22061396-05	MW-66	24 Jun 2022 13:52		05 Jul 2022 12:30	07 Jul 2022 13:09	1
Batch ID: R411553 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			25 Jun 2022 14:36	1
HS22061396-03	MW-111	24 Jun 2022 11:35			25 Jun 2022 15:14	5
HS22061396-03	MW-111	24 Jun 2022 11:35			25 Jun 2022 14:52	1
HS22061396-04	MW-70	24 Jun 2022 12:45			25 Jun 2022 14:58	1
HS22061396-05	MW-66	24 Jun 2022 13:52			25 Jun 2022 16:17	10
HS22061396-05	MW-66	24 Jun 2022 13:52			25 Jun 2022 15:03	1
Batch ID: R412048 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			01 Jul 2022 18:34	1
HS22061396-03	MW-111	24 Jun 2022 11:35			01 Jul 2022 18:55	1
HS22061396-04	MW-70	24 Jun 2022 12:45			01 Jul 2022 19:17	1
HS22061396-05	MW-66	24 Jun 2022 13:52			01 Jul 2022 19:38	1
Batch ID: R412048 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water	
HS22061396-01	11129300-TB-062422	24 Jun 2022 00:00			01 Jul 2022 16:24	1
Batch ID: R412066 (0)		Test Name : DISSOLVED GASES BY RSK-175			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			01 Jul 2022 09:55	1
HS22061396-03	MW-111	24 Jun 2022 11:35			01 Jul 2022 10:04	1
HS22061396-04	MW-70	24 Jun 2022 12:45			01 Jul 2022 10:14	1
HS22061396-05	MW-66	24 Jun 2022 13:52			01 Jul 2022 10:34	1
Batch ID: R412101 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			30 Jun 2022 15:35	1
HS22061396-03	MW-111	24 Jun 2022 11:35			30 Jun 2022 15:35	1

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Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R412201 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Groundwater	
HS22061396-04	MW-70	24 Jun 2022 12:45			01 Jul 2022 13:57	1
HS22061396-05	MW-66	24 Jun 2022 13:52			01 Jul 2022 13:57	1
Batch ID: R412255 (0)		Test Name : TOTAL ORGANIC CARBON - SM5310B-2011			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			06 Jul 2022 04:55	1
HS22061396-03	MW-111	24 Jun 2022 11:35			06 Jul 2022 05:07	1
HS22061396-04	MW-70	24 Jun 2022 12:45			06 Jul 2022 05:19	1
HS22061396-05	MW-66	24 Jun 2022 13:52			06 Jul 2022 05:59	1
Batch ID: R412313 (0)		Test Name : REACTIVE SULFIDE			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			06 Jul 2022 14:30	1
HS22061396-03	MW-111	24 Jun 2022 11:35			06 Jul 2022 14:30	1
HS22061396-04	MW-70	24 Jun 2022 12:45			06 Jul 2022 14:30	1
HS22061396-05	MW-66	24 Jun 2022 13:52			06 Jul 2022 14:30	1
Batch ID: R412361 (0)		Test Name : ALKALINITY BY SM 2320B-2011			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			02 Jul 2022 12:58	1
HS22061396-03	MW-111	24 Jun 2022 11:35			02 Jul 2022 12:58	1
HS22061396-04	MW-70	24 Jun 2022 12:45			02 Jul 2022 12:58	1
HS22061396-05	MW-66	24 Jun 2022 13:52			02 Jul 2022 12:58	1
Batch ID: R412434 (0)		Test Name : SUBCONTRACT ANALYSIS - RSK			Matrix: Groundwater	
HS22061396-02	MW-106	24 Jun 2022 08:54			08 Jul 2022 10:12	1
HS22061396-03	MW-111	24 Jun 2022 11:35			08 Jul 2022 10:12	1
HS22061396-04	MW-70	24 Jun 2022 12:45			08 Jul 2022 10:12	1
HS22061396-05	MW-66	24 Jun 2022 13:52			08 Jul 2022 10:12	1

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Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412066 (0)		Instrument: FID-4		Method: DISSOLVED GASES BY RSK-175					
MBLK	Sample ID: MBLK-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:03					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726418		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	U	0.500							
LCS	Sample ID: LCS-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:12					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726419		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	8.981	0.500	9.647	0	93.1	75 - 125			
LCSD	Sample ID: LCSD-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:21					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726420		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	9.809	0.500	9.647	0	102	75 - 125	8.981	8.82	30
DUP	Sample ID: HS22061313-01DUP	Units: ug/L		Analysis Date: 01-Jul-2022 12:07					
Client ID:	Run ID: FID-4_412066	SeqNo: 6726437		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	8.345	0.500					9.121	8.89	30
The following samples were analyzed in this batch:									
HS22061396-02		HS22061396-03		HS22061396-04		HS22061396-05			

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Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: 180738 (0)		Instrument: ICPMS07		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
MBLK	Sample ID: MBLKF2-180738	Units: mg/L		Analysis Date: 05-Jul-2022 15:14					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729862		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

MBLK	Sample ID: MBLKF3-180738	Units: mg/L		Analysis Date: 05-Jul-2022 15:16					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729863		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

MBLK	Sample ID: MBLKF1-180738	Units: mg/L		Analysis Date: 05-Jul-2022 15:12					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729861		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

MBLK	Sample ID: MBLK-180738	Units: mg/L		Analysis Date: 05-Jul-2022 14:37					
Client ID:	Run ID: ICPMS07_412207	SeqNo: 6729782		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron U 0.200

Manganese U 0.00500

LCS	Sample ID: LCS-180738	Units: mg/L		Analysis Date: 01-Jul-2022 18:07					
Client ID:	Run ID: ICPMS07_412076	SeqNo: 6728996		PrepDate: 01-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron 5.237 0.200 5 0 105 80 - 120

Manganese 0.05176 0.00500 0.05 0 104 80 - 120

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: 180738 (0)		Instrument: ICPMS07		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
MS		Sample ID: HS22061548-01MS		Units: mg/L		Analysis Date: 01-Jul-2022 18:27			
Client ID:		Run ID: ICPMS07_412076		SeqNo: 6729006		PrepDate: 01-Jul-2022		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	5.086	0.200	5	0.0137	101	75 - 125			
Manganese	0.05253	0.00500	0.05	0.002166	101	75 - 125			
MSD		Sample ID: HS22061548-01MSD		Units: mg/L		Analysis Date: 01-Jul-2022 18:29			
Client ID:		Run ID: ICPMS07_412076		SeqNo: 6729007		PrepDate: 01-Jul-2022		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	5.383	0.200	5	0.0137	107	75 - 125	5.086	5.67	20
Manganese	0.05617	0.00500	0.05	0.002166	108	75 - 125	0.05253	6.7	20
PDS		Sample ID: HS22061548-01PDS		Units: mg/L		Analysis Date: 01-Jul-2022 18:31			
Client ID:		Run ID: ICPMS07_412076		SeqNo: 6729008		PrepDate: 01-Jul-2022		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	10.22	0.200	10	0.0137	102	75 - 125			
Manganese	0.1124	0.00500	0.1	0.002166	110	75 - 125			
SD		Sample ID: HS22061548-01SD		Units: mg/L		Analysis Date: 01-Jul-2022 18:25			
Client ID:		Run ID: ICPMS07_412076		SeqNo: 6729005		PrepDate: 01-Jul-2022		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Iron	U	1.00					0.0137	0	10
Manganese	U	0.0250					0.002166	0	10
The following samples were analyzed in this batch:									
		HS22061396-02		HS22061396-03		HS22061396-04		HS22061396-05	

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: 180807 (0)		Instrument: ICPMS07		Method: ICP-MS METALS BY SW6020A					
MBLK	Sample ID: MBLK-180807	Units: mg/L		Analysis Date: 06-Jul-2022 23:27					
Client ID:	Run ID: ICPMS07_412274	SeqNo: 6733043		PrepDate: 05-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	U	0.500							
Iron	U	0.200							
Magnesium	U	0.200							
Manganese	U	0.00500							
Potassium	U	0.200							
Sodium	0.03413	0.200							J
LCS	Sample ID: LCS-180807	Units: mg/L		Analysis Date: 06-Jul-2022 23:29					
Client ID:	Run ID: ICPMS07_412274	SeqNo: 6733044		PrepDate: 05-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	5.211	0.500	5	0	104	80 - 120			
Iron	5.21	0.200	5	0	104	80 - 120			
Magnesium	5.201	0.200	5	0	104	80 - 120			
Manganese	0.05064	0.00500	0.05	0	101	80 - 120			
Potassium	5.151	0.200	5	0	103	80 - 120			
Sodium	5.081	0.200	5	0	102	80 - 120			
MS	Sample ID: HS22061167-11MS	Units: mg/L		Analysis Date: 06-Jul-2022 23:35					
Client ID:	Run ID: ICPMS07_412274	SeqNo: 6733047		PrepDate: 05-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Calcium	12.76	0.500	5	8.004	95.2	80 - 120			
Iron	5.616	0.200	5	0.6386	99.6	80 - 120			
Magnesium	7.688	0.200	5	2.849	96.8	80 - 120			
Manganese	0.153	0.00500	0.05	0.1078	90.5	80 - 120			
Potassium	7.339	0.200	5	2.646	93.8	80 - 120			
Sodium	15.13	0.200	5	10.65	89.5	80 - 120			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: 180807 (0)		Instrument: ICPMS07		Method: ICP-MS METALS BY SW6020A					
MSD	Sample ID: HS22061167-11MSD	Units: mg/L		Analysis Date: 06-Jul-2022 23:37					
Client ID:	Run ID: ICPMS07_412274	SeqNo: 6733048		PrepDate: 05-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Calcium	12.48	0.500	5	8.004	89.5	80 - 120	12.76	2.24	20
Iron	5.597	0.200	5	0.6386	99.2	80 - 120	5.616	0.352	20
Magnesium	7.494	0.200	5	2.849	92.9	80 - 120	7.688	2.55	20
Manganese	0.1515	0.00500	0.05	0.1078	87.4	80 - 120	0.153	0.999	20
Potassium	7.219	0.200	5	2.646	91.5	80 - 120	7.339	1.64	20
Sodium	14.92	0.200	5	10.65	85.3	80 - 120	15.13	1.39	20

PDS	Sample ID: HS22061167-11PDS	Units: mg/L		Analysis Date: 06-Jul-2022 23:39					
Client ID:	Run ID: ICPMS07_412274	SeqNo: 6733049		PrepDate: 05-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Calcium	16.48	0.500	10	8.004	84.8	75 - 125			
Iron	9.689	0.200	10	0.6386	90.5	75 - 125			
Magnesium	11.51	0.200	10	2.849	86.6	75 - 125			
Manganese	0.1972	0.00500	0.1	0.1078	89.4	75 - 125			
Potassium	11.12	0.200	10	2.646	84.8	75 - 125			
Sodium	18.61	0.200	10	10.65	79.5	75 - 125			

