ARCADIS

Chevron Environmental Management Company

2024 Annual Groundwater Monitoring Report

Cooper-Jal Unit South Injection Station

Section 24, Township 24 South, Range 36 East

Lea County, New Mexico

OGRID No. 4323

Incident ID: nAUTOfAB000105

2024 ANNUAL GROUNDWATER MONITORING REPORT

Cooper Jal

Russell Grant
Certified Project Manager

Prepared for:

Armando Martinez
Project Manager
Chevron Environmental Management Company
354 State Highway 38
Questa, New Mexico 87556-0469

Prepared by:

Arcadis U.S., Inc.
1330 Post Oak Blvd., Suite 225
Houston
Texas 77056
Tel 713 953 4800
Fax 713 977 4620
www.arcadis.com

Nadja Cintron Franqui
Task Manager

Our Ref.:

30230083Date:

April 2, 2025

Contents

Tables

Figures

Appendices

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this report for Chevron Environmental Management Company (CEMC), which summarizes semi-annual groundwater monitoring activities conducted in 2024 at the Cooper-Jal Unit South Injection Station (Site). Data presented in this report was collected during semi-annual groundwater monitoring events conducted July 31st through August 1st, 2024, and November 12th through 13th, 2024.

The Site is located on Lea County Road J7, approximately five and a half miles northwest of Jal, New Mexico, in Section 24, Township 24 South, Range 36 East, Lea County, New Mexico in the Bureau of Land Management (BLM). The latitude and longitude coordinates of the Site are 32° 12' 7.13" N and 103° 13' 4.36" W.

Land in the vicinity of the Site is utilized primarily for livestock ranching and oil and gas production and has areas of undeveloped rangeland vegetated with indigenous grass. An injection well facility, operated by Resaca Resources, LLC (Resaca), is located adjacent to the Site. No active Chevron U.S.A. Inc. (Chevron) operations are present in the area. A Site Location Map is presented as **Figure 1**. Additional Site background information is in **Appendix A**.

2 Groundwater Monitoring Results

Groundwater at the Site is monitored semi-annually from a network of 18 monitoring wells and 2 recovery wells. A Site Details Map is presented as **Figure 2**. Arcadis performed semi-annual groundwater sampling events on July 31 through August 2, 2024, and November 12 through13, 2024. During each sampling event, all Site wells are gauged to determine depth to water and depth to non-aqueous phase liquid (LNAPL), if present. Additionally, conductivity readings are collected through the water column at two-foot intervals at each Site well annually, in conjunction with the first semi-annual sampling event. Per the Cooper Jal Reduced Sampling Work Plan submitted to the NMOCD on July 20, 2020, the July 2024 monitoring event consisted of water level measurements and samples collected from all twenty on-Site wells. Additionally, in accordance with the Cooper Jal Reduction Sampling Work Plan, water level measurements were collected at all twenty Site wells and samples were collected from eleven wells during the November 2024 monitoring event. Field monitoring methodologies are in **Appendix B**.

2.1 Groundwater Gauging Data

Groundwater and light non-aqueous phase liquid (LNAPL) measurements collected during the semi-annual monitoring events conducted in 2024 indicate:

- Groundwater elevations ranged from:
  - 3,181.59 feet above mean sea level (ft AMSL) (MW-11) to 3,190.65 ft AMSL (MW-12) during the July 2024 event, and
  - 3,181.71 ft AMSL (MW-11) to 3,190.74 ft AMSL (MW-12) during the November 2024 event.
- The groundwater elevations during both semi-annual sampling events in 2024 were consistent with historical levels, with groundwater flow generally to the southeast.
- Potentiometric elevation data for the sampling events are presented in **Table 1**. Groundwater potentiometric surface maps for July 2024 and November 2024 are presented on **Figure 3**.
- The calculated gradient was 0.0026 feet/foot (ft/ft) for both July and November 2024 gauging events.

- LNAPL was not detected in any Site wells during either the July 2024 or the November 2024 monitoring events.

2.2 Groundwater Analytical Results

All 20 wells were sampled at the Site during the July-August 2024 sampling event. The November 2024 groundwater monitoring event was reduced to sampling 11 of 20 Site wells, as detailed in the Cooper Jal Sample Reduction Work Plan submitted to the NMOCD on July 20, 2020, presented in **Table 2**. On February 13, 2023, the proposed reduction plan was approved with an additional request to collect samples for sulfate analysis from two Site wells (MW-4A and RW-2R). The sulfate sample collection is scheduled annually in conjunction with the first semi-annual sampling event. Samples were sent to Pace analytical to be analyzed for:

- Chloride by EPA method 300.0,
- Sulfate by EPA method 300.0 and,
- Total Dissolved Solids by EPA 2540C-2011.

Groundwater analytical results for chloride, total dissolved solids (TDS), and sulfate were compared to the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards. A summary of the groundwater sample analytical results is presented in **Table 3**.

Cumulative summary tables of groundwater analytical results and potentiometric elevation data obtained for the Site from 1998 through 2024 are presented in **Appendices C** and **D**, respectively. Copies of the certified analytical reports and chain-of-custody documentation from Pace Laboratories are provided in **Appendix E**.

Isoconcentration maps for chloride for the July-August 2024 and November 2024 sampling events are presented on **Figure 4**. The isoconcentration maps for TDS for the July -August 2024 and November 2024 sampling events are presented on **Figure 5**. The isoconentration map for sulfate for the July-August 2024 sampling event is presented on **Figure 6**. The groundwater analytical results are further summarized below.

2.2.1 Chloride

- Chloride concentrations detected during the July-August 2024 groundwater sampling event exceeded the NMWQCC standard of 250 milligrams per liter (mg/L) in 12 of the 20 wells sampled (MW-1, MW-4, MW-4A, MW-5, MW-7, MW-9, MW-9A, MW-10, MW-12, RW-1, RW-2, and RW-2R).

  Chloride concentrations exceeding the NMWQCC standard of 250 mg/L ranged from 344 mg/L at monitoring well MW-10 to 10,800 mg/L at monitoring well MW-4.
- Chloride concentrations detected during the November 2024 groundwater sampling event exceeded the NMWQCC standard of 250 mg/L in 10 of the 11 wells sampled (MW-1, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R).

  Chloride concentrations exceeding the NMWQCC standard of 250 mg/L ranged from 336 mg/L at monitoring well MW-10 to 13,400 mg/L at monitoring well MW-4.

2.2.2 TDS

- TDS concentrations detected during the July-August 2024 groundwater sampling event exceeded the NMWQCC standard of 1,000 mg/L in 12 of the 20 wells sampled (MW-1, MW-4, MW-4A, MW-5, MW-7, MW-9, MW-9A, MW-10, MW-12, RW-1, RW-2, and RW-2R).

TDS concentrations exceeding the NMWQCC standard of 1,000 mg/L ranged from 1,030 mg/L (MW-9A) to 26,500 mg/L (MW-4).

- TDS concentrations detected during the November 2024 groundwater sampling event exceeded the NMWQCC standard of 1,000 mg/L in 10 of the 11 wells sampled (MW-1, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R).

TDS concentrations exceeding the NMWQCC standard of 1,000 ranged from 1,090 mg/L (MW-10) to 22,900 mg/L (MW-4).

2.2.3 Sulfate

- Sulfate concentrations were analyzed in 2 wells (MW-4A and RW-2R) out of the 20 wells during the July-August 2024 groundwater sampling event. Sulfate concentrations detected during the July-August 2024 groundwater sampling event exceeded the NMWQCC standard of 600 mg/L in 1 of the 2 wells sampled (RW-2R).
- Sulfate concentrations at all the other site wells on Site are not being actively monitored due to the NMOCD approval of a reduced Sampling Analysis Plan, due to historical analytical data, on a letter dated February 13, 2023.

The sulfate concentration exceeding the NMWQCC standard of 600 mg/L was 845 mg/L for the recovery well RW-2R. Sulfate concentrations were not analyzed during the November 2024 groundwater sampling event in accordance with the approved Sampling Analysis Plan.

3 Summary

In summary, the semi-annual monitoring activities conducted at the Site in July-August 2024 and November 2024 indicate the following:

- All 20 Site wells were gauged during the July-August 2024 and November 2024 events;
- Groundwater elevations at the Site have remained consistent over the last 10 years;
- All 20 Site wells were sampled during the July-August 2024 event, and 11 Site wells were sampled during the November 2024 event;
- Potentiometric surface conditions were consistent with historical results showing groundwater flow to the southeast towards monitoring well MW-11.

Groundwater sample analytical results reported for the July-August 2024 and November 2024 sampling events indicate:

- Chloride exceeded the NMWQCC standard in 12 Site wells sampled during the July-August 2024 event (MW-1, MW-4, MW-4A, MW-5, MW-7, MW-9, MW-9A, MW-10, MW-12, RW-1, RW-2, and RW-2R), and 10 Site wells sampled during the November 2024 event (MW-1, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R).
- The highest chloride concentrations were detected at wells MW-4 and RW-2R, located at the center of the site, during both July and November 2024 sampling events.
- TDS exceeded the NMWQCC standard of 1,000 mg/L in 12 Site wells sampled during the July 2024 event (MW-1, MW-4, MW-4A, MW-5, MW-7, MW-9, MW-9A, MW-10, MW-12, RW-1, RW-2, and RW-2R),

and 10 Site wells sampled during the November 2024 event (MW-1, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R).

- The highest TDS concentrations were detected at wells MW-4 and RW-2R, located at the center of the site.
- Sulfate concentrations exceeded the NMWQCC standard at one of the two wells sampled during the July 2024 event (RW-2R).