SD	Sample ID: HS22061167-11SD	Units: mg/L		Analysis Date: 06-Jul-2022 23:33					
Client ID:	Run ID: ICPMS07_412274	SeqNo: 6733046		PrepDate: 05-Jul-2022		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual

Calcium	8.134	2.50					8.004	1.63	10
Iron	0.6108	1.00					0.6386	0	10 J
Magnesium	2.776	1.00					2.849	2.55	10
Manganese	0.1079	0.0250					0.1078	0.167	10
Potassium	2.412	1.00					2.646	8.86	10
Sodium	11.27	1.00					10.65	5.78	10

The following samples were analyzed in this batch: HS22061396-02 HS22061396-03 HS22061396-04 HS22061396-05

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Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412048 (0)		Instrument: VOA4		Method: LOW LEVEL VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKW-220701	Units: ug/L		Analysis Date: 01-Jul-2022 12:17					
Client ID:	Run ID: VOA4_412048	SeqNo: 6726178		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	1.0							
Ethylbenzene	U	1.0							
Toluene	U	1.0							
Xylenes, Total	U	1.0							
Surr: 1,2-Dichloroethane-d4	50.8	1.0	50	0	102	70 - 123			
Surr: 4-Bromofluorobenzene	50.7	1.0	50	0	101	77 - 113			
Surr: Dibromofluoromethane	49.68	1.0	50	0	99.4	73 - 126			
Surr: Toluene-d8	49.76	1.0	50	0	99.5	81 - 120			

LCS	Sample ID: LCSW-220701	Units: ug/L		Analysis Date: 01-Jul-2022 11:34					
Client ID:	Run ID: VOA4_412048	SeqNo: 6726177		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	21.44	1.0	20	0	107	74 - 120			
Ethylbenzene	22.38	1.0	20	0	112	77 - 117			
Toluene	20.86	1.0	20	0	104	77 - 118			
Xylenes, Total	70.71	1.0	60	0	118	75 - 122			
Surr: 1,2-Dichloroethane-d4	53.16	1.0	50	0	106	70 - 123			
Surr: 4-Bromofluorobenzene	51.29	1.0	50	0	103	77 - 113			
Surr: Dibromofluoromethane	52.27	1.0	50	0	105	73 - 126			
Surr: Toluene-d8	48.4	1.0	50	0	96.8	81 - 120			

MS	Sample ID: HS22061378-14MS	Units: ug/L		Analysis Date: 01-Jul-2022 14:58					
Client ID:	Run ID: VOA4_412048	SeqNo: 6728110		PrepDate:		DF: 1000			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	22100	1000	20000	1416	103	70 - 127			
Ethylbenzene	22480	1000	20000	0	112	70 - 124			
Toluene	20060	1000	20000	0	100	70 - 123			
Xylenes, Total	69940	1000	60000	0	117	70 - 130			
Surr: 1,2-Dichloroethane-d4	49400	1000	50000	0	98.8	70 - 126			
Surr: 4-Bromofluorobenzene	49890	1000	50000	0	99.8	77 - 113			
Surr: Dibromofluoromethane	51970	1000	50000	0	104	77 - 123			
Surr: Toluene-d8	48530	1000	50000	0	97.1	82 - 127			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412048 (0)		Instrument: VOA4		Method: LOW LEVEL VOLATILES BY SW8260C					
MSD		Sample ID: HS22061378-14MSD		Units: ug/L		Analysis Date: 01-Jul-2022 15:20			
Client ID:		Run ID: VOA4_412048		SeqNo: 6728111		PrepDate:		DF: 1000	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	23010	1000	20000	1416	108	70 - 127	22100	4.04	20
Ethylbenzene	22840	1000	20000	0	114	70 - 124	22480	1.6	20
Toluene	21430	1000	20000	0	107	70 - 123	20060	6.58	20
Xylenes, Total	72490	1000	60000	0	121	70 - 130	69940	3.57	20
Surr: 1,2-Dichloroethane-d4	50620	1000	50000	0	101	70 - 126	49400	2.45	20
Surr: 4-Bromofluorobenzene	52670	1000	50000	0	105	77 - 113	49890	5.42	20
Surr: Dibromofluoromethane	51650	1000	50000	0	103	77 - 123	51970	0.62	20
Surr: Toluene-d8	51090	1000	50000	0	102	82 - 127	48530	5.13	20
The following samples were analyzed in this batch:									
HS22061396-01 HS22061396-02 HS22061396-03 HS22061396-04 HS22061396-05									

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: 180763 (0)		Instrument: UV-2450		Method: SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011					
MBLK	Sample ID: MBLK-180763	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071	SeqNo: 6726534		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	U	0.0500							
LCS	Sample ID: LCS-180763	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071	SeqNo: 6726533		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.19	0.0500	0.2	0	95.0	85 - 115			
MS	Sample ID: HS22061396-03MS	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID: MW-111	Run ID: UV-2450_412071	SeqNo: 6726531		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.187	0.0500	0.2	0.005	91.0	77 - 124			
MSD	Sample ID: HS22061396-03MSD	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID: MW-111	Run ID: UV-2450_412071	SeqNo: 6726532		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.201	0.0500	0.2	0.005	98.0	77 - 124	0.187	7.22	20
The following samples were analyzed in this batch:									
HS22061396-02		HS22061396-03		HS22061396-04		HS22061396-05			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R411553 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
MBLK	Sample ID: MBLK	Units: mg/L		Analysis Date: 25-Jun-2022 14:26					
Client ID:	Run ID: ICS-Integrion_411553		SeqNo: 6714029		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	U	0.500							
Fluoride	U	0.100							
Nitrogen, Nitrate (As N)	U	0.100							
Nitrogen, Nitrite (As N)	U	0.100							
Nitrate/Nitrite (as N)	U	0.200							
Sulfate	U	0.500							

LCS	Sample ID: LCS	Units: mg/L		Analysis Date: 25-Jun-2022 14:31					
Client ID:	Run ID: ICS-Integrion_411553		SeqNo: 6714030		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	19.67	0.500	20	0	98.4	90 - 110			
Fluoride	3.882	0.100	4	0	97.0	90 - 110			
Nitrogen, Nitrate (As N)	3.95	0.100	4	0	98.7	90 - 110			
Nitrogen, Nitrite (As N)	4.278	0.100	4	0	107	90 - 110			
Nitrate/Nitrite (as N)	8.227	0.200	8	0	103	90 - 110			
Sulfate	19.39	0.500	20	0	96.9	90 - 110			

MS	Sample ID: HS22061396-02MS	Units: mg/L		Analysis Date: 25-Jun-2022 14:42					
Client ID: MW-106	Run ID: ICS-Integrion_411553		SeqNo: 6714032		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	13.56	0.500	10	3.085	105	80 - 120			
Fluoride	1.941	0.100	2	0.1321	90.4	80 - 120			
Nitrogen, Nitrate (As N)	5.33	0.100	2	3.469	93.1	80 - 120			
Nitrogen, Nitrite (As N)	2.156	0.100	2	0.1988	97.8	80 - 120			
Nitrate/Nitrite (as N)	7.486	0.200	4	3.668	95.5	80 - 120			
Sulfate	32.78	0.500	10	23.48	93.0	80 - 120			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R411553 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
MSD		Sample ID: HS22061396-02MSD		Units: mg/L		Analysis Date: 25-Jun-2022 14:47			
Client ID: MW-106		Run ID: ICS-Integrion_411553		SeqNo: 6714033		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	13.54	0.500	10	3.085	105	80 - 120	13.56	0.155	20
Fluoride	1.895	0.100	2	0.1321	88.1	80 - 120	1.941	2.4	20
Nitrogen, Nitrate (As N)	5.318	0.100	2	3.469	92.5	80 - 120	5.33	0.225	20
Nitrogen, Nitrite (As N)	2.152	0.100	2	0.1988	97.7	80 - 120	2.156	0.162	20
Nitrate/Nitrite (as N)	7.47	0.200	4	3.668	95.1	80 - 120	7.486	0.207	20
Sulfate	32.77	0.500	10	23.48	92.9	80 - 120	32.78	0.0415	20
The following samples were analyzed in this batch:									
HS22061396-02		HS22061396-03		HS22061396-04		HS22061396-05			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412101 (0)		Instrument:		Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011				
MBLK	Sample ID: WBLK-063022	Units: mg/L		Analysis Date: 30-Jun-2022 15:35						
Client ID:	Run ID: Balance1_412101	SeqNo: 6727132		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0							
LCS	Sample ID: WLCS-063022	Units: mg/L		Analysis Date: 30-Jun-2022 15:35						
Client ID:	Run ID: Balance1_412101	SeqNo: 6727133		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		1054	10.0	1000	0	105	85 - 115			
DUP	Sample ID: HS22061465-01DUP	Units: mg/L		Analysis Date: 30-Jun-2022 15:35						
Client ID:	Run ID: Balance1_412101	SeqNo: 6727128		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		776	10.0				782	0.77	5	
DUP	Sample ID: HS22061396-03DUP	Units: mg/L		Analysis Date: 30-Jun-2022 15:35						
Client ID: MW-111	Run ID: Balance1_412101	SeqNo: 6727126		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		7560	10.0				768	163	5	F
The following samples were analyzed in this batch:		HS22061396-02		HS22061396-03						

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412201 (0)		Instrument:		Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011				
MBLK	Sample ID: WBLK-070122			Units: mg/L		Analysis Date: 01-Jul-2022 13:57				
Client ID:		Run ID: Balance1_412201			SeqNo: 6729451		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0							
LCS	Sample ID: WLCS-070122			Units: mg/L		Analysis Date: 01-Jul-2022 13:57				
Client ID:		Run ID: Balance1_412201			SeqNo: 6729452		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		1044	10.0	1000	0	104	85 - 115			
DUP	Sample ID: HS22061457-11DUP			Units: mg/L		Analysis Date: 01-Jul-2022 13:57				
Client ID:		Run ID: Balance1_412201			SeqNo: 6729447		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		4318	10.0				4310	0.185	5	
DUP	Sample ID: HS22061396-04DUP			Units: mg/L		Analysis Date: 01-Jul-2022 13:57				
Client ID: MW-70		Run ID: Balance1_412201			SeqNo: 6729430		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		386	10.0				388	0.517	5	
The following samples were analyzed in this batch:		HS22061396-04		HS22061396-05						

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412255 (0)		Instrument: TOC_04		Method: TOTAL ORGANIC CARBON - SM5310B-2011					
MBLK	Sample ID: MBLK-07052022	Units: mg/L		Analysis Date: 06-Jul-2022 03:24					
Client ID:	Run ID: TOC_04_412255	SeqNo: 6730711		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total	U	1.00							
LCS	Sample ID: LCS-07052022	Units: mg/L		Analysis Date: 06-Jul-2022 03:37					
Client ID:	Run ID: TOC_04_412255	SeqNo: 6730712		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total	9.729	1.00	10	0	97.3	85 - 115			
LCSD	Sample ID: LCSD-07052022	Units: mg/L		Analysis Date: 06-Jul-2022 03:51					
Client ID:	Run ID: TOC_04_412255	SeqNo: 6730713		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total	9.389	1.00	10	0	93.9	85 - 115	9.729	3.56	20
MS	Sample ID: HS22061663-16MS	Units: mg/L		Analysis Date: 06-Jul-2022 04:17					
Client ID:	Run ID: TOC_04_412255	SeqNo: 6730715		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total	10.49	1.00	10	1.711	87.8	80 - 120			
The following samples were analyzed in this batch:									
HS22061396-02		HS22061396-03		HS22061396-04		HS22061396-05			

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412313 (0)		Instrument: WetChem_HS		Method: REACTIVE SULFIDE					
MBLK	Sample ID: MBLK-R412313	Units: mg/L		Analysis Date: 06-Jul-2022 14:30					
Client ID:	Run ID: WetChem_HS_412313		SeqNo: 6731938		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	U	100							
LCS	Sample ID: LCS-R412313	Units: mg/L		Analysis Date: 06-Jul-2022 14:30					
Client ID:	Run ID: WetChem_HS_412313		SeqNo: 6731937		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	69.6	100	100	0	69.6	20 - 120			J
MS	Sample ID: HS22061396-05MS	Units: mg/L		Analysis Date: 06-Jul-2022 14:30					
Client ID: MW-66	Run ID: WetChem_HS_412313		SeqNo: 6731939		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	65.6	100	100	0	65.6	20 - 120			J
The following samples were analyzed in this batch:									
		HS22061396-02	HS22061396-03	HS22061396-04	HS22061396-05				

ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061396

QC BATCH REPORT

Batch ID: R412361 (0)		Instrument: ManTech01		Method: ALKALINITY BY SM 2320B-2011					
MBLK	Sample ID: MBLK-R412361	Units: mg/L		Analysis Date: 02-Jul-2022 12:58					
Client ID:	Run ID: ManTech01_412361	SeqNo: 6733192		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00							
Alkalinity, Carbonate (As CaCO3)	U	5.00							
Alkalinity, Hydroxide (As CaCO3)	U	5.00							
Alkalinity, Total (As CaCO3)	U	5.00							

LCS	Sample ID: LCS-R412361	Units: mg/L		Analysis Date: 02-Jul-2022 12:58					
Client ID:	Run ID: ManTech01_412361	SeqNo: 6733191		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Carbonate (As CaCO3)	977.3	5.00	1000	0	97.7	85 - 115			
Alkalinity, Total (As CaCO3)	1008	5.00	1000	0	101	85 - 115			

LCSD	Sample ID: LCSD-R412361	Units: mg/L		Analysis Date: 02-Jul-2022 12:58					
Client ID:	Run ID: ManTech01_412361	SeqNo: 6733190		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Carbonate (As CaCO3)	969	5.00	1000	0	96.9	85 - 115	977.3	0.845	20
Alkalinity, Total (As CaCO3)	1003	5.00	1000	0	100	85 - 115	1008	0.55	20

DUP	Sample ID: HS22061428-21DUP	Units: mg/L		Analysis Date: 02-Jul-2022 12:58					
Client ID:	Run ID: ManTech01_412361	SeqNo: 6733193		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Bicarbonate (As CaCO3)	564	5.00					577.5	2.37	20
Alkalinity, Carbonate (As CaCO3)	U	5.00					0	0	20
Alkalinity, Hydroxide (As CaCO3)	U	5.00					0	0	20
Alkalinity, Total (As CaCO3)	564	5.00					577.5	2.37	20

The following samples were analyzed in this batch:

HS22061396-02	HS22061396-03	HS22061396-04	HS22061396-05
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ALS Houston, US

Date: 08-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061396

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
Date	
mg/L	Milligrams per Liter

ALS Houston, US

Date: 08-Jul-22

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-35	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2022	31-Dec-2022
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2021-080	31-Aug-2022
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932021-12	30-Jul-2022

ALS Houston, US

Date: 08-Jul-22

Sample Receipt Checklist

Work Order ID: HS22061396

Date/Time Received: 25-Jun-2022 09:00

Client Name: Glen Springs/CRA

Received by: Corey Grandits

Completed By: /S/ Niles D. Ranchod

24-Jun-2022 11:37

Reviewed by: /S/ Dane J. Wacasey

29-Jun-2022 15:09

eSignature

Date/Time

eSignature

Date/Time

Matrices: **W**Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒No ☐Not Present ☐

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

1 Page(s)

Chain of custody signed when relinquished and received?

Yes ☒No ☐

COC IDs:276020

Samplers name present on COC?

Yes ☐No ☒

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

3.0uc/3.5c

IR31

Cooler(s)/Kit(s):

49082

Date/Time sample(s) sent to storage:

6/25/2022

Water - VOA vials have zero headspace?

Yes ☒No ☐No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

Cincinnati, OH
+1 513 733 5336Everett, WA
+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

Page ____ of ____

COC ID: 276020

HS22061396

Glenn Springs Holdings, Inc.
11129300 Indian Basin

Customer Information		Project Information		ALS Project Manager:	
Purchase Order	4502865846 767-402-D02-3100	Project Name	11129300 Indian Basin	A	300_W (300 *NO3, NO2*, Cl, F, SO4) - [250P Neat-share]
Work Order		Project Number	11129300	B	TDS_W 2540C (2540C TDS) & Alkalinity - [250P Neat-share]
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C	8260_LL_W (8260 BTEX) - [3xVOAHCl]
Send Report To	Hugh Robotham	Invoice Attn	Accounts Payable	D	RSK175 (RSK-175 Methane) - [3xVOAHCl]
Address	PO Box 2148	Address	PO Box 2148	E	SUB_RSK (RSK-175 CO2 (Sub PACE B.R.)) - [3xVOA Neat]
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148	F	ICP_TW (6020 Total Ca, Fe, Mg, Mn, K, Na) - [120P HNO3]
Phone		Phone		G	ICP_DISS (6020 DISS Fe, Mn) - [120P HNO3] <i>Filter to Lab</i>
Fax		Fax		H	RS_W (Section 7 Reactive Sulfide) - [120P Neat]
e-Mail Address	Hugh.Robotham@arcadis.com	e-Mail Address	Chem_GSH@oxy.com	I	(4500 S2 D Sulfide) - [250P NaOH/ZnAc]
				J	TOC_W 5310B (5310B TOC) - [3xVOA H2SO4]

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	11129300-TB-	062422		Water	1.8	2			X								
2	MW-106	062422	0854	Groundwa	1.2,3,7,8	17	X	X	X	X	X	X	X	X	X	X	
3	MW-111	062422	1135	"	"	12	X	X	X	X	X	X	X	X	X	X	
4	MW-70	062422	1245	"	"	12	X	X	X	X	X	X	X	X	X	X	
5	MW-66	062422	1354	"	"	12	X	X	X	X	X	X	X	X	X	X	
6																	
7																	
8																	
9																	
0																	

Sampler(s) Please Print & Sign

Shipment Method

Required Turnaround Time: (Check Box)

☒ STD 10 Wk Days☐ 5 Wk Days☐ Other

Results Due Date:

Relinquished by:

Date:

Time:

Received by:

Received by Laboratory:

CURETA 6-24-22 0900

Checked by (Laboratory):

Logged by (Laboratory):

Date:

Time:

Notes:

GSH Indian Basin

Cooler ID

Cooler Temp.

QC Package: (Check One Box Below)

☒ Level II Std QC☐ Level III Std QC/Run Date☐ Level IV QA/QC/CLP

Other

☐ TRPP Checklist☐ TRPP Level IV

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035

- te: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2011 by ALS Environmental.

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: 05/25/22	Time: 1439	mm
	Name: [Signature]		Date: 05/25/22
	Company: [Signature]		

49083 JUN 2 5 2022



49083

ORIGIN ID: SGRA (432) 697-5400
 WILLIAM FERGUSON
 CHADIS
 1004 NORTH 816 SPRINGS
 SUITE 121
 MIDLAND, TX 79701
 UNITED STATES US

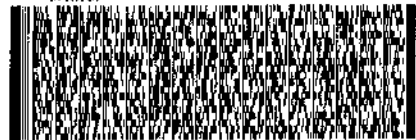
SHIP DATE: 17 JUN 22
 ACTWGT: 1.00 LB MAN
 CAD: 0221247/CAFE3512
 DIMS: 26x14x14 IN

TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

(281) 630-5656

REF: INDIAN BASIN - BO 96083 - DW

RMA: [Barcode]

FedEx
Express

FedEx

TRK# 5789 1994 6548

0221

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099

TX - US IAH



*154035 06/24 59132/2947/EE48



LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 07/07/2022

Report # 222062836



Project HS22061396

Samples Collected 6/24/22

Deliver To

Dane Wacasey
ALS Houston
10450 Stancliff Rd
Suite 210
Houston, TX 770994338
281-530-5656

Additional Recipients

Jumoke Lawal, ALS Houston





Report#: 222062836
Project ID: HS22061396

Report Date: 07/07/2022

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % difference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
 Pace Gulf Coast Report 222062836



Report#: 222062836
Project ID: HS22061396

Report Date: 07/07/2022

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234



Report#: 222062836
Project ID: HS22061396

Report Date: 07/07/2022

Case Narrative

Client: ALS Environmental - Houston, TX **Report:** 222062836

Pace Analytical Gulf Coast received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES GAS CHROMATOGRAPHY

In the EPA RSK-175 analysis for analytical batch 744842, the LCS/LCSD exhibited RPD failures.



Report#: 222062836
Project ID: HS22061396

Report Date: 07/07/2022

Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22206283601	MW-106	Water	6/24/22 08:54	6/28/22 09:28
22206283602	MW-111	Water	6/24/22 11:35	6/28/22 09:28
22206283603	MW-70	Water	6/24/22 12:45	6/28/22 09:28
22206283604	MW-66	Water	6/24/22 13:52	6/28/22 09:28



Report#: 222062836
Project ID: HS22061396

Report Date: 07/07/2022

Detect Summary

Results and Detection Limits are adjusted for dilution and moisture when applicable

EPA RSK-175						
Lab ID	Client ID	Parameter	Units	Result	Dil.	%Moist
22206283601	MW-106	Carbon Dioxide	ug/L	34400	10	NA
22206283602	MW-111	Carbon Dioxide	ug/L	27500	10	NA
22206283603	MW-70	Carbon Dioxide	ug/L	15800	1	NA
22206283604	MW-66	Carbon Dioxide	ug/L	22700	10	NA



Report#: 222062836
Project ID: HS22061396

Report Date: 07/07/2022

Sample Results

MW-106	Collect Date	06/24/2022 08:54	Lab ID	22206283601
	Receive Date	06/28/2022 09:28	Matrix	Water

EPA RSK-175

*Results and limits are adjusted for dilution.