Chloride Historical data suggest the following:

- Monitoring wells MW-1 and MW-5 have historical decreasing chloride concentration trends, with concentrations consistently above the chloride NMWQCC standard of 250 mg/L. However, since 2021, chloride concentrations at MW-1 have stabilized, ranging from 598 mg/L to 960 mg/L.
- Monitoring wells MW-2, MW-2A, MW-3, MW-6R, and MW-5A have consistent stable concentration trends below the chloride NMWQCC standard of 250 mg/L.
- MW-12 is the furthest upgradient well onsite, located to the northwest. Prior to 2018, chloride concentrations at MW-12 were generally below the chloride NMWQCC standard of 250 mg/L, with the exception of November 2007 and October 2016, when concentrations slightly exceeded the standard. Due to this historical trend and it's upgradient position to the site chloride plume, MW-12 has historically been considered a background well for chloride impact at the site. However, since October 2018, chloride concentrations have exceeded the NMWQCC standard and have consistently increased since, with only one instance of chloride concentrations decreasing below the chloride NMWQCC standard of 250 mg/L in April 2020. Since 2022, this increasing trend appears to have stabilized, with chloride concentrations ranging from 404 mg/L to 504 mg/L. MW-3, MW-2A, and MW-6R are downgradient from MW-12. These wells have consistently shown stable chloride concentrations below NMWQCC standard of 250 mg/L and act as the delineation wells along the northern edge of the impacted groundwater. As a result of this, the increasing chloride concentrations at MW-12 are believed to be a result of chloride impact from an upgradient source, not associated with the Site's release.
- MW-8, MW-14, and MW-11 are located in the southwest, east, and southeast portion of the site respectively, and have consistent stable concentration trends below the chloride standard of 250 mg/L, which support the southern delineation of the site chloride plume.
- Monitoring well MW-4 and recovery well RW-2R are centrally located and have the greatest concentration of chloride onsite. Chloride concentrations in these two well have remained relatively stable since 2020. Monitoring well MW-4 has chloride concentrations ranging from 8,700 mg/L to 13,700 mg/L and recovery well RW-2 has chloride concentrations ranging from 7,250 mg/L to 8,300 mg/L.
- Downgradient monitoring wells MW-7 and MW-9 are located in the south central area of the site, down gradient from MW-4 and RW-2R. Chloride concentrations at MW-7 have been relatively stable since 2022 with concentrations ranging from 5,080 mg/L to 5,350 mg/L. Chloride concentrations at MW-9 have also been relatively stable since 2020 with concentrations ranging from 1,010 mg/L to 1,100 mg/L. Higher chloride concentrations at MW-7 compared to MW-9 could be explained to its upgradient/ closer proximity to RW-2R and MW-4.
- Anomalies detailed below were identified in some of the Site wells that are not representative of the historical trends on Site:
    - Chloride concentrations at wells MW-4, MW-5, and RW-2 during the August 2022 sampling event were reported below the NMWQCC groundwater standard of 250 mg/L. Historical data for MW-4, MW-5, and RW-2 have consistently exceeded the NMWQCC groundwater standard of 250 mg/L.

However, analytical data collected from December 2022 through December 2024 at these wells align with the observed historical trends observed with chloride concentrations exceeding the NMWQCC standard of 250 mg/L.

- Well MW-5A has historically not exceeded NMWQCC groundwater standard of 250 mg/L, however during the August 2022 sampling event, analytical data indicated a chloride exceedance increase of 15,000 mg/L. Analytical data collected at MW-5A from July 2023 to August 2024 align with the observed historical trends being below the chloride NMWQCC standard of 250 mg/L.

Historical chloride analytical data from upgradient wells (MW-1, MW-2, MW-2A, MW-3, MW-4, MW-4A, MW-5, MW-5A, MW-6R, and RW-1) exhibit generally stable chloride concentration trends and do not indicate influence of increased concentrations over time. Historical chloride analytical data and the chloride concentration trend at MW-12 exhibit increasing chloride concentrations over time, surpassing the NMWQCC standard in recent years. MW-12 concentration trends combined with the consistent southeast groundwater flow at the site could be indicative of an existing off-site chloride plume upgradient of MW-12 that may be migrating towards the Site.

Historical TDS data suggest the following:

- Monitoring wells MW-1 and MW-5 have demonstrated historical decreasing TDS concentration trends. However, since 2021 analytical data has begun to stabilize, with TDS concentrations exceeding the TDS NMWQCC standard of 1,000 mg/L ranging from 1,240 mg/L to 2,290 mg/L at MW-1 and from 2,230 mg/L to 2,630 mg/L at MW-5.
- Upgradient wells MW-2, MW-2A, MW-3, MW-6R, MW-5 have consistently shown stable concentration trends below the TDS standard of 1,000 mg/L.
- Upgradient well MW-12 has a historically increasing TDS concentration trend. TDS concentrations at MW-12 have generally been below the NMWQCC TDS standard of 1,000 mg/L since 2002, with one exceedance occurring in November 2007. Due to this historical concentration trend and it's upgradient position to the onsite plume, MW-12 has been considered a background well at the site. However, on December 2021 TDS concentrations exceeded the NMWQCC TDS standard of 1,000 mg/L and have consistently increased since then, supporting the suggestion of potential influence from an upgradient off-site source. MW-3, MW-2A, and MW-6R are downgradient from MW-12. These wells have consistently shown stable TDS concentrations below the NMWQCC standard of 1,000 mg/L and act as the delineation wells along the northern edge of the Site's groundwater plume. As a result of this, the increasing TDS concentrations at MW-12 are believed to be a result of impact from an upgradient source, not associated with the Site's release.
- MW-8, MW-14, and MW-11 are located in the southwest, east, and southeast portion of the site respectively, and have consistent stable concentration trends below the TDS standard of 1,000 mg/L, which support the southern delineation of the site TDS plume.
- Downgradient monitoring wells MW-7, MW-9, and MW-9A are located in the south central area of the site, down gradient from MW-4 and RW-2R.These wells have a historically increasing TDS concentration trends above the TDS standard of 1,000 mg/L. Higher TDS concentrations at MW-7 compared to MW-9 and MW-9A could be explained by its upgradient/ closer proximity to RW-2R and MW-4.
- Monitoring well MW-4 and recovery well RW-2R are centrally located on site and have consistently had TDS concentrations greater than any other well at the site. Monitoring well MW-4 has TDS concentrations ranging from 16,400 mg/L to 28,900 mg/L and recovery well RW-2 has TDS concentrations ranging from 13,500 mg/L to 21,500 mg/L since 2020.

Historical TDS analytical data from upgradient wells (MW-1, MW-2, MW-2A, MW-3, MW-4, MW-4A, MW-5, MW-5A, MW-6R, and RW-1) exhibit generally stable TDS concentration trends and do not indicate influence of increased concentrations over time. Historical TDS analytical data and the TDS concentration trend at MW-12 exhibits increasing TDS concentrations over time, surpassing the NMWQCC standard in recent years. MW-12 concentration trends combined with the consistent southeast groundwater flow at the site could be indicative of an existing off-site plume upgradient of MW-12 that may be migrating towards the Site. Additionally, the increasing TDS trends observed in the downgradient wells (MW-7, MW-9, and MW-9A) could also indicate the migration of TDS from upgradient wells (RW-1, MW-4A, RW-2, and RW-2R) on site towards MW-11.

Historical sulfate data suggest the following:

- Monitoring well MW-4A has a decreasing sulfate concentration trend with concentrations consistently below the NMWQCC standard of 600 mg/L. Analytical data from 2016 to 2024 indicate a stable concentration trend ranging from 91.7 mg/L to 101 mg/L.
- Monitoring well RW-2R has a relatively stable sulfate concentration trend with concentrations consistently above the NMWQCC standard of 600 mg/L.

Historical sulfate analytical data and concentration trends from monitoring wells MW-4A and RW-2R indicate a generally stable sulfate plume at the Site, concentrated at recovery well RW-2R.

4 Recommendations

Arcadis recommends the continuation of semi-annual groundwater monitoring and sampling on-Site in 2025, following the 2023 SAP that was approved by NMCOD in a letter dated February 13, 2023.

On March 25, 2024, Chevron submitted the *2023 Stage 1 & 2 Abatement Plan* to the NMOCD to document the on-going groundwater assessment activities and proposing a path to groundwater remediation and eventual site closure. On a letter dated September 27, 2024, the NMOCD approved the 2023 Stage 1 & 2 Abatement Plan under the condition of completion of public notification and to provide an update of the ancillary remediation system and construction designs within six months of the approval letter. On October 4, 2024, Arcadis completed the Public Notification requirements and submitted proof of public notice distribution to the NMOCD on a letter dated October 8, 2024. The proof of public notice for Cooper Jal Site was accepted by the NMOCD on October 15, 2024. As part of the 2024 Annual Groundwater Monitoring Report, Arcadis has included the Groundwater Recovery System 30 Percent Basis of Design (**Appendix F**) as requested by the NMOCD on the abatement plan approval letter dated September 27, 2024.

Tables

Figures

Appendix A

Site Background

Appendix B

Field Methodology and Documentation

Appendix C

Cumulative Summary of Groundwater Analytical Results

Appendix D

Cumulative Summary of Groundwater Potentiometric Elevation Data

Appendix E

Analytical Reports

Arcadis U.S., Inc.
1004 North Big Spring Street, Suite 121
Midland
Texas 79701
Phone: 432 687 5400
Fax: 432 687 5401
www.arcadis.com

Tables

Appendix A

Site Background

Appendix B

Field Methodology and Documentation

Appendix C

Cumulative Summary of Groundwater Analytical Results

Appendix D

Cumulative Summary of Groundwater Potentiometric Elevation Data

Appendix E

Analytical Reports

Arcadis U.S., Inc.
1004 North Big Spring Street, Suite 121
Midland
Texas 79701
Phone: 432 687 5400
Fax: 432 687 5401
www.arcadis.com

Table 1
2024 Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID	TOC Elevation	Well Diameter (in)	Well Screen Interval (ft bgs[2])	Collection Date	Total Depth (ft below TOC)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft)
MW-1	*3321.94*	**2**	153-173	07/30/24	169.58	134.41	3187.53
				11/12/24	169.59	134.36	3187.58
MW-2	*3321.27*	**2**	163-173	07/30/24	168.98	134.12	3187.15
				11/12/24	168.97	134.05	3187.22
MW-2A	*3321.30*	**2**	130-145	07/30/24	142.19	134.18	3187.12
				11/12/24	142.18	134.13	3187.17
MW-3	*3320.08*	**2**	161-171	07/31/24	172.27	132.06	3188.02
				11/12/24	172.29	131.96	3188.12
MW-4	*3321.58*	**2**	161-171	07/30/24	171.77	135.15	3186.43
				11/12/24	171.79	135.03	3186.55
MW-4A	*3321.42*	**2**	128-143	07/30/24	145.98	134.97	3186.45
				11/12/24	145.97	134.93	3186.49
MW-5	*3322.98*	**2**	161-171	07/30/24	174.16	136.45	3186.53
				11/12/24	174.17	136.39	3186.59
MW-5A	*3321.07*	**2**	126-141	07/30/24	144.22	136.53	3184.54
				11/12/24	144.22	136.45	3184.62
MW-6R	*3323.04*	**4**	136-176	07/30/24	177.55	135.48	3187.56
				11/12/24	177.55	135.94	3187.10
MW-7	*3320.19*	**2**	151-166	07/30/24	163.88	135.39	3184.80
				11/12/24	163.92	135.33	3184.86
MW-8	*3319.06*	**2**	155-170	07/30/24	146.76	133.60	3185.46
				11/12/24	146.81	133.61	3185.45
MW-9	*3314.68*	**2**	149-164	07/31/24	161.71	131.83	3182.85
				11/12/24	161.74	131.71	3182.97
MW-9A	*3314.48*	**2**	127-142	07/31/24	142.41	131.58	3182.90
				11/12/24	142.45	131.50	3182.98
MW-10	*3321.12*	**2**	151-166	07/30/24	160.98	136.18	3184.94
				11/12/24	160.98	136.18	3184.94
MW-11	*3311.56*	**4**	125-140	07/31/24	165.48	129.97	3181.59
				11/12/24	165.50	129.85	3181.71
MW-12*	*3330.33*	**4**	157-172	07/31/24	171.34	139.68	3190.65
				11/12/24	171.35	139.59	3190.74
MW-14	*3318.36*	**4**	131-171	07/30/24	174.62	134.22	3184.14
				11/12/24	174.33	134.23	3184.13
RW-1	*3320.31*	**5**	130-174	07/30/24	163.88	133.61	3186.70
				11/12/24	163.90	133.58	3186.73
RW-2	*3320.42*	**5**	134-173	07/30/24	157.46	135.04	3185.38
				11/12/24	157.48	135.08	3185.34
RW-2R	*3320.68*	**6**	133-173	07/30/24	180.36	136.73	3183.95
				11/12/24	180.37	136.70	3183.98

Notes:
1. A - Indicates groundwater monitor well installed in shallow Uppermost Groundwater Bearing Unit.
2. ft bgs - feet below ground surface
3. in - inches
4. TOC - Top of Casing
5. * - Indicates groundwater monitor well installed off-site and upgradient of plume.
6. -- - Not Available/ Not Applicable

Table 2
2024 Groundwater Sampling and Analysis Plan
Cooper Jal Unit South Injection Station
Lea County, NM

First Semi-Annual Monitoring Event						Second Semi-Annual Monitoring Event					
Monitoring Well ID	Gauge Depth to Groundwater and Total Depth	Collect Conductivity Level every two (2) feet	Total Dissolved Solids by State Method 2540C	Inorganic Anions by USEPA Method 300		Gauge Depth to Groundwater and Total Depth	Collect Conductivity Level every two (2) feet	Total Dissolved Solids by State Method 2540C	Inorganic Anions by USEPA Method 300		Rationale for Reduction
				Chloride	Sulfate				Chloride	Sulfate	
MW-1	X	X	X	X	--	X	--	X	X	--	
MW-2	X	X	X	X	--	X	--	X	X	--	
MW-2A	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-3	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-4	X	X	X	X	--	X	--	X	X	--	
MW-4A	X	X	X	X	X	X	--	--	--	--	Stable Trend
MW-5	X	X	X	X	--	X	--	X	X	--	
MW-5A	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-6R	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-7	X	X	X	X	--	X	--	X	X	--	
MW-8	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-9	X	X	X	X	--	X	--	X	X	--	
MW-9A	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-10	X	X	X	X	--	X	--	X	X	--	
MW-11	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-12	X	X	X	X	--	X	--	X	X	--	
MW-14	X	X	X	X	--	X	--	--	--	--	Stable Trend
RW-1	X	X	X	X	--	X	--	X	X	--	
RW-2	X	X	X	X	--	X	--	X	X	--	
RW-2R	X	X	X	X	X	X	--	X	X	--	

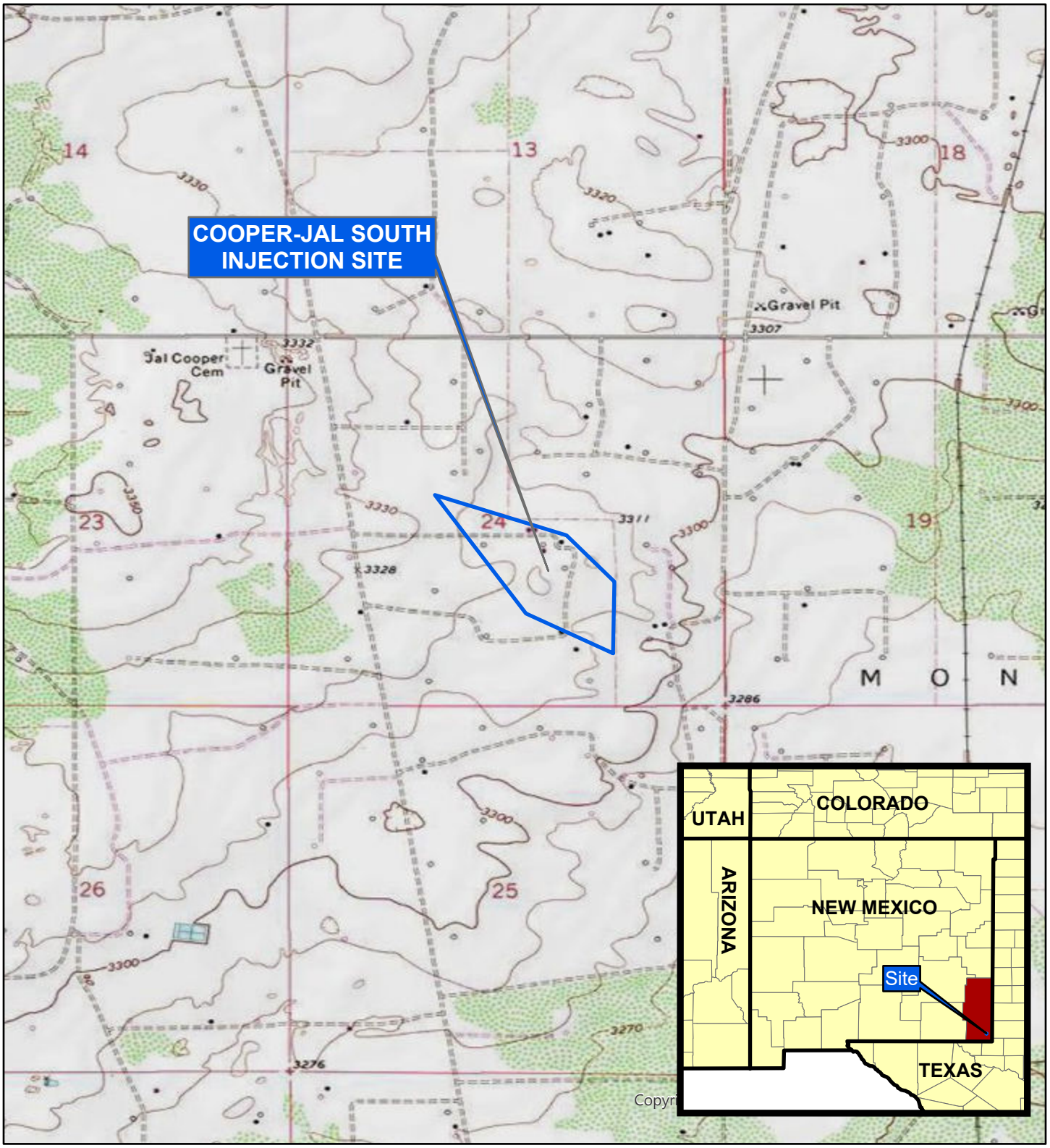
Notes:
USEPA = United States Environmental Protection Agency
X = Data will be collected at monitoring well during respective event.
-- = Data will not be collected at monitoring well during semi-annual event

Table 3
2024 Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Chloride	TDS	Sulfate
NMWQCC Groundwater Standard (mg/L)		**250**	**1,000**	**600**
MW-1	8/1/2024	***598***	***1,640***	NA
	11/12/2024	***768***	***2,290***	NA
MW-2	8/1/2024	116 J6	672	NA
	11/12/2024	152	596	NA
MW-2A	8/1/2024	107 J6	522	NA
	11/12/2024	--	--	--
MW-3	8/2/2024	33.5	422	NA
	11/12/2024	--	--	--
MW-4	8/1/2024	***10,800***	***26,500***	NA
	11/12/2024	***13,400***	***22,900***	NA
MW-4A	7/31/2024	***422***	***1,200***	91.7
	11/12/2024	--	--	--
MW-5	8/1/2024	***941***	***2,260***	NA
	11/12/2024	***921***	***2,310***	NA
MW-5A	8/1/2024	161	609	NA
	11/12/2024	--	--	--
MW-6R	8/1/2024	76.9	480	NA
	11/12/2024	--	--	--
MW-7	8/1/2024	***5,080***	***14,800***	NA
	11/13/2024	***5,500***	***15,500***	NA
MW-8	8/2/2024	34.9	419	NA
	11/12/2024	--	--	--
MW-9	8/1/2024	***1,010***	***3,060***	NA
	11/13/2024	***1,040***	***3,300***	NA
MW-9A	8/1/2024	***737***	***1,030***	NA
	11/13/2024	--	--	--
MW-10	8/1/2024	***344***	***1,180***	NA
	11/13/2024	***336***	***1,090***	NA
MW-11	8/2/2024	35.1	417	NA
	11/12/2024	--	--	--
MW-12*	8/2/2024	***404***	***1,600***	NA
	11/12/2024	***504***	***1,560***	NA
MW-14	7/31/2024	61.4	473	NA
	11/12/2024	--	--	--
RW-1	7/31/2024	***1,540***	***13,900***	NA
	11/12/2024	***2,220***	***4,280***	NA
RW-1 Dup	7/31/2024	***1,680***	***9,820***	NA
	11/12/2024	***5,890***	***6,980***	NA
RW-2	7/31/2024	***533***	***3,510***	NA
	11/13/2024	***747***	***1,370***	NA
RW-2R	7/31/2024	***7,590***	***20,100***	***845***
	11/13/2024	***8,080***	***18,600***	NA
RW-2R Dup	7/31/2024	***8,010***	***18,400***	***881***

Notes:

1. Bold and italiced cells indicate New Mexico Water Quality Control Commission (NMWQCC) standard exceedance.
2. NA- Not Analysed
3. Results shown in milligrams/liter (mg/L).
4. * - Indicates groundwater monitor well installed off-site and upgradient of plume.
5. TDS - Total Dissolved Solids
6. J6- The sample matrix interfered with the ability to make any accurate determination; spike value is low.
7. -- Not Available
8. Monitoring wells MW-2A, MW-3, MW-4A, MW-5A, MW-6R, MW-8, MW-9A, MW-11, and MW-14 were excluded from sampling during the 2SA24 sampling event as they were not part of the 2024 SAP due to stable trends.