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	10	07/07/22 13:53	744842	BDP	NA
CAS# 124-38-9	Parameter Carbon Dioxide		Result 34400	LOQ 9000			Units ug/L

MW-111	Collect Date	06/24/2022 11:35	Lab ID	22206283602
	Receive Date	06/28/2022 09:28	Matrix	Water

EPA RSK-175

*Results and limits are adjusted for dilution.

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	10	07/07/22 14:08	744842	BDP	NA
CAS# 124-38-9	Parameter Carbon Dioxide		Result 27500	LOQ 9000			Units ug/L

MW-70	Collect Date	06/24/2022 12:45	Lab ID	22206283603
	Receive Date	06/28/2022 09:28	Matrix	Water

EPA RSK-175

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	1	07/07/22 14:54	744873	BDP	NA
CAS# 124-38-9	Parameter Carbon Dioxide		Result 15800	LOQ 900			Units ug/L

MW-66	Collect Date	06/24/2022 13:52	Lab ID	22206283604
	Receive Date	06/28/2022 09:28	Matrix	Water

EPA RSK-175

*Results and limits are adjusted for dilution.

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	10	07/07/22 15:07	744873	BDP	NA
CAS# 124-38-9	Parameter Carbon Dioxide		Result 22700	LOQ 9000			Units ug/L



Report#: 222062836
Project ID: HS22061396

Report Date: 07/07/2022

GC Volatiles QC Summary

Analytical Batch 744842		Client ID MB744842	Lab ID 2367943	Sample Type MB	Prep Date NA	Analysis Date 07/07/22 10:29	Matrix Water	LCS744842 2367944 LCS NA 07/07/22 10:19	LCSD744842 2367945 LCSD NA 07/07/22 10:24				
EPA RSK-175		Units Result	ug/L LOQ	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit	
Carbon Dioxide	124-38-9	<900	900	8700	4210	48	38 - 147	8700	6380	73	41*	40	

Analytical Batch 744873		Client ID MB744873	Lab ID 2368098	Sample Type MB	Prep Date NA	Analysis Date 07/07/22 14:42	Matrix Water	LCS744873 2368099 LCS NA 07/07/22 14:27	LCSD744873 2368100 LCSD NA 07/07/22 14:35				
EPA RSK-175		Units Result	ug/L LOQ	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit	
Carbon Dioxide	124-38-9	<900	900	8700	7090	81	38 - 147	8700	7700	89	8	40	



ALS CUST

Client ID: ALS Houston - ALS Environmental - Houston, TX
SDG: 222062836
PM: RWE



+1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Texas

COC ID: 19054

SUBCONTRACT TO:

Pace Analytical
7979 Innovation Park Drive
Baton Rouge, LA 70820

Phone: +1 225 769 4900

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Stancilff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@alsglobal.com
Alternate Contact: Jumo M. Lawal
Email: jumo.m.lawal@alsglobal.com

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancilff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS22061396
TSR: Houston House Act

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			DUE DATE
1. HS22061396-02 MW-106		Groundwater	24 Jun 2022 08:54
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			12 Jul 2022
2. HS22061396-03 MW-111		Groundwater	24 Jun 2022 11:35
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			12 Jul 2022
3. HS22061396-04 MW-70		Groundwater	24 Jun 2022 12:54
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			12 Jul 2022
4. HS22061396-05 MW-66		Groundwater	24 Jun 2022 13:52
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			12 Jul 2022

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

Relinquished By:

Date/Time:

Received By: 9:28 FedEx 9:28 Date/Time:
Fedex 9/28/22 9/28/22 6/28/22 6:12 08
Cooler ID(s): 5789 1991 8805 Temperature(s):



SAMPLE RECEIVING CHECKLIST



SAMPLE DELIVERY GROUP 222062836			CHECKLIST		YES	NO
Client	PM R/We	Transport Method	Samples received with proper thermal preservation?		☒	☐
ALS Houston - ALS		FEDEX	Radioactivity is <1600 cpm? If no, record cpm value in notes section.		☒	☐
Environmental - Houston, TX			COC relinquished and complete (including sampleIDs, collect times, and sampler)?		☒	☐
Profile Number	Received By		All containers received in good condition and within hold time?		☒	☐
284627	Perkins, Brennan		All sample labels and containers received match the chain of custody?		☒	☐
Line Item(s)	Receive Date(s)		Preservative added to any containers?		☐	☒
6 - Perm Gases	06/28/22		If received, was headspace for VOC water containers < 6mm?		☒	☐
			Samples collected in containers provided by Pace Gulf Coast?		☒	☐
COOLERS			DISCREPANCIES	LAB PRESERVATIONS		
Airbill	Thermometer ID: E42	Temp °C	None		None	
		0.8				
NOTES						



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

July 11, 2022

Hugh Robotham
Glenn Springs Holdings, Inc.
PO Box 2148
Houston, TX 77252-2148

Work Order: **HS22061549**

Laboratory Results for: **11129300 Indian Basin**

Dear Hugh Robotham,

ALS Environmental received 2 sample(s) on Jun 29, 2022 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

Dane J. Wacasey

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061549

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS22061549-01	11129300-TB-062722	Water		27-Jun-2022 11:47	29-Jun-2022 09:50	☐
HS22061549-02	MW-127	Groundwater		27-Jun-2022 11:14	29-Jun-2022 09:50	☐

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061549

CASE NARRATIVE**Work Order Comments**

- The analysis for Dissolved CO2 was subcontracted to Pace Analytical Gulf Coast in Baton Rouge LA. Final report attached.

GC Semivolatiles by Method RSK-175**Batch ID: R412066**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260**Batch ID: R412279**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SW6020A**Batch ID: 180962****Sample ID: HS22061333-01MS**

- MS and MSD are for an unrelated sample (Manganese)

Batch ID: 180958**Sample ID: HS22070223-15MSD**

- MSD is for an unrelated sample

WetChemistry by Method SM5310B**Batch ID: R412533**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SW7.3.4.2**Batch ID: R412486**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C**Batch ID: R412205**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM2320B**Batch ID: R412262**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method E300**Batch ID: R411793**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Work Order: HS22061549

CASE NARRATIVE

WetChemistry by Method SM4500 S2-D

Batch ID: 180763

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: 11129300-TB-062722
Collection Date: 27-Jun-2022 11:47

ANALYTICAL REPORT

WorkOrder:HS22061549
Lab ID:HS22061549-01
Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260					Analyst: ZQM
Benzene	U		0.20	1.0	ug/L	1	06-Jul-2022 14:40
Ethylbenzene	U		0.30	1.0	ug/L	1	06-Jul-2022 14:40
Toluene	U		0.20	1.0	ug/L	1	06-Jul-2022 14:40
Xylenes, Total	U		0.30	1.0	ug/L	1	06-Jul-2022 14:40
Surr: 1,2-Dichloroethane-d4	108			70-126	%REC	1	06-Jul-2022 14:40
Surr: 4-Bromofluorobenzene	105			77-113	%REC	1	06-Jul-2022 14:40
Surr: Dibromofluoromethane	114			77-123	%REC	1	06-Jul-2022 14:40
Surr: Toluene-d8	95.8			82-127	%REC	1	06-Jul-2022 14:40

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
 Project: 11129300 Indian Basin
 Sample ID: MW-127
 Collection Date: 27-Jun-2022 11:14

ANALYTICAL REPORT

WorkOrder:HS22061549
 Lab ID:HS22061549-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: ZQM			
Benzene	U		0.20	1.0	ug/L	1	06-Jul-2022 18:37
Ethylbenzene	U		0.30	1.0	ug/L	1	06-Jul-2022 18:37
Toluene	U		0.20	1.0	ug/L	1	06-Jul-2022 18:37
Xylenes, Total	U		0.30	1.0	ug/L	1	06-Jul-2022 18:37
Surr: 1,2-Dichloroethane-d4	105			70-126	%REC	1	06-Jul-2022 18:37
Surr: 4-Bromofluorobenzene	101			77-113	%REC	1	06-Jul-2022 18:37
Surr: Dibromofluoromethane	104			77-123	%REC	1	06-Jul-2022 18:37
Surr: Toluene-d8	93.6			82-127	%REC	1	06-Jul-2022 18:37
DISSOLVED GASES BY RSK-175		Method:RSK-175		Analyst: PPM			
Methane	404		5.35	25.0	ug/L	50	01-Jul-2022 11:24
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 08-Jul-2022		Analyst: JHD	
Calcium	90.1		0.170	2.50	mg/L	5	08-Jul-2022 21:16
Iron	0.0419	J	0.0120	0.200	mg/L	1	11-Jul-2022 13:07
Magnesium	37.9		0.0500	1.00	mg/L	5	08-Jul-2022 21:16
Manganese	0.0207		0.000700	0.00500	mg/L	1	11-Jul-2022 13:07
Potassium	1.16		0.0180	0.200	mg/L	1	11-Jul-2022 13:07
Sodium	18.0		0.0700	1.00	mg/L	5	08-Jul-2022 21:16
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 08-Jul-2022		Analyst: JHD	
Iron	0.0289	J	0.0120	0.200	mg/L	1	09-Jul-2022 00:06
Manganese	0.0204		0.000700	0.00500	mg/L	1	09-Jul-2022 00:06
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	32.1		0.200	0.500	mg/L	1	29-Jun-2022 10:33
Fluoride	0.627		0.0500	0.100	mg/L	1	29-Jun-2022 10:33
Nitrogen, Nitrate (As N)	0.0540	J	0.0300	0.100	mg/L	1	29-Jun-2022 10:33
Nitrogen, Nitrite (As N)	0.122		0.0300	0.100	mg/L	1	29-Jun-2022 10:33
Sulfate	50.3		0.200	0.500	mg/L	1	29-Jun-2022 10:33
Nitrate/Nitrite (as N)	0.176	J	0.0300	0.200	mg/L	1	29-Jun-2022 10:33
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: CWG			
Total Dissolved Solids (Residue, Filterable)	528		5.00	10.0	mg/L	1	02-Jul-2022 14:18
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	344		5.00	5.00	mg/L	1	05-Jul-2022 19:56
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	05-Jul-2022 19:56
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	05-Jul-2022 19:56
Alkalinity, Total (As CaCO3)	344		5.00	5.00	mg/L	1	05-Jul-2022 19:56
SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011		Method:SM4500 S2-D		Prep:SM4500 S2-D / 30-Jun-2022		Analyst: MZD	
Sulfide	0.367		0.0110	0.0500	mg/L	1	01-Jul-2022 15:53

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
Sample ID: MW-127
Collection Date: 27-Jun-2022 11:14