Legend

Site Boundary

Notes:
1. Datum: D_WGS_1984
2. Source: United States Geological Survey 7.5 Minute Quadrangle Map
3. Site Location: 32.19891, -103.21523

N

0 1,000 2,000 4,000 Feet

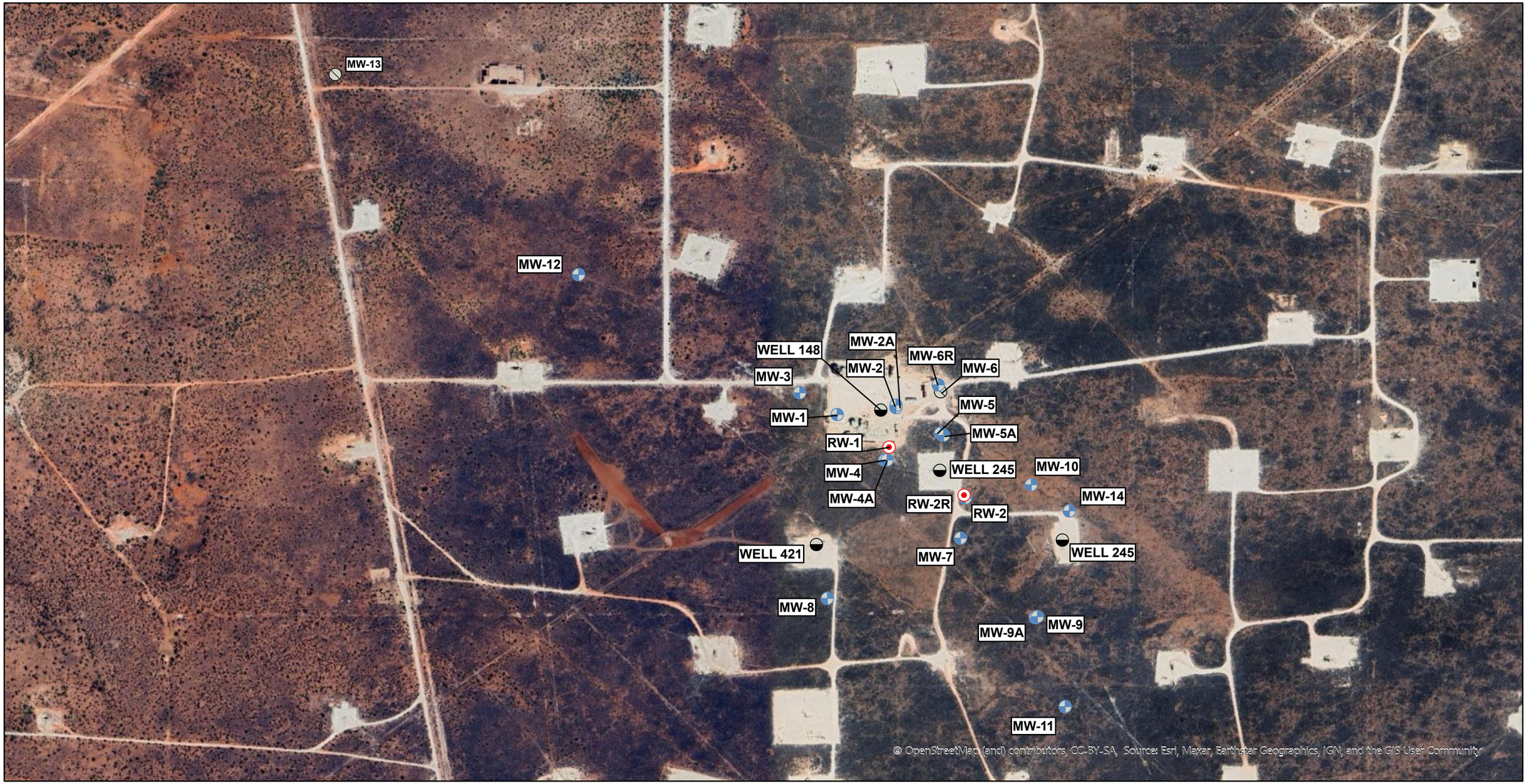
Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

SITE LOCATION MAP

ARCADIS

FIGURE 1

Document Path: T:_ENV\Upstream\Cooper_Jal\PRO\Cooper Jal Annual Report.aprx, User Name: avi00976



Legend

- Monitoring Well Location
- Recovery Well
- Cooper Jal Oil Well
- Plugged & Abandoned Monitoring Well

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not gauged.
3. Site Location: 32.19891, -103.21523
4. MW-12 & MW-13 were installed off-site and upgradient of plume.

N

0 250 500 1,000 Feet

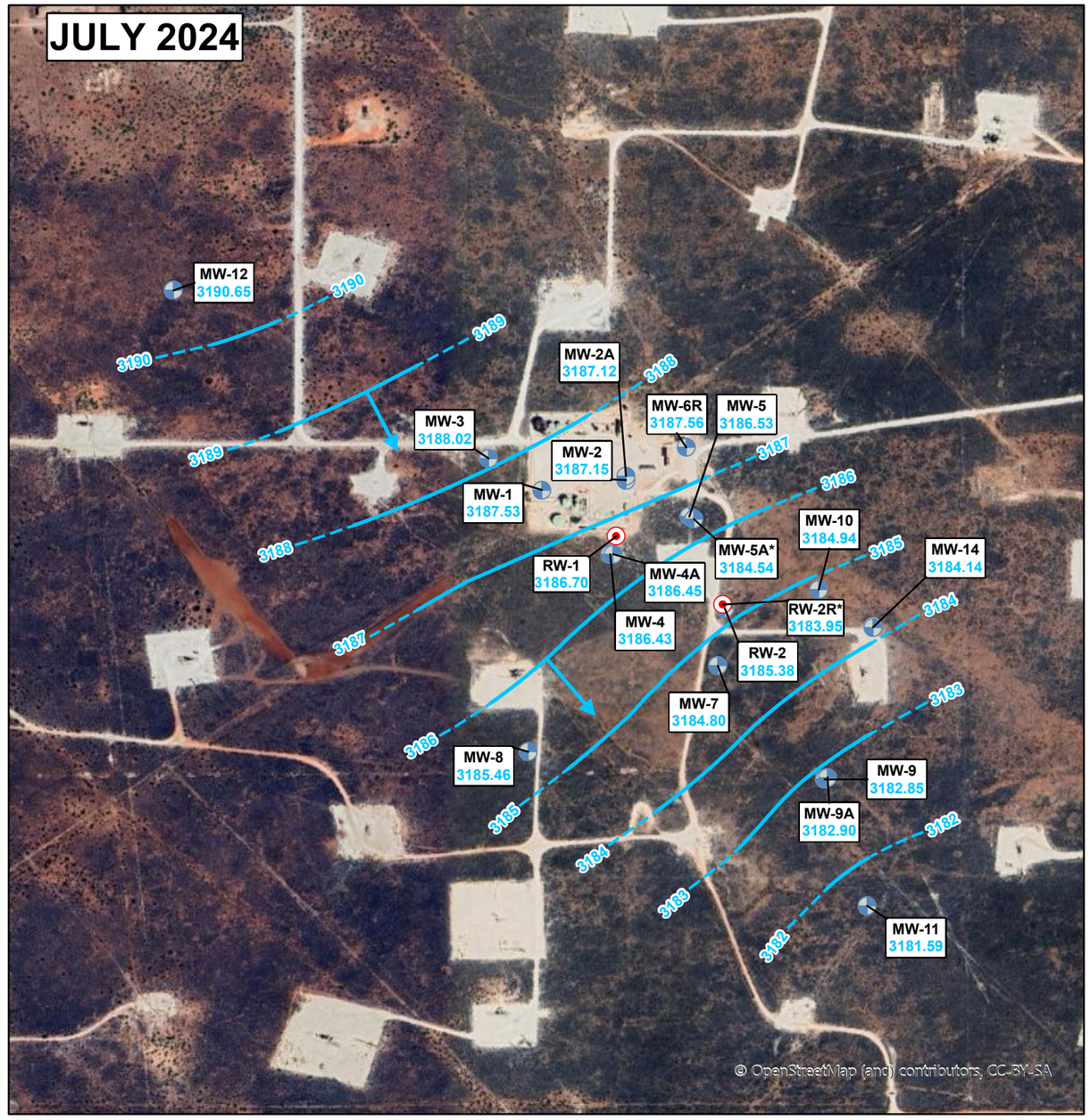
Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