ANALYTICAL REPORT

WorkOrder:HS22061549
Lab ID:HS22061549-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL ORGANIC CARBON - SM5310B-2011		Method:SM5310B		Analyst: MZD			
Organic Carbon, Total	1.11		0.500	1.00	mg/L	1	09-Jul-2022 03:29
REACTIVE SULFIDE		Method:SW7.3.4.2		Analyst: MZD			
Reactive Sulfide	U	n	100	100	mg/L	1	08-Jul-2022 13:00
SUBCONTRACT ANALYSIS - RSK		Method:NA		Analyst: SUB			
Subcontract Analysis	See Attached		0		NA	1	07-Jul-2022 17:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 11-Jul-22

Weight / Prep Log

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061549

Batch ID: 180614	Start Date: 29 Jun 2022 10:00	End Date: 29 Jun 2022 12:00
Method: SAMPLE FILTRATION - 0.45 MICRON FILTER	Prep Code: FILTRATION	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061549-02		100 (mL)	100 (mL)	1	120 mL Plastic Neat

Batch ID: 180763	Start Date: 30 Jun 2022 11:10	End Date: 30 Jun 2022 12:30
Method: SULFIDE METHYLENE BLUE PREP SM4500 S2 D	Prep Code: SULFIDE_W_METHYLENE PREP	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061549-02		50 (mL)	50 (mL)	1	250 mL plastic, NaOH

Batch ID: 180958	Start Date: 08 Jul 2022 09:30	End Date: 08 Jul 2022 13:30
Method: WATER - SW3010A	Prep Code: 3010A	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061549-02		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 180962	Start Date: 08 Jul 2022 10:00	End Date: 08 Jul 2022 14:00
Method: DISS METALS PREP - WATER - SW3010A	Prep Code: 3010A DISS	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS22061549-02		10 (mL)	10 (mL)	1	120 mL Plastic Neat

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 180763 (0)		Test Name : SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14		30 Jun 2022 11:10	01 Jul 2022 15:53	1
Batch ID: 180958 (0)		Test Name : ICP-MS METALS BY SW6020A			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14		08 Jul 2022 09:30	11 Jul 2022 13:07	1
HS22061549-02	MW-127	27 Jun 2022 11:14		08 Jul 2022 09:30	08 Jul 2022 21:16	5
Batch ID: 180962 (0)		Test Name : DISSOLVED METALS BY SW6020A			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14		08 Jul 2022 10:00	09 Jul 2022 00:06	1
Batch ID: R411793 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			29 Jun 2022 10:33	1
Batch ID: R412066 (0)		Test Name : DISSOLVED GASES BY RSK-175			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			01 Jul 2022 11:24	50
Batch ID: R412205 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			02 Jul 2022 14:18	1
Batch ID: R412262 (0)		Test Name : ALKALINITY BY SM 2320B-2011			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			05 Jul 2022 19:56	1
Batch ID: R412279 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			06 Jul 2022 18:37	1
Batch ID: R412279 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water	
HS22061549-01	11129300-TB-062722	27 Jun 2022 11:47			06 Jul 2022 14:40	1
Batch ID: R412405 (0)		Test Name : SUBCONTRACT ANALYSIS - RSK			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			07 Jul 2022 17:19	1
Batch ID: R412486 (0)		Test Name : REACTIVE SULFIDE			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			08 Jul 2022 13:00	1
Batch ID: R412533 (0)		Test Name : TOTAL ORGANIC CARBON - SM5310B-2011			Matrix: Groundwater	
HS22061549-02	MW-127	27 Jun 2022 11:14			09 Jul 2022 03:29	1

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R412066 (0)		Instrument: FID-4		Method: DISSOLVED GASES BY RSK-175					
MBLK	Sample ID: MBLK-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:03					
Client ID:	Run ID: FID-4_412066		SeqNo: 6726418		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	U	0.500							
LCS	Sample ID: LCS-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:12					
Client ID:	Run ID: FID-4_412066		SeqNo: 6726419		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	8.981	0.500	9.647	0	93.1	75 - 125			
LCSD	Sample ID: LCSD-220701	Units: ug/L		Analysis Date: 01-Jul-2022 09:21					
Client ID:	Run ID: FID-4_412066		SeqNo: 6726420		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	9.809	0.500	9.647	0	102	75 - 125	8.981	8.82	30
DUP	Sample ID: HS22061313-01DUP	Units: ug/L		Analysis Date: 01-Jul-2022 12:07					
Client ID:	Run ID: FID-4_412066		SeqNo: 6726437		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Methane	8.345	0.500					9.121	8.89	30
The following samples were analyzed in this batch: HS22061549-02									

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: 180958 (0)		Instrument: ICPMS07		Method: ICP-MS METALS BY SW6020A					
MBLK	Sample ID: MBLK-180958	Units: mg/L		Analysis Date: 08-Jul-2022 20:30					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6736963		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	U	0.500							
Iron	U	0.200							
Magnesium	0.01703	0.200							J
Manganese	U	0.00500							
Potassium	0.02348	0.200							J
Sodium	0.1061	0.200							J

LCS	Sample ID: LCS-180958	Units: mg/L		Analysis Date: 08-Jul-2022 20:32					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6736964		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	5.525	0.500	5	0	111	80 - 120			
Iron	5.665	0.200	5	0	113	80 - 120			
Magnesium	5.924	0.200	5	0	118	80 - 120			
Manganese	0.05589	0.00500	0.05	0	112	80 - 120			
Potassium	5.97	0.200	5	0	119	80 - 120			

LCS	Sample ID: LCS-180958	Units: mg/L		Analysis Date: 11-Jul-2022 12:46					
Client ID:	Run ID: ICPMS07_412634	SeqNo: 6739442		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sodium	5.434	0.200	5	0	109	80 - 120			

MS	Sample ID: HS22070223-15MS	Units: mg/L		Analysis Date: 08-Jul-2022 20:39					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6736967		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Calcium	22.32	0.500	5	17.9	88.2	80 - 120			
Iron	5.185	0.200	5	0.004518	104	80 - 120			
Magnesium	5.44	0.200	5	0.1085	107	80 - 120			
Manganese	0.05643	0.00500	0.05	0.005523	102	80 - 120			
Potassium	5.41	0.200	5	0.04159	107	80 - 120			
Sodium	5.691	0.200	5	0.3174	107	80 - 120			

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: 180958 (0)		Instrument: ICPMS07		Method: ICP-MS METALS BY SW6020A						
MSD		Sample ID: HS22070223-15MSD		Units: mg/L		Analysis Date: 08-Jul-2022 20:41				
Client ID:		Run ID: ICPMS07_412503		SeqNo: 6736968		PrepDate: 08-Jul-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	21.81	0.500	5	17.9	78.0	80 - 120	22.32	2.31	20	S
Iron	5.276	0.200	5	0.004518	105	80 - 120	5.185	1.73	20	
Magnesium	5.509	0.200	5	0.1085	108	80 - 120	5.44	1.26	20	
Manganese	0.05679	0.00500	0.05	0.005523	103	80 - 120	0.05643	0.625	20	
Potassium	5.468	0.200	5	0.04159	109	80 - 120	5.41	1.07	20	
Sodium	5.628	0.200	5	0.3174	106	80 - 120	5.691	1.12	20	
PDS		Sample ID: HS22070223-15PDS		Units: mg/L		Analysis Date: 08-Jul-2022 20:43				
Client ID:		Run ID: ICPMS07_412503		SeqNo: 6736969		PrepDate: 08-Jul-2022		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	30.31	0.500	10	17.9	124	75 - 125				
SD		Sample ID: HS22070223-15SD		Units: mg/L		Analysis Date: 08-Jul-2022 21:57				
Client ID:		Run ID: ICPMS07_412503		SeqNo: 6737027		PrepDate: 08-Jul-2022		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	17.15	2.50					17.9	4.2	10	
Iron	U	1.00					0	0	10	
Magnesium	0.1102	1.00					0.1085	0	10	J
Manganese	0.005473	0.0250					0.005523	0	10	J
Potassium	U	1.00					0.04159	0	10	
Sodium	0.08128	1.00					0.3174	0	10	J
The following samples were analyzed in this batch: HS22061549-02										

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: 180962 (0)		Instrument: ICPMS07		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
MBLK	Sample ID: MBLKF2-180962	Units: mg/L		Analysis Date: 08-Jul-2022 23:17					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6738585		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	U	0.200							
Manganese	U	0.00500							

MBLK	Sample ID: MBLKF1-180962	Units: mg/L		Analysis Date: 08-Jul-2022 23:14					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6738584		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	U	0.200							
Manganese	U	0.00500							

MBLK	Sample ID: MBLK-180962	Units: mg/L		Analysis Date: 08-Jul-2022 23:12					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6738583		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	U	0.200							
Manganese	U	0.00500							

LCS	Sample ID: LCS-180962	Units: mg/L		Analysis Date: 08-Jul-2022 23:19					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6738586		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	5.365	0.200	5	0	107	80 - 120			
Manganese	0.05353	0.00500	0.05	0	107	80 - 120			

MS	Sample ID: HS22061333-01MS	Units: mg/L		Analysis Date: 08-Jul-2022 23:25					
Client ID:	Run ID: ICPMS07_412503	SeqNo: 6738589		PrepDate: 08-Jul-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	5.095	0.200	5	0.003346	102	75 - 125			
Manganese	3.693	0.00500	0.05	3.595	196	75 - 125			SEO

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: 180962 (0)		Instrument: ICPMS07		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
MSD		Sample ID: HS22061333-01MSD		Units: mg/L		Analysis Date: 08-Jul-2022 23:27			
Client ID:		Run ID: ICPMS07_412503		SeqNo: 6738590		PrepDate: 08-Jul-2022		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	4.973	0.200	5	0.003346	99.4	75 - 125	5.095	2.43	20
Manganese	3.582	0.00500	0.05	3.595	-25.4	75 - 125	3.693	3.04	20 SEO
PDS		Sample ID: HS22061333-01PDS		Units: mg/L		Analysis Date: 08-Jul-2022 23:29			
Client ID:		Run ID: ICPMS07_412503		SeqNo: 6738591		PrepDate: 08-Jul-2022		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Iron	10.28	0.200	10	0.003346	103	75 - 125			
PDS		Sample ID: HS22061333-01PDS		Units: mg/L		Analysis Date: 11-Jul-2022 13:28			
Client ID:		Run ID: ICPMS07_412634		SeqNo: 6739499		PrepDate: 08-Jul-2022		DF: 20	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Manganese	4.925	0.100	2	3.178	87.3	75 - 125			
SD		Sample ID: HS22061333-01SD		Units: mg/L		Analysis Date: 08-Jul-2022 23:23			
Client ID:		Run ID: ICPMS07_412503		SeqNo: 6738588		PrepDate: 08-Jul-2022		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Iron	U	1.00					0.003346	0	10
SD		Sample ID: HS22061333-01SD		Units: mg/L		Analysis Date: 11-Jul-2022 13:26			
Client ID:		Run ID: ICPMS07_412634		SeqNo: 6739498		PrepDate: 08-Jul-2022		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Manganese	3.259	0.500					3.178	2.55	10
The following samples were analyzed in this batch: HS22061549-02									

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R412279 (0)		Instrument: VOA10		Method: LOW LEVEL VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKW-220706	Units: ug/L		Analysis Date: 06-Jul-2022 11:27					
Client ID:	Run ID: VOA10_412279	SeqNo: 6731242		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	1.0							
Ethylbenzene	U	1.0							
Toluene	U	1.0							
Xylenes, Total	U	1.0							
Surr: 1,2-Dichloroethane-d4	54.33	1.0	50	0	109	70 - 123			
Surr: 4-Bromofluorobenzene	51.72	1.0	50	0	103	77 - 113			
Surr: Dibromofluoromethane	57.42	1.0	50	0	115	73 - 126			
Surr: Toluene-d8	48.92	1.0	50	0	97.8	81 - 120			

LCS	Sample ID: VLCSW-220706	Units: ug/L		Analysis Date: 06-Jul-2022 10:44					
Client ID:	Run ID: VOA10_412279	SeqNo: 6731241		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	18.39	1.0	20	0	91.9	74 - 120			
Ethylbenzene	17.74	1.0	20	0	88.7	77 - 117			
Toluene	17.55	1.0	20	0	87.8	77 - 118			
Xylenes, Total	55.96	1.0	60	0	93.3	75 - 122			
Surr: 1,2-Dichloroethane-d4	54.3	1.0	50	0	109	70 - 123			
Surr: 4-Bromofluorobenzene	46.23	1.0	50	0	92.5	77 - 113			
Surr: Dibromofluoromethane	53.12	1.0	50	0	106	73 - 126			
Surr: Toluene-d8	47.28	1.0	50	0	94.6	81 - 120			

MS	Sample ID: HS22061693-20MS	Units: ug/L		Analysis Date: 06-Jul-2022 13:57					
Client ID:	Run ID: VOA10_412279	SeqNo: 6731811		PrepDate:		DF: 500			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	22560	500	10000	14240	83.1	70 - 127			
Ethylbenzene	10100	500	10000	1802	83.0	70 - 124			
Toluene	8591	500	10000	188.7	84.0	70 - 123			
Xylenes, Total	29320	500	30000	1390	93.1	70 - 130			
Surr: 1,2-Dichloroethane-d4	27490	500	25000	0	110	70 - 126			
Surr: 4-Bromofluorobenzene	23960	500	25000	0	95.8	77 - 113			
Surr: Dibromofluoromethane	27210	500	25000	0	109	77 - 123			
Surr: Toluene-d8	23860	500	25000	0	95.5	82 - 127			

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R412279 (0)		Instrument: VOA10		Method: LOW LEVEL VOLATILES BY SW8260C						
MSD		Sample ID: HS22061693-20MSD		Units: ug/L		Analysis Date: 06-Jul-2022 14:19				
Client ID:		Run ID: VOA10_412279		SeqNo: 6731812		PrepDate:		DF: 500		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	22700	500	10000	14240	84.6	70 - 127	22560	0.657	20	
Ethylbenzene	10550	500	10000	1802	87.5	70 - 124	10100	4.4	20	
Toluene	9166	500	10000	188.7	89.8	70 - 123	8591	6.48	20	
Xylenes, Total	30770	500	30000	1390	97.9	70 - 130	29320	4.85	20	
Surr: 1,2-Dichloroethane-d4	26950	500	25000	0	108	70 - 126	27490	1.98	20	
Surr: 4-Bromofluorobenzene	26060	500	25000	0	104	77 - 113	23960	8.41	20	
Surr: Dibromofluoromethane	27170	500	25000	0	109	77 - 123	27210	0.144	20	
Surr: Toluene-d8	26040	500	25000	0	104	82 - 127	23860	8.73	20	
The following samples were analyzed in this batch:										
HS22061549-01 HS22061549-02										

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: 180763 (0)		Instrument: UV-2450		Method: SULFIDE METHYLENE BLUE BY SM4500 S2- D-2011					
MBLK	Sample ID: MBLK-180763	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071	SeqNo: 6726534		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	U	0.0500							
LCS	Sample ID: LCS-180763	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071	SeqNo: 6726533		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.19	0.0500	0.2	0	95.0	85 - 115			
MS	Sample ID: HS22061396-03MS	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071	SeqNo: 6726531		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.187	0.0500	0.2	0.005	91.0	77 - 124			
MSD	Sample ID: HS22061396-03MSD	Units: mg/L		Analysis Date: 01-Jul-2022 15:53					
Client ID:	Run ID: UV-2450_412071	SeqNo: 6726532		PrepDate: 30-Jun-2022		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Sulfide	0.201	0.0500	0.2	0.005	98.0	77 - 124	0.187	7.22	20
The following samples were analyzed in this batch: HS22061549-02									

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R411793 (0)		Instrument: ICS-Integrion	Method: ANIONS BY E300.0, REV 2.1, 1993						
MBLK	Sample ID: MBLK	Units: mg/L		Analysis Date: 29-Jun-2022 02:31					
Client ID:	Run ID: ICS-Integrion_411793		SeqNo: 6720345	PrepDate:	DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride	U	0.500							
Fluoride	U	0.100							
Nitrogen, Nitrate (As N)	U	0.100							
Nitrogen, Nitrite (As N)	U	0.100							
Nitrate/Nitrite (as N)	U	0.200							
Sulfate	U	0.500							

LCS	Sample ID: LCS	Units: mg/L		Analysis Date: 29-Jun-2022 02:42					
Client ID:	Run ID: ICS-Integrion_411793		SeqNo: 6720346	PrepDate:	DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride	20.13	0.500	20	0	101	90 - 110			
Fluoride	4.192	0.100	4	0	105	90 - 110			
Nitrogen, Nitrate (As N)	3.966	0.100	4	0	99.2	90 - 110			
Nitrogen, Nitrite (As N)	4.325	0.100	4	0	108	90 - 110			
Nitrate/Nitrite (as N)	8.291	0.200	8	0	104	90 - 110			
Sulfate	19.61	0.500	20	0	98.0	90 - 110			

MS	Sample ID: HS22061519-01MS	Units: mg/L		Analysis Date: 29-Jun-2022 02:52					
Client ID:	Run ID: ICS-Integrion_411793		SeqNo: 6720348	PrepDate:	DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Chloride	10.38	0.500	10	0.505	98.7	80 - 120			
Fluoride	1.72	0.100	2	0	86.0	80 - 120			
Nitrogen, Nitrate (As N)	2.404	0.100	2	0.4511	97.7	80 - 120			
Nitrogen, Nitrite (As N)	2.25	0.100	2	0.0189	112	80 - 120			
Nitrate/Nitrite (as N)	4.655	0.200	4	0.4511	105	80 - 120			
Sulfate	10.88	0.500	10	1.123	97.6	80 - 120			

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R411793 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993					
MSD		Sample ID: HS22061519-01MSD		Units: mg/L		Analysis Date: 29-Jun-2022 02:58			
Client ID:		Run ID: ICS-Integrion_411793		SeqNo: 6720349		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	10.35	0.500	10	0.505	98.4	80 - 120	10.38	0.289	20
Fluoride	1.727	0.100	2	0	86.4	80 - 120	1.72	0.429	20
Nitrogen, Nitrate (As N)	2.39	0.100	2	0.4511	96.9	80 - 120	2.404	0.617	20
Nitrogen, Nitrite (As N)	2.248	0.100	2	0.0189	111	80 - 120	2.25	0.116	20
Nitrate/Nitrite (as N)	4.638	0.200	4	0.4511	105	80 - 120	4.655	0.374	20
Sulfate	10.87	0.500	10	1.123	97.4	80 - 120	10.88	0.146	20

The following samples were analyzed in this batch: HS22061549-02

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R412205 (0)		Instrument:		Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011				
MBLK	Sample ID: WBLK-070122	Units: mg/L		Analysis Date: 02-Jul-2022 14:18						
Client ID:	Run ID: Balance1_412205	SeqNo: 6729526		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		U	10.0							
LCS	Sample ID: WLCS-070122	Units: mg/L		Analysis Date: 02-Jul-2022 14:18						
Client ID:	Run ID: Balance1_412205	SeqNo: 6729527		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		1044	10.0	1000	0	104	85 - 115			
DUP	Sample ID: HS22061671-01DUP	Units: mg/L		Analysis Date: 02-Jul-2022 14:18						
Client ID:	Run ID: Balance1_412205	SeqNo: 6729521		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		784	10.0				782	0.255	5	
DUP	Sample ID: HS22061480-01DUP	Units: mg/L		Analysis Date: 02-Jul-2022 14:18						
Client ID:	Run ID: Balance1_412205	SeqNo: 6729507		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)		952	10.0				946	0.632	5	
The following samples were analyzed in this batch:		HS22061549-02								

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.

Project: 11129300 Indian Basin

WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R412262 (0)		Instrument: ManTech01		Method: ALKALINITY BY SM 2320B-2011					
MBLK	Sample ID: WBLKW1-070522	Units: mg/L		Analysis Date: 05-Jul-2022 17:09					
Client ID:	Run ID: ManTech01_412262	SeqNo: 6730933		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00							
Alkalinity, Carbonate (As CaCO3)	U	5.00							
Alkalinity, Hydroxide (As CaCO3)	U	5.00							
Alkalinity, Total (As CaCO3)	U	5.00							

LCS	Sample ID: LCS1-070522	Units: mg/L		Analysis Date: 05-Jul-2022 17:18					
Client ID:	Run ID: ManTech01_412262	SeqNo: 6730934		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Carbonate (As CaCO3)	991.1	5.00	1000	0	99.1	85 - 115			
Alkalinity, Total (As CaCO3)	1015	5.00	1000	0	102	85 - 115			

LCSD	Sample ID: LCSD1-070522	Units: mg/L		Analysis Date: 05-Jul-2022 17:26					
Client ID:	Run ID: ManTech01_412262	SeqNo: 6730935		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Carbonate (As CaCO3)	988.9	5.00	1000	0	98.9	85 - 115	991.1	0.22	20
Alkalinity, Total (As CaCO3)	1010	5.00	1000	0	101	85 - 115	1015	0.494	20

DUP	Sample ID: HS22061411-02DUP	Units: mg/L		Analysis Date: 05-Jul-2022 17:41					
Client ID:	Run ID: ManTech01_412262	SeqNo: 6730937		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Alkalinity, Bicarbonate (As CaCO3)	650.9	5.00					665.9	2.28	20
Alkalinity, Carbonate (As CaCO3)	U	5.00					0	0	20
Alkalinity, Hydroxide (As CaCO3)	U	5.00					0	0	20
Alkalinity, Total (As CaCO3)	650.9	5.00					665.9	2.28	20

The following samples were analyzed in this batch: HS22061549-02

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R412486 (0)		Instrument: WetChem_HS		Method: REACTIVE SULFIDE					
MBLK	Sample ID: MBLK-R412486	Units: mg/L		Analysis Date: 08-Jul-2022 13:00					
Client ID:	Run ID: WetChem_HS_412486		SeqNo: 6736094		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	U	100							