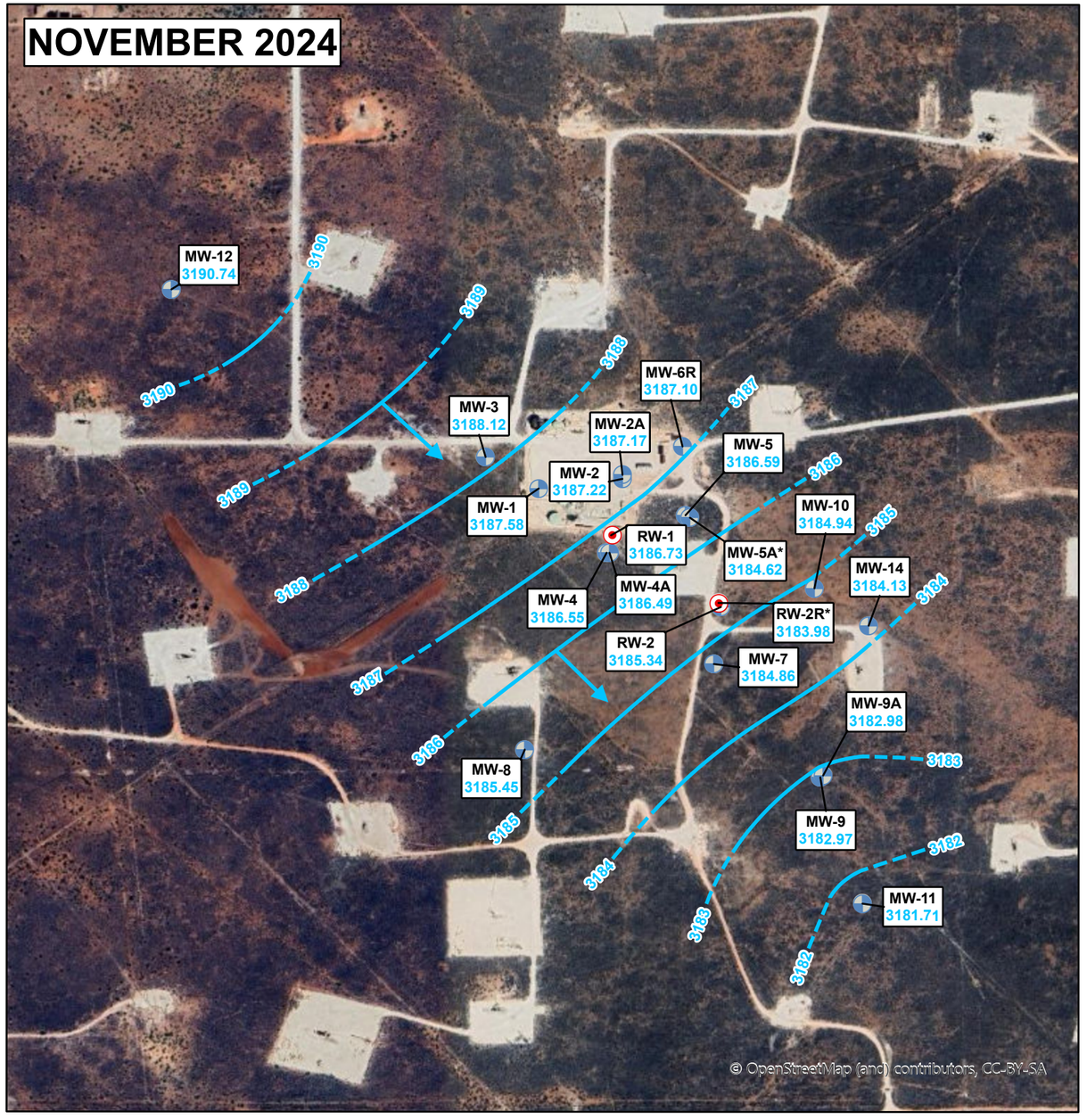
SITE DETAILS MAP

ARCADIS

FIGURE
2

Document Path: T:_ENV\Upstream\Cooper_Jal\PRO\Cooper Jal Annual Report.aprx, User Name: avi00976





Legend

- Monitoring Well Location
- Recovery Well
- Potentiometric Contour and Elevation (Dashed where Inferred)
- 3181.59 — Groundwater Elevation (ft above mean sea level)
- Approximate Groundwater Flow

Notes:
1. Datum: D_WGS_1984
2. Cooper-Jal Oil Wells were not gauged.
3. Site Location: 32.19891, -103.21523
4. MW-12 was installed off-site and upgradient of plume.
5. * - Groundwater elevation not used for contouring

N

0 250 500 1,000 Feet

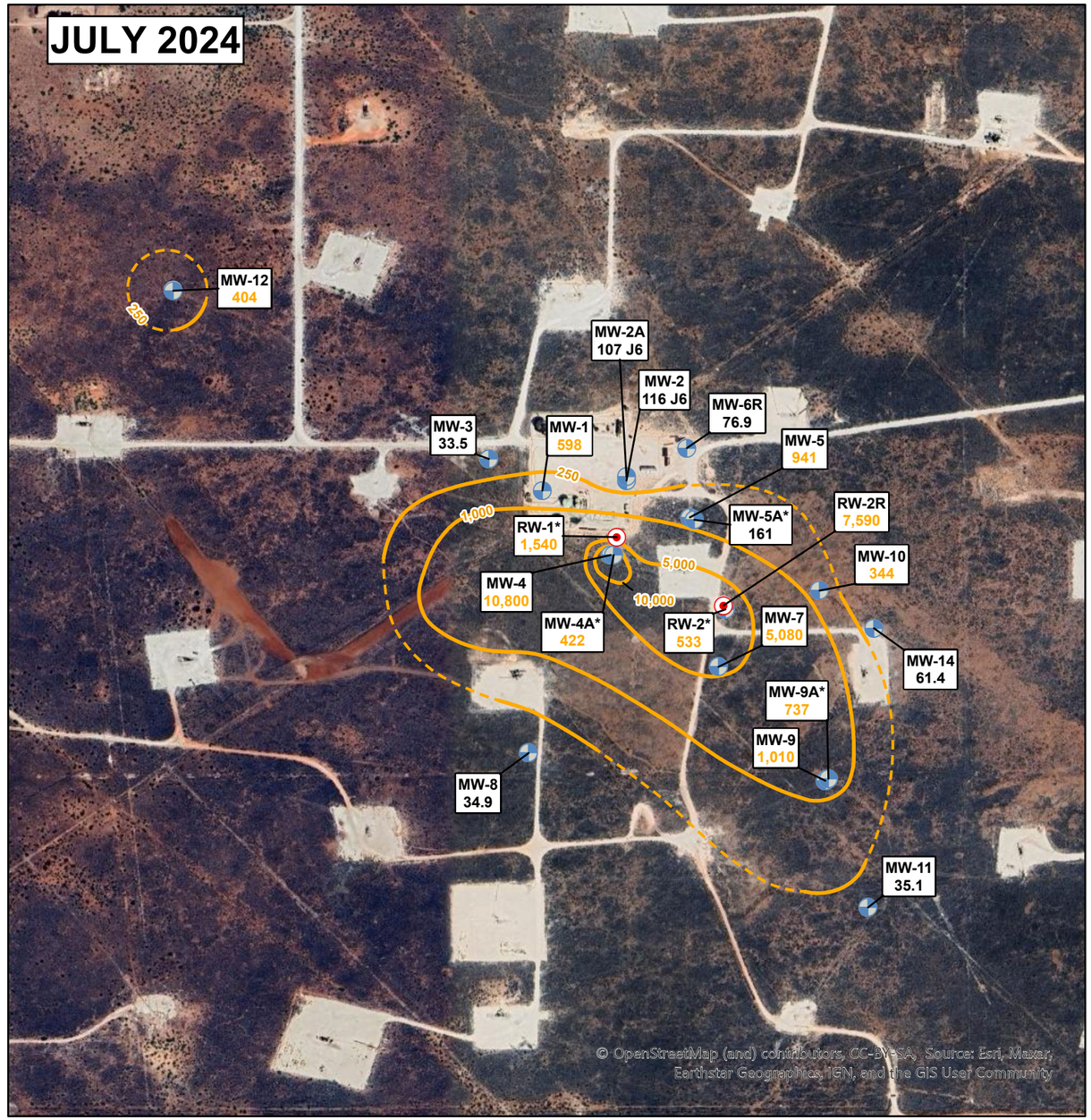
Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

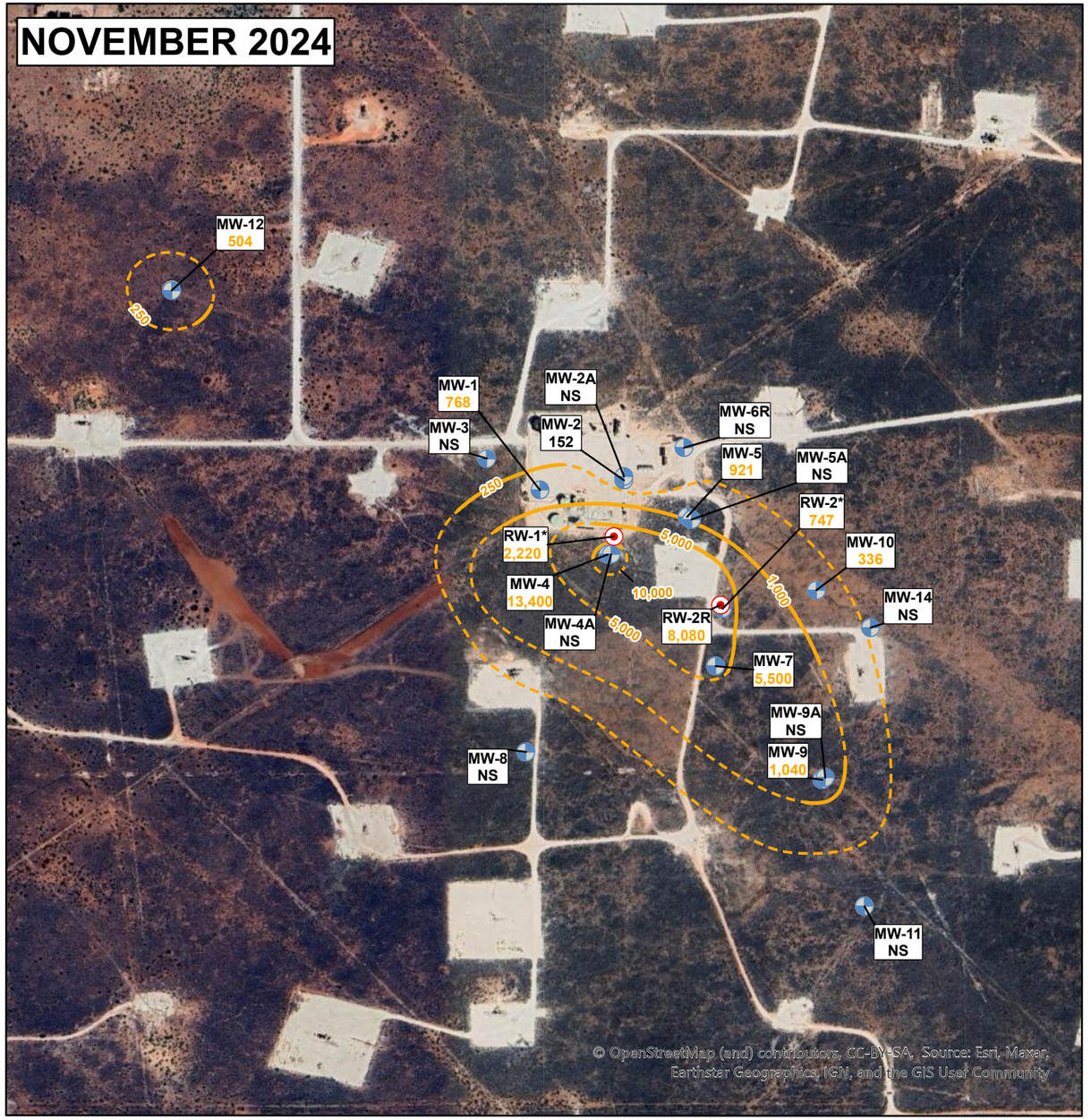
POTENTIOMETRIC SURFACE MAPS 2024

ARCADIS

FIGURE 3

Document Path: T:_ENV\Upstream\Cooper_Jal\PRO\Cooper Jal Annual Report.aprx, User Name: avi00976





Legend

- Monitoring Well Location
- Recovery Well
- 250 — Chloride Isoconcentration Contour (Dashed where Inferred)
- 161 — Chloride Concentration in milligrams per liter (mg/L)
- 422 — Chloride Concentration (mg/L) Exceeds New Mexico Water Quality Control Commission Other Standards for Domestic Water Supply

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not gauged.
3. Site Location: 32.19891, -103.21523
4. MW-12 was installed off-site and upgradient of plume.
5. J6- The sample matrix interfered with the ability to make any accurate determination; spike value is low.
6. NMWQCC Groundwater Standard (mg/L)
7. * - Groundwater monitoring wells not used for contouring
8. NS - Not Sampled

N

0 250 500 1,000 Feet

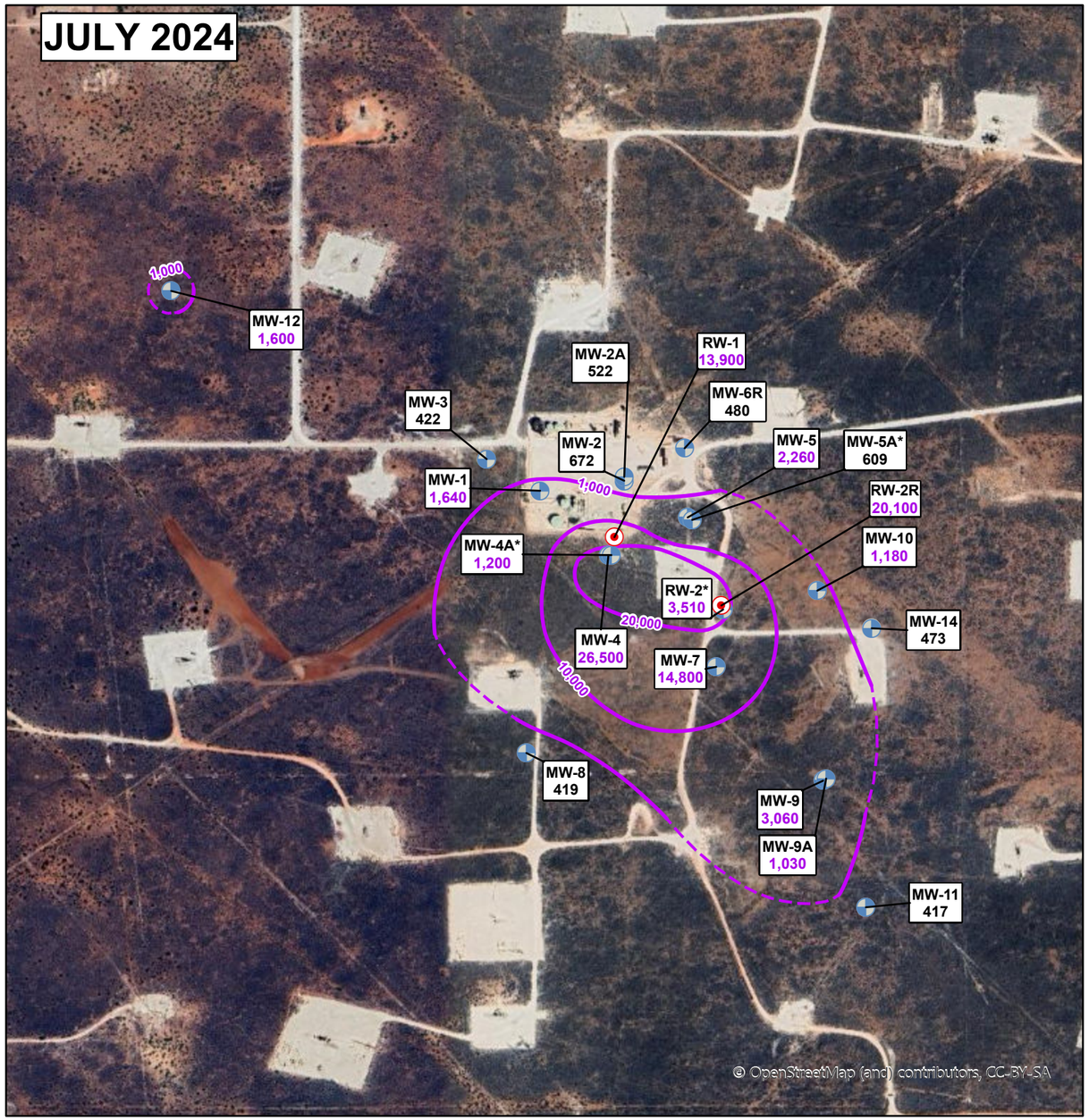
Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

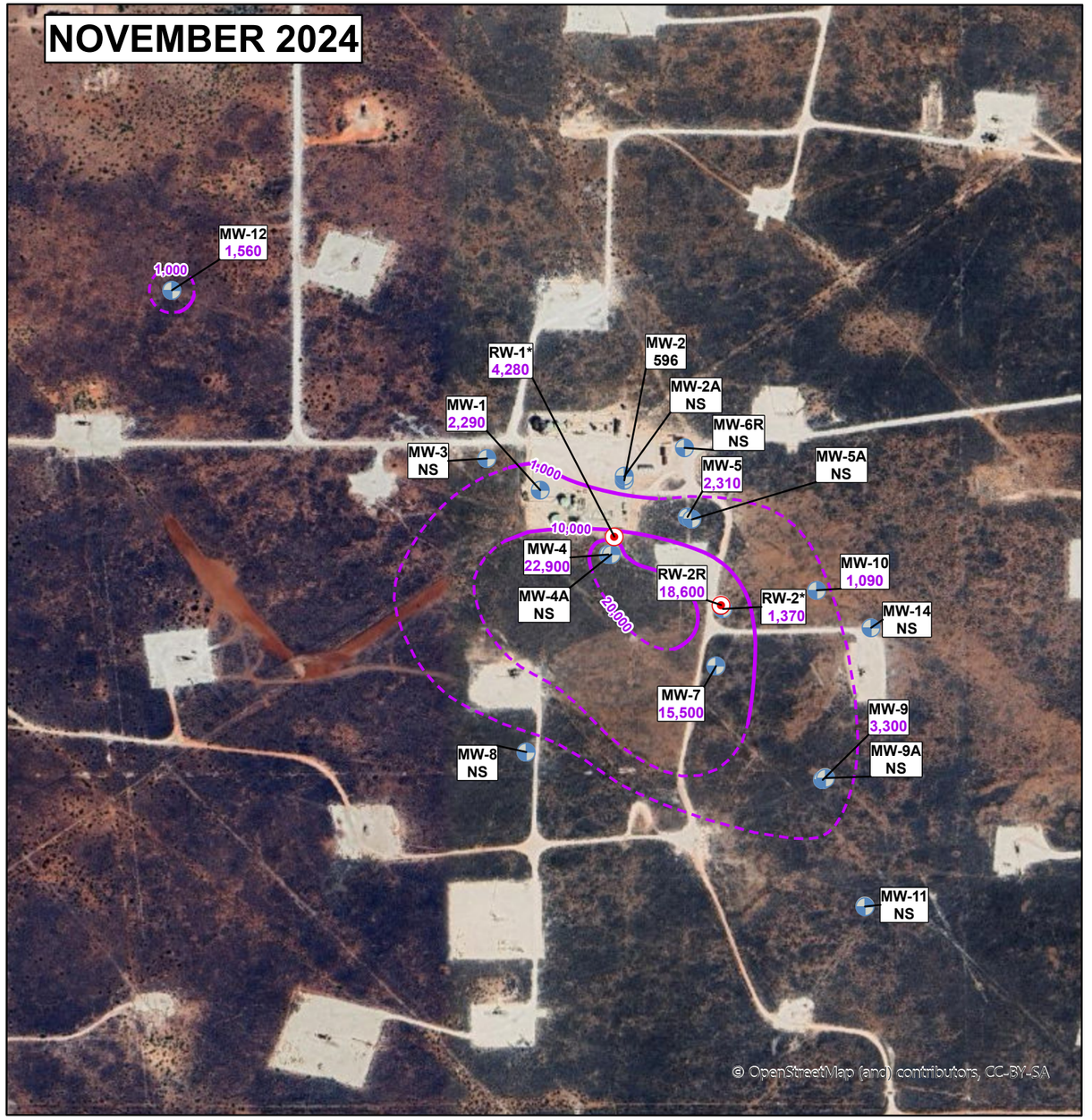
SEMI-ANNUAL CHLORIDE ISOCONCENTRATION MAPS 2024

ARCADIS

FIGURE 4

Document Path: T:_ENV\Upstream\Cooper_Jal\PRO\Cooper Jal Annual Report.aprx, User Name: joym8537





Legend

- Monitoring Well Location
- Recovery Well
- 1,000 — Total Dissolved Solids (TDS) Isoconcentration Contour (Dashed where Inferred)
- 419 — TDS Concentration in milligrams per liter (mg/L)
- 1,200 — TDS Concentration (mg/L) Exceeds New Mexico Water Quality Control Commission Other Standards for Domestic Water Supply

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not gauged.
3. Site Location: 32.19891, -103.21523
4. MW-12 was installed off-site and upgrade of plume.
5. NMWQCC Groundwater Standard (mg/L)
6. * - Groundwater monitoring wells not used for contouring
7. NS - Not Sampled

N

0 250 500 1,000 Feet

Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

SEMI-ANNUAL TDS ISOCONCENTRATION MAPS 2024

ARCADIS

FIGURE 5

Document Path: T:_ENV\Upstream\Cooper_Jal\PRO\Cooper Jal Annual Report.aprx, User Name: avi00976

JULY 2024

MW-12 NA
MW-3 NA
MW-2 NA
MW-2A NA
MW-6R NA
MW-5 NA
MW-1 NA
RW-1 NA
MW-5A NA
MW-4 NA
MW-10 NA
600
MW-14 NA
MW-4A 91.7
RW-2R 845
RW-2 NA
MW-7 NA
MW-8 NA
MW-9A NA
MW-9 NA
MW-11 NA

Legend

- Monitoring Well Location
- Recovery Well
- 100 — Sulfate Isoconcentration Contour (dashed where Inferred)
- 91.7 — Sulfate Concentration in milligrams per liter (mg/L)
- 845 — Sulfate Concentration (mg/L) Exceeds NMWQCC Other Standards for Domestic Water Supply

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not gauged.
3. Site Location: 32.19891, -103.21523
4. NMWQCC Groundwater Standard (mg/L)
5. NA = Not Analyzed

N

0 200 400 800 Feet

Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

ANNUAL SULFATE ISOCONCENTRATION MAP 2024

ARCADIS

FIGURE 6

Document Path: T:_ENV\Upstream\Cooper_Jal\PRO\Cooper Jal Annual Report.aprx, User Name: joym8537

REGULATORY BACKGROUND

Site assessment activities were initiated in 1993 when Environmental Spill Control, Inc. (ESCI) of Hobbs, New Mexico, performed a subsurface assessment of an unlined earthen produced water overflow pit, reportedly located adjacent to the western edge of the Site. During the investigation, five boreholes were advanced to depths ranging from 15 feet below ground surface (ft bgs) to 100 ft bgs. The investigation revealed the presence of hydrocarbon-impacted soil. In 1996, Texaco Exploration and Production, Inc. (Texaco) filed a notice of intent to close the pit with the New Mexico Oil Conservation Division (NMOCD). Approximately 1,248 cubic yards (cy) of hydrocarbon-impacted soil were removed from the pit. During the closure activities, the excavation was lined with imported clay and backfilled with imported caliche. Texaco submitted a pit closure report to the NMOCD in December 1996.