LCS	Sample ID: LCS-R412486	Units: mg/L		Analysis Date: 08-Jul-2022 13:00					
Client ID:	Run ID: WetChem_HS_412486		SeqNo: 6736093		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	70.4	100	100	0	70.4	20 - 120			J

MS	Sample ID: HS22070209-01MS	Units: mg/L		Analysis Date: 08-Jul-2022 13:00					
Client ID:	Run ID: WetChem_HS_412486		SeqNo: 6736104		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	66.4	100	100	0	66.4	20 - 120			J

The following samples were analyzed in this batch: HS22061549-02

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

QC BATCH REPORT

Batch ID: R412533 (0)		Instrument: TOC_04		Method: TOTAL ORGANIC CARBON - SM5310B-2011					
MBLK	Sample ID: MBLK3-07082022	Units: mg/L		Analysis Date: 09-Jul-2022 02:00					
Client ID:	Run ID: TOC_04_412533	SeqNo: 6737331		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total									
	U	1.00							
LCS	Sample ID: LCS3-07082022	Units: mg/L		Analysis Date: 09-Jul-2022 02:14					
Client ID:	Run ID: TOC_04_412533	SeqNo: 6737332		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total									
	9.144	1.00	10	0	91.4	85 - 115			
LCSD	Sample ID: LCSD3-07082022	Units: mg/L		Analysis Date: 09-Jul-2022 02:27					
Client ID:	Run ID: TOC_04_412533	SeqNo: 6737333		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total									
	9.115	1.00	10	0	91.2	85 - 115	9.144	0.318	20
MS	Sample ID: HS22070073-01MS	Units: mg/L		Analysis Date: 09-Jul-2022 05:14					
Client ID:	Run ID: TOC_04_412533	SeqNo: 6737346		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Organic Carbon, Total									
	13.53	1.00	10	4.209	93.2	80 - 120			
The following samples were analyzed in this batch: HS22061549-02									

ALS Houston, US

Date: 11-Jul-22

Client: Glenn Springs Holdings, Inc.
Project: 11129300 Indian Basin
WorkOrder: HS22061549

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
Date	
mg/L	Milligrams per Liter

ALS Houston, US

Date: 11-Jul-22

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-36	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352 2021-2022	31-Jul-2022
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2022	31-Dec-2022
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2021-080	31-Aug-2022
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932021-12	30-Jul-2022

ALS Houston, US

Date: 11-Jul-22

Sample Receipt Checklist

Work Order ID: HS22061549

Date/Time Received: 29-Jun-2022 09:50

Client Name: Glen Springs/CRA

Received by: Corey Grandits

Completed By: /S/ Niles D. Ranchod

29-Jun-2022 10:29

Reviewed by: /S/ Dane J. Wacasey

30-Jun-2022 10:13

eSignature

Date/Time

eSignature

Date/Time

Matrices: **W**Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒No ☐Not Present ☐

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

1 Page(s)

Chain of custody signed when relinquished and received?

Yes ☒No ☐

COC IDs:276021

Samplers name present on COC?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☐No ☒

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

4.3C/4.8C UC/C

IR31

Cooler(s)/Kit(s):

48493

Date/Time sample(s) sent to storage:

6/29 /2022 10:35

Water - VOA vials have zero headspace?

Yes ☒No ☐No VOA vials submitted ☐

Water - pH acceptable upon receipt?

Yes ☒No ☐N/A ☐

pH adjusted?

Yes ☐No ☒N/A ☐

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

Cincinnati, OH
+1 513 733 5336Everett, WA
+1 425 356 2600Fort Collins, CO
+1 970 490 1511Holland, MI
+1 616 399 6070

Chain of Custody Form

HS22061549

WV

Glenn Springs Holdings, Inc.
11129300 Indian Basin

Page ____ of ____

COC ID: 276021



Customer Information		Project Information		ALS Project Manager:	
Purchase Order	4502865846 767-402-D02-3100	Project Name	11129300 Indian Basin		
Work Order		Project Number	11129300		
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.		
Send Report To	Hugh Robotham	Invoice Attn	Accounts Payable		
Address	PO Box 2148	Address	PO Box 2148		
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148		
Phone		Phone			
Fax		Fax			
e-Mail Address	Hugh.Robotham@arcadis.com	e-Mail Address	Chem_GSH@oxy.com		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	11129300-TB-	06/27/22	14:47	Water	1.8	2			X								
2	MW 427	06/27/22	11:14	Groundwa	1,2,3,7,8	17	X	X	X	X	X	X	X	X	X	X	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign

Shipment Method

Required Turnaround Time: (Check Box)

☐ Other

Results Due Date:

Relinquished by:

Date:

Time:

Received by:

☒ STD 10 Wk Days☐ 5 Wk Days☐ 2 Wk Days☐ 24 Hour

Relinquished by:

Date:

Time:

Received by (Laboratory):

Notes:

GSH Indian Basin

Logged by (Laboratory):

Date:

Time:

Checked by (Laboratory):

Cooler ID

Cooler Temp.

QC Package: (Check One Box Below)

☒ Level II Std QC☐ Level III Std QC/Pro Date☐ Level IV SW/MS/CLP☐ Other☐ TRRP Checklist☐ TRRP Level IVPreservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

3. The Chain of Custody is a legal document. All information must be completed accurately.

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5856 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By:
	Date: <u>06/29/22</u>	Time: <u>15:00</u>	
	Name: <u>Shirley B. [illegible]</u>		Date: <u>06/29/22</u>
	Company: <u>ALS</u>		

48493

JUN 28 2022

SHORT
HOLDING
TIME

48493

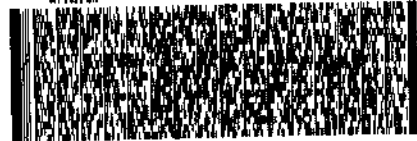
ORIGIN ID: SGRA (432) 897-5400
 CALLUM FERGUSON
 ARCADIS
 1004 NORTH 816 SPRINGS
 SUITE 121
 HOUSTON, TX 78201
 UNITED STATES US

SHIP DATE: 17 JUN 22
 ACTWT: 1.00 LB MAN
 CAD: 0221247/CAFE9512
 DIMS: 25x14x14 IN

TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

(281) 590-5856
 REF: INDIAN BASIN - BO 86083 - DW

RMA: 01181M

FedEx
Express

FedEx
 TRK# 5789 1994 6559
 0221

TUE - 28 JUN 10:30A
 PRIORITY OVERNIGHT

XA SGRA

77099
 TX-US IAL



*450110# 06/27 0512/274P/TECH



LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 07/07/2022

Report # 222063072



Project HS22061549

Samples Collected 6/27/22

Deliver To

Ragen Giga
ALS Houston
10450 Stancliff Rd
Suite 210
Houston, TX 77099
281-530-5656

Additional Recipients

Jumoke Lawal, ALS Houston





Report#: 222063072
Project ID: HS22061549

Report Date: 07/07/2022

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % difference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
 Pace Gulf Coast Report 222063072



Report#: 222063072
Project ID: HS22061549

Report Date: 07/07/2022

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234



Report#: 222063072
Project ID: HS22061549

Report Date: 07/07/2022

Case Narrative

Client: ALS Environmental - Houston, TX **Report:** 222063072

Pace Analytical Gulf Coast received and analyzed the sample(s) listed on the Report Sample Summary page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

No anomalies were found for the analyzed sample(s).



Report#: 222063072
Project ID: HS22061549

Report Date: 07/07/2022

Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22206307201	MW-27	Water	6/27/22 11:14	6/30/22 09:57



Report#: 222063072
Project ID: HS22061549

Report Date: 07/07/2022

Detect Summary

Results and Detection Limits are adjusted for dilution and moisture when applicable

EPA RSK-175						
Lab ID	Client ID	Parameter	Units	Result	Dil.	%Moist
22206307201	MW-27	Carbon Dioxide	ug/L	47800	10	NA



Report#: 222063072
Project ID: HS22061549

Report Date: 07/07/2022

Sample Results

MW-27	Collect Date	06/27/2022 11:14	Lab ID	22206307201
	Receive Date	06/30/2022 09:57	Matrix	Water

EPA RSK-175

*Results and limits are adjusted for dilution.

Prep Date	Prep Batch	Prep Method	Dilution	Run Date	Run Batch	Analyst	%Moisture
NA	NA	NA	10	07/07/22 15:58	744873	BDP	NA

CAS#	Parameter	Result	LOQ	Units
124-38-9	Carbon Dioxide	47800	9000	ug/L



Report#: 222063072
Project ID: HS22061549

Report Date: 07/07/2022

GC Volatiles QC Summary

Analytical Batch 744873		Client ID	MB744873	LCS744873					LCSD744873				
		Lab ID	2368098	2368099					2368100				
		Sample Type	MB	LCS					LCSD				
		Prep Date	NA	NA					NA				
		Analysis Date	07/07/22 14:42	07/07/22 14:27					07/07/22 14:35				
		Matrix	Water	Water					Water				
EPA RSK-175			Units Result	ug/L LOQ	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Carbon Dioxide	124-38-9	ND	900	8700	7090	81	38 - 147	8700	7700	89	8	40	



Subcontract Chain of Custody

10450 Stancilff Rd, Ste 210
Houston, TX 77099
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F: +1 281 530 5887
www.alsglobal.com

SAMPLING STATE: Texas

COC ID: 19079

SUBCONTRACT TO:

Pace Analytical
7979 Innovation Park Drive
Baton Rouge, LA 70820

Phone: +1 225 769 4900

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Stancilff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@alsglobal.com
**Alternate
Contact:** Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

**INVOICE
INFORMATION:**

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancilff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS22061549
TSR: Houston House Acct

LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
ANALYSIS REQUESTED			
1. HS22061549-02	MW-127	Groundwater	27 Jun 2022 11:14
RSK175: CO2; NDL Level II, EQUIS 4-file EDD, 8 day TAT			11 Jul 2022

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: STD (Laboratory Standard QC: method blank and LCS required)

Client ID: ALS Houston - ALS Environmental - Houston, TX
SDG: 222063072
PM: RWE



Relinquished By:
Received By:
Cooler ID(s):

[Signature]
Fedex
Blank Mail
5789 1995 0286

Date/Time:
Date/Time:
Temperature(s):

6/29/2022 1800
6/30/22 9:57
F38 3.1



SAMPLE RECEIVING CHECKLIST



SAMPLE DELIVERY GROUP 222063072			CHECKLIST		YES	NO
Client PM R/ve ALS Houston - ALS Environmental - Houston, TX	Transport Method FEDEX		Samples received with proper thermal preservation?	☒	☐	
			Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☒	☐	
Profile Number 294923	Received By Roberts, George S.		COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☒	☐	
			All containers received in good condition and within hold time?	☒	☐	
Line Item(s) 1 - CO2	Receive Date(s) 06/30/22		All sample labels and containers received match the chain of custody?	☒	☐	
			Preservative added to any containers?	☐	☒	
			If received, was headspace for VOC water containers < 6mm?	☒	☐	
			Samples collected in containers provided by Pace Gulf Coast?	☒	☐	
COOLERS			DISCREPANCIES	LAB PRESERVATIONS		
Airbill	Thermometer ID: E38	Temp °C	None	None		
5789 1995 0286		3.1				
NOTES						

APPENDIX D

Laboratory Data Validation Report



Technical Memorandum

July 28, 2022

To	Hugh Robotham (hugh.robatham@arcadis.com)	Tel	716.205.1990
Copy to	Trudy Rodriquez	Email	trudy.rodriquez@arcadis.com
From	Michelle Kukta/cs/3	Ref. No.	11129300
Subject	Analytical Results and Reduced Validation Annual Groundwater Monitoring Glenn Springs Holdings, Inc. – Indian Basin Indian Basin, New Mexico June 2022		

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 2022. Samples were submitted to ALS Environmental 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 are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and 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.

Most method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation. Low-level concentrations of various metals were detected in some method blanks. All associated sample results were significantly higher than the blank detections and were not considered impacted by the implied contamination.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the method 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. All surrogate recoveries were within the laboratory control limits.

5. Laboratory Control Sample Analyses

LCS 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. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

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 or LCS/LCSD contained all compounds of interest. Most LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision. Positive sample results associated with a high RPD for carbon dioxide have been qualified as estimated, see Table 4.

Inorganic Analyses

The LCS or 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. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

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

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

7. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS samples. For this study, an MS sample was prepared and analyzed internally by the laboratory for reactive sulfide analysis.

The MS result was evaluated per the "Guidelines". The MS analysis performed was acceptable, demonstrating acceptable analytical accuracy.

8. 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 total dissolved solids (TDS). The duplicate results were evaluated per the "Guidelines". One duplicate analysis performed was acceptable, demonstrating acceptable analytical precision. Sample results associated with an outlying RPD were qualified as estimated based on the implied variability, see Table 5.

9. Field QA/QC Samples

The field QA/QC consisted of three trip blank samples.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, three trip blanks were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

10. 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.

11. Conclusion

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

Regards,



Michelle Kukta
Project Chemist

Table 1

Sample Collection and Analysis Summary
Annual Grounwater Monitoring
Glenn Springs Holdings, Inc. - Indian Basin
Indian Basin, New Mexico
June 2022

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Parameters										Comments
					VOC	Dissolved Gases	Metals	Anions	Nitrate/Nitrite	Alkalinity	TDS	TOC	Sulfide	Reactive Sulfide	
MW-45	MW-45	Groundwater	06/23/2022	12:02	X	X	X	X	X	X	X	X	X	X	
MW-49	MW-49	Groundwater	06/23/2022	10:57	X	X	X	X	X	X	X	X	X	X	
MW-66	MW-66	Groundwater	06/24/2022	13:52	X	X	X	X	X	X	X	X	X	X	
MW-70	MW-70	Groundwater	06/24/2022	12:45	X	X	X	X	X	X	X	X	X	X	
MW-88	MW-88	Groundwater	06/23/2022	06:58	X	X	X	X	X	X	X	X	X	X	
MW-106	MW-106	Groundwater	06/24/2022	08:54	X	X	X	X	X	X	X	X	X	X	
MW-111	MW-111	Groundwater	06/24/2022	11:35	X	X	X	X	X	X	X	X	X	X	
MW-127	MW-127	Groundwater	06/27/2022	11:14	X	X	X	X	X	X	X	X	X	X	
11129300-TB-062322	-	Water	06/23/2022	-	X										Trip Blank
11129300-TB-062422	-	Water	06/24/2022	-	X										Trip Blank
11129300-TB-062722	-	Water	06/27/2022	-	X										Trip Blank

Notes:

- VOC - Volatile Organic Compounds
TDS - Total Dissolved Solids
TOC - Total Organic carbon
- - Not applicable

Table 2

Page 1 of 2

Analytical Results Summary
Annual Groundwater Monitoring
Glenn Springs Holdings, Inc. - Indian Basin
Indian Basin, New Mexico
June 2022

Location ID:	MW-45	MW-49	MW-66	MW-70	MW-88	MW-106	MW-111	MW-127
Sample Name:	MW-45	MW-49	MW-66	MW-70	MW-88	MW-106	MW-111	MW-127
Sample Date:	06/23/2022	06/23/2022	06/24/2022	06/24/2022	06/23/2022	06/24/2022	06/24/2022	06/27/2022

Parameters**Unit****Volatile Organic Compounds**

Benzene	µg/L	1.0 U	4.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	0.66 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Dissolved Gases

Carbon dioxide	µg/L	39800 J	141000 J	22700	15800	34100 J	34400 J	27500 J	47800
Methane	µg/L	2.80	1100	1.82	1.02	7.78	1.75	2.83	404

Metals

Calcium	mg/L	544	418	139	76.3	150	106	134	90.1
Iron	mg/L	3.53	8.95	0.0731 J	2.65	1.00	0.583	0.402	0.0419 J
Iron (dissolved)	mg/L	0.0247 J	1.43	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.0289 J
Magnesium	mg/L	514	362	53.6	30.4	70.7	39.6	53.9	37.9
Manganese	mg/L	0.324	0.0721	0.00249 J	0.0223	0.0147	0.0373	0.0263	0.0207
Manganese (dissolved)	mg/L	0.327	0.0684	0.000862 J	0.00125 J	0.0113	0.0176	0.00382 J	0.0204
Potassium	mg/L	4.68	6.21	1.20	1.40	2.44	3.12	1.58	1.16
Sodium	mg/L	443	400	11.7	14.1	26.9	3.81	20.4	18.0

Table 2

Analytical Results Summary
Annual Groundwater Monitoring
Glenn Springs Holdings, Inc. - Indian Basin
Indian Basin, New Mexico
June 2022

Location ID:	MW-45	MW-49	MW-66	MW-70	MW-88	MW-106	MW-111	MW-127
Sample Name:	MW-45	MW-49	MW-66	MW-70	MW-88	MW-106	MW-111	MW-127
Sample Date:	06/23/2022	06/23/2022	06/24/2022	06/24/2022	06/23/2022	06/24/2022	06/24/2022	06/27/2022

Parameters**Unit****General Chemistry**

Alkalinity, bicarbonate	mg/L	581	1240	249	266	302	332	270	344
Alkalinity, carbonate	mg/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Alkalinity, hydroxide	mg/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Alkalinity, total (as CaCO ₃)	mg/L	581	1240	249	266	302	332	270	344
Chloride	mg/L	313	343	8.34	9.84	26.1	3.08	33.9	32.1
Fluoride	mg/L	0.896 J	0.636 J	0.438	0.361	0.640	0.132	0.399	0.627
Nitrate (as N)	mg/L	3.64	0.475 J	0.306	2.89	0.0480 J	3.47	1.47	0.0540 J
Nitrite (as N)	mg/L	1.00 U	1.00 U	0.0780 J	0.127	0.0361 J	0.199	0.100 U	0.122
Nitrite/Nitrate	mg/L	3.64	0.475 J	0.384	3.01	0.0841 J	3.67	1.47	0.176 J
Reactive sulfide	mg/L	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Sulfate	mg/L	3600	1370	358	61.9	421	23.5	215	50.3
Sulfide	mg/L	0.0500 U	35.2	0.113	0.0720	32.8	0.0500 U	0.0500 U	0.367
Total dissolved solids (TDS)	mg/L	6480	4050	836	388	1020	428 J	768 J	528
Total organic carbon (TOC)	mg/L	10.8	18.4	1.00 U	0.524 J	1.98	0.647 J	0.550 J	1.11

Notes:

U - Not detected at the associated reporting limit

J - Estimated concentration

N - Nitrogen

Table 3

Analytical Methods
Annual Groundwater Monitoring
Glenn Springs Holdings, Inc. - Indian Basin
Indian Basin, New Mexico
June 2022

Parameter	Method	Matrix	Holding Time
			Collection to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260C	Groundwater	14
Dissolved Gases	RSK 175	Groundwater	14
Metals	SW-846 6020A	Groundwater	180
Anions	EPA 300.0 ⁽¹⁾	Groundwater	28
Nitrate/Nitrite	EPA 300.0 ⁽¹⁾	Groundwater	48 hours
Alkalinity	SM 2320B	Groundwater	14
Total Dissolved Solids	SM 2540C	Groundwater	7
Total Organic Carbon (TOC)	SM 5310B	Groundwater	28
Total sulfide	SM 4500-S2-D	Groundwater	7
Reactive Sulfide	SW-846 7.3.4.2	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

RSK SOP 175 - EPA Internal Standard Operating Procedure #175 dated 8/11/94 by Bryan Newell
 at the USEPA R.S.Kerr Laboratory.

⁽¹⁾ - "Methods for Chemical Analysis of Water and Waste," EPA-600/4-79-020, revised March 1983,
 with subsequent revisions

Table 4

Qualified Sample Results Due to Outlying LCS/LCSD Results
Annual Groundwater Monitoring
Glenn Springs Holdings, Inc. - Indian Basin
Indian Basin, New Mexico
June 2022

Parameter	Analyte	LCS Date (mm/dd/yyyy)	LCS % Recovery	LCSD % Recovery	RPD (percent)	Control Limits		Associated Sample ID	Qualified Result	Units
						% Recovery	RPD			
Dissolved Gases	Carbon dioxide	07/07/2022	48	73	41	38 - 147	40	MW-88	34100 J	µg/L
								MW-49	141000 J	µg/L
								MW-45	39800 J	µg/L
								MW-106	34400 J	µg/L
								MW-111	27500 J	µg/L

Notes:

LCS - Laboratory Control Sample
 LCSD - Laboratory Control Sample Duplicate
 RPD - Relative Percent Difference
 J - Estimated concentration

Table 5

Qualified Sample Data Due to Outlying Laboratory Duplicate Results
Annual Groundwater Monitoring
Glenn Springs Holdings, Inc. - Indian Basin
Indian Basin, New Mexico
June 2022

Parameter	Sample ID	Analyte	RPD RPD (percent)	RPD Control Limit (percent)	Associated Sample IDs	Qualified Result	Units
General Chemistry	MW-111	Total dissolved solids (TDS)	163	20	MW-106	428 J	mg/L
					MW-111	768 J	mg/L

Notes:

RPD - Relative Percent Difference
J - Estimated concentration

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.

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>

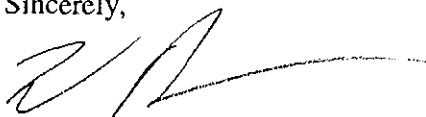


M. Paul Peacock
GW-21
February 20, 2009
Page 2

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.

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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<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 592022

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 592022
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
owen.sitler	2022 Annual Groundwater Monitoring Report submission	6/4/2026