In 1997, the NMOCD requested additional assessment activities to define the vertical extent of affected soil beneath the former pit. Assessment activities performed by Highlander Environmental Corporation revealed elevated chloride concentrations in the soil. In October 1997, monitor well MW-1 was installed near the former pit. Groundwater samples collected from the monitor well contained chloride concentrations above the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standards for Groundwater (250 milligrams per liter [mg/L]). Assessment activities performed through May 1998 included the installation of 13 additional monitor wells. In 1998, electromagnetic (EM 34) terrain conductivity surveys were completed to identify areas of elevated chloride concentrations in soil.

REGULATORY FRAMEWORK

The NMOCD of the New Mexico Energy, Minerals, and Natural Resources Department has regulatory jurisdiction over corrective actions conducted at the Site. Corrective actions follow guidance given by the NMOCD in *Guidelines for Remediation of Leaks, Spills, and Releases (August 13, 1993).* These guidelines require remediation of four constituents of concern (COCs) in groundwater to the human health standards of the NMWQCC set forth in New Mexico Administrative Code 20.6.2.3103B as follows:

Analyte	NMWQCC Standard for Groundwater (mg/L)
Chloride	250
Total Dissolved Solids (TDS)	1,000
Fluoride	1.6
Sulfate (SO4)	600

Note: mg/L = milligrams per liter

The original analyte list included carbonate alkalinity, bicarbonate alkalinity, total alkalinity, nitrate-N, calcium, magnesium, potassium, sodium, chlorides, TDS, fluoride, and sulfate. In a letter to the NMOCD, dated December 15, 2014, GHD, on behalf of CEMC, requested a reduction in the list of analytical parameters and a reduction in the wells included in the monitoring program. In a subsequent email, dated May 19, 2015, the NMOCD approved the reduction of the list of analyses to chlorides, TDS, fluoride, and sulfate only. No wells were eliminated from the monitoring program. Arcadis, on behalf of CEMC, prepared and submitted the Proposal Groundwater Monitoring Reduction Workplan to the NMOCD in July 2020, which would reduce the number of wells that would be sampled during the second semiannual groundwater sampling event to 11 out of 20 wells (MW-1, MW-2, MW-4, MW-5,

MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R). In an email from the NMOCD dated February 13, 2023, the proposed reduction plan was approved with an additional request to collect annual sulfate analysis from two site wells, one monitoring well, MW-4A, and one site recovery well, RW-2R.

Arcadis prepared the Cooper Jal 2021 Stage 2 & 2 Abatement Plan which was submitted to the NMOCD in July 2022. On February 1, 2023, Arcadis and CEMC met with NMOCD to review the 2021 Stage 1 & 2 abatement plan to discuss the additional information that will need to be included prior to the NMOCD's approval. In an email from the NMOCD dated February 20, 2023, the Cooper Jal 2021 Stage 1& 2 Abatement Plan was officially rejected requiring additional information for approval. Arcadis will update the Cooper Jal Stage 1 and Stage 2 Abatement plan and attempt to schedule a meeting with NMOCD to review the corrected sections to ensure that the required expectations of NMOCD are fully met.

GROUNDWATER SAMPLING AND ANALYSIS

In June 1998, Texaco prepared a groundwater corrective action plan to mitigate chloride concentrations and to provide plume containment by extracting groundwater from the affected groundwater-bearing unit (GWBU). Between 1999 and 2013, assessment activities included the installation of wells MW-6R, MW-11 to MW-14, RW-1, RW-2, and RW-2R. Monitor well MW-6 was plugged and abandoned in September 2013 due to a damaged well casing. Due to on-Site wells (MW-1, MW-2, MW-2A, MW-3, and MW-6) fully delineating the northern boundary of the chloride plume, monitor well MW-13, located approximately 1,000 feet up-gradient and off-Site, was plugged and abandoned on July 11, 2017. Semiannual groundwater monitoring activities and annual reporting to the NMOCD for this Site have been performed by GHD (formerly Conestoga-Rovers & Associates, Inc. [CRA]) since 2005 and continued until 2018. Arcadis has since then taken over the semiannual groundwater monitoring activities and annual reporting to the NMOCD from 2019 to 2023.

Groundwater at the Site is monitored semiannually via a network of 18 monitor wells and 2 recovery wells. Arcadis collected samples from 18 monitoring and recovery wells (MW-1, MW-2, MW-2A, MW-3, MW-4A, MW-5, MW-5A, MW-6R, MW-7, MW-8, MW-9, MW-9A, MW-11, MW-12, MW-14, RW-1, RW-2, and RW-2R) during the June 20, 2019 sampling event, and only collected 3 samples (MW-6R, MW-9, and MW-14) on November 23, 2019. During 2020 Arcadis developed a revised semi-annually sampling plan. On February 13, 2023 the proposed reduction plan was approved with an additional request to collect annual sulfate analysis from two site wells, one monitoring well, MW-4A, and one site recovery well, RW-2R. During each sampling event, all Site wells are gauged to determine depth to water and depth to non-aqueous phase liquid (LNAPL), if present. Additionally, Arcadis collects conductivity readings through the water column at two-foot intervals at each Site well annually in conjunction with the first semi-annual sampling event.

All 20 site monitoring and recovery wells were sampled during the first semiannual event conducted on April 20, 2020. Eleven of the monitoring and recovery wells (MW-1, MW-2, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R) were sampled during the second semiannual monitoring event performed on October 12, 2020. All 20 site monitoring and recovery wells were sampled during the first semiannual monitoring event conducted on June 25, 2021. Eleven of the monitoring and recovery wells (MW-1, MW-2, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R) were sampled during the second semiannual event performed on December 6, 2021. All 20 site monitoring and recovery wells were sampled during the first semiannual monitoring event conducted on July 20, 2023. Eleven of the monitoring and recovery wells (MW-1, MW-2, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, RW-2R) were sampled during the second semiannual monitoring event performed on November 13, 2023 as per the 2023 SAP. All 20 wells were sampled at the Site

during the July-August 2024 sampling event. Eleven of 20 Site wells were sampled during the second semiannual monitoring event performed on November 13, 2024, as per the 2023 SAP.

Historically, chloride concentrations show decreasing trends in upgradient monitor wells MW-1, MW-2, and MW-5, as shown on concentration versus date graphs in Exhibit 1A, available in the *2018 Annual Groundwater Monitoring Report*. Increasing trends have been observed since 1997 in downgradient monitor wells MW-7, MW-9, MW-9A, and MW-10, as indicated in Exhibit 1B (available in the *2018 Annual Groundwater Monitoring Report*), although more recent data indicate that these concentrations are stabilizing with some variability, with the exception of monitor well MW-7. Similar trends are apparent in TDS and sulfate concentrations. There are no strong trends in the observed historical concentrations of fluoride. Based on current and historical concentration data, the groundwater plume at the Site is fully delineated.

Soil Boring and Monitor Well Installation

The New Mexico Office of the State Engineer (NMOSE) governs water usage in the State of New Mexico. Applications for Permits to Appropriate Groundwater were submitted by Texaco in October 1999 and were approved with specific conditions in June 2008. A total of 65 acre-feet (ac-ft) per annum from the two on-Site recovery wells (RW-1 and RW-2) was granted by the NMOSE for environmental remediation purposes. Usage of groundwater was granted by the NMOSE under well permits CP-884 (RW-2; 32.5 ac-ft per annum) and CP-885 (RW-1; 32.5 ac-ft per annum).

Due to apparent damage at RW-2 that would prevent the installation of a pump, RW-2R was installed under well permit CP-884-POD2 to replace RW-2 in 2013. An application to change the designation of RW-2 from a recovery well to a monitor well was submitted on December 16, 2016. This was done to allow the well to remain in the monitor well network instead of being plugged and abandoned. The change was conditionally approved, pending further assessment of the well integrity, by the NMOSE in a phone conversation on January 9, 2017. On February 10, 2017, GHD further assessed RW-2 and found the annular seal to be compliant with New Mexico Administrative Code (NMAC) 19.27.4.30 Regulations and the well casing and well pad to be in good condition. These findings were documented in a letter sent to the NMOSE on February 16, 2017. Based on GHD's understanding of the January 9, 2017, conversation, RW-2 is now designated as a monitor well.

To date, neither RW-1 nor RW-2R have been equipped for groundwater recovery and the Extension of Time was not requested after April 30th, 2020. A new application to NMOSE will be submitted if these wells are to become equipped in the future.

GEOLOGY/HYDROGEOLOGY ASSESSMENT

Site Setting

The Site is located on Lea County Road J7, approximately five and a half miles northwest of Jal, New Mexico, in Section 24, Township 24 South, Range 36 East, Lea County, New Mexico. The latitude and longitude coordinates of the Site are N 32° 12' 7.13" N and 103° 13' 4.36" W.

Land in the vicinity of the Site is utilized primarily for livestock ranching and oil and gas production, and production and has areas of undeveloped rangeland vegetated with indigenous grass. An injection well facility, operated by Resaca Resources, LLC (Resaca), is located adjacent to the Site. No active Chevron U.S.A. Inc. (Chevron) operations are present in the area.

Regional Geologic Conditions

The region is characterized by a surface cover of up to 200 feet of unconsolidated to semi-lithified sediments of the Ogallala Formation consisting of sand, clay, and fluvial gravel. The upper portion of the Ogallala Formation has been heavily cemented by caliche. The Tertiary-aged sediments are underlain by the Triassic-aged Dockum Group shale ("red beds").

Site Geology

The Site boring logs used to interpret the Site geology included the October 2013 GHD field work and logs from previous groundwater assessments. The locations of the soil borings and monitor wells are shown on Figure 2. The subsurface stratigraphy typically included the following:

- A thick sand (0 to 163 feet) layer of unconsolidated fine sand containing trace caliche nodules. Sand grains gradually increasing to fine to medium grained at 140 feet,
- A fine sand layer typically ranging from 3 feet to 30 feet,
- A sandy clay layer typically ranging from 2 feet to 11 feet directly above the upper Dockum "redbeds",
- Red and gray weathered shale and mudstone "redbeds" of the Triassic Dockum Group that form the underlying confining layer.

Hydrogeologic Conditions

Regional groundwater flow in the Ogallala Aquifer is controlled by the slope of the land surface to the south with localized eastward flow into the valley of Monument Draw. The aquifer typically behaves as an unconfined aquifer. Monument Draw is an intermittent stream that contains water only after heavy rains (Texas Water Development Board [TWDB], 2008)1. The Dockum Group Shale is considered the underlying aquitard for the Ogallala Aquifer.

Site Hydrogeology

Groundwater beneath the Site is found within the lower Ogallala deposits. The depth to groundwater at the Site ranges from approximately 129.89 to 139.81 ft bgs, based on the groundwater monitoring event conducted in July/November 2023. The saturated thickness of the unconfined aquifer ranges from approximately 15 to 30 ft. The saturated thickness varies in conjunction with the elevation of the top of the Dockum shale. The thickest saturated portion of the Ogallala is to the southwest where the bedrock surface of the Dockum is the lowest. A dry borehole was encountered at BH-C, east of the property boundary of the Site.

At the Site, the local groundwater flow direction trends to the southeast with an average horizontal hydraulic gradient of approximately 0.0026 feet per foot (ft/ft), as presented in the attached figures. The southeast groundwater flow direction observed at the Site is consistent with the regional groundwater flow direction to the southeast in the Ogallala Aquifer. The deflection to the east at the eastern property boundary is likely related to the break of the slope of the land towards the Monument Draw to the east.

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-1	09/16/97	--	--	280.00	**8,500.00**	--	--	**1,100.00**	520.00	630.00	50.00	4,300.00	**15,000.00**
	02/25/98	--	--	280.00	**5,600.00**	--	--	570.00	285.00	520.00	116.00	2,900.00	**9,300.00**
	02/14/01	<1.00	306.00	306.00	**11,000.00**	**4.40**	7.70	**1,000.00**	374.00	780.00	236.00	5,236.00	**20,000.00**
	05/17/02	<1.00	208.00	208.00	237.00	**5.83**	3.28	86.90	45.70	20.10	11.90	184.00	784.00
	10/23/02	--	--	--	168.00	--	--	96.80	--	--	--	--	696.00
	05/21/03	<1.00	290.00	290.00	**6,600.00**	<8.00	**10.90**	**875.00**	238.00	475.00	96.50	3,410.00	**13,200.00**
	11/25/03	<1.00	250.00	250.00	**402.00**	**7.03**	2.72	125.00	19.20	22.00	18.50	294.00	**1,158.00**
	05/12/04	<1.00	264.00	264.00	**504.00**	**7.31**	2.70	136.00	17.20	23.10	22.40	355.00	**1,328.00**
	11/16/04	<1.00	232.00	232.00	**384.00**	**4.94**	3.30	103.00	29.20	22.70	25.40	373.00	952.00
	11/16/05	<10.00	262.00	262.00	**1,210.00**	**3.00**	2.40	215 D1	85.40	92.60	23.00	847.00	**2,640.00**
	11/14/06	<10.00	200.00	200.00	96.00	**4.20**	2.00	76.00	13.20	6.49	15.60	172.00	624.00
	11/16/07	<10.00	255.00	255.00	**4,250.00**	**3.70**	3.90 D1	602 D1	154.00	187.00	54.00	2,100 D1	**10,900.00**
	11/04/08	<5.00	190.00	190.00	110.00	**6.30**	1.60	83.00	10.00	5.80	7.90	180.00	590.00
	11/03/09	<10.00	270.00	270.00	**4,100.00**	**4.10**	2.80	**640.00**	190.00	250.00	61.00	2,300.00	**8,000.00**
	11/10/10	<10.00	223.00	223.00	**2,670.00**	**1.92**	2.62	373.00	138.00	196.00	21.50	1,480.00	**5,020.00**
	11/10/11	<5.00	209.00	209.00	**3,220.00**	1.02	2.37	275.00	169.00	176.00	22.50	1,340.00	**5,250.00**
Dup	11/10/11	<5.00	213.00	213.00	**2,930.00**	1.05	2.35	240.00	183.00	197.00	22.60	1,480.00	**4,640.00**
	10/11/12	<5.00	190.00	190.00	**2,190.00**	**6.74**	4.52	301.00	132.00	145.00	17.90	1,140.00	**1,880.00**
	10/08/13	<6.00	211.00	211.00	**1,890.00**	1.46	2.39	247.00	131.00	114.00	15.30	914.00	**2,380.00**
	10/07/14	<4.00	205.00	205.00	**1,700.00**	0.46	2.37	277.00	118.00	126.00	14.90	860.00	**3,690.00**
	10/21/15	--	--	--	182.00	<4.00	--	78.10	--	--	--	--	559.00
	10/18/16	--	--	--	**1,320.00**	0.83	--	221.00	--	--	--	--	**2,700.00**
	10/24/17	--	--	--	148.00	**2.57**	--	79.40	--	--	--	--	594.00
	10/18/18	--	--	--	**1,290.00**	0.79	--	215.00	--	--	--	--	**2,360.00**
	06/20/19	--	--	--	**1,110.00**	--	--	--	--	--	--	--	**2,510.00**
	11/24/19				**1,110.00**			222.00					**2,190.00**
	4/20/20	--	--	--	**317.00**	--	--	--	--	--	--	--	826.00
	10/12/20	--	--	--	**285.00**	--	--	--	--	--	--	--	799.00
	06/25/21	--	--	--	**938.00**	--	--	--	--	--	--	--	**2,030.00**
	12/06/21	--	--	--	**656.00**	--	--	--	--	--	--	--	**1,800.00**
	08/23/22	--	--	--	**805**	--	--	--	--	--	--	--	**1,540**
	12/21/22	--	--	--	**960**	--	--	--	--	--	--	--	**1,240**
	07/20/23	--	--	--	**736**	--	--	--	--	--	--	--	**1,720**
	11/13/23	--	--	--	**857**	--	--	--	--	--	--	--	**1,840**
	08/01/24	--	--	--	**598**	--	--	--	--	--	--	--	**1,640**
	11/12/24	--	--	--	**768**	--	--	--	--	--	--	--	**2,290**
MW-2	02/25/98	--	--	210.00	**5,900.00**	--	--	**760.00**	840.00	380.00	30.00	2,650.00	**9,400.00**
	04/09/98	--	--	290.00	**8,200.00**	--	--	**990.00**	1,100.00	490.00	29.00	3,430.00	**15,000.00**
	02/14/01	<1.00	184.00	184.00	**7,400.00**	**2.30**	4.10	**870.00**	1,025.00	488.00	48.50	3,189.00	**15,000.00**
	05/17/02	<1.00	160.00	160.00	**3,200.00**	**1.72**	3.18	483.00	587.00	239.00	35.60	1,160.00	**6,040.00**
	10/23/02	--	--	--	**2,920.00**	--	--	451.00	--	--	--	--	**6,770.00**
	05/22/03	<1.00	158.00	158.00	**2,550.00**	**2.04**	3.87	386.00	448.00	176.00	20.00	1,020.00	**5,880.00**
	11/25/03	<1.00	160.00	160.00	**3,330.00**	<4.00	5.63	446.00	555.00	227.00	32.00	1,120.00	**6,760.00**
	05/12/04	<1.00	146.00	146.00	**1,750.00**	<2.00	2.78	246.00	308.00	112.00	29.70	549.00	**3,965.00**
	11/16/04	<1.00	120.00	120.00	**430.00**	<1.00	2.13	56.90	104.00	29.40	22.40	158.00	832.00
	11/16/05	<10.00	171.00	171.00	**4,720.00**	0.72	2.60	645 D1	594.00	209.00	20.80	3,290.00	**10,000.00**
	11/14/06	<10.00	160.00	160.00	**3,500.00**	0.78 N	2.10	470.00	535.00	212.00	21.00	15,400.00	**8,260.00**
	11/14/07	<10.00	178.00	178.00	**3,280.00**	0.76	1.93	462 D1	449.00	152.00	16.20	1310 D1	**9,110.00**
	11/04/08	<5.00	150.00	150.00	**2,900.00**	<1.0	1.10	430.00	380.00	160.00	26.00	1,200.00	**5,600.00**
	11/16/09	<10.00	150.00	150.00	**2,000.00**	1.10	1.60	340.00	290.00	120.00	20.00	750.00	**4,300.00**
	11/12/10	<10.00	186.00	186.00	**1,890.00**	0.73	1.86	327.00	326.00	120.00	9.80	795.00	**3,680.00**
	11/10/11	<5.00	175.00	175.00	**1,480.00**	0.81	1.31	150.00	227.00	83.20	9.75	668.00	**2,860.00**
	10/11/12	<5.00	149.00	149.00	**524.00**	0.55	1.92	231.00	119.00	31.70	8.78	286.00	**1,090.00**
	10/08/13	<6.00	269.00	269.00	**1,180.00**	1.20	<0.10	169.00	178.00	64.70	8.16	505.00	**2,520.00**
	10/07/14	<4.00	196.00	196.00	**695.00**	0.52	<0.023	147.00	143.00	47.50	7.30	343.00	**1,310.00**
	10/21/15	--	--	--	27.10	<2.00	--	58.60	--	--	--	--	388.00
	10/18/16	--	--	--	26.70	<0.50	--	34.40	--	--	--	--	352.00
	10/25/17	--	--	--	35.80	1.00	--	36.30	--	--	--	--	331.00
	10/18/18	--	--	--	65.90	0.66	--	48.50	--	--	--	--	384.00
	06/20/19	--	--	--	**283.00**	--	--	--	--	--	--	--	960.00
	11/23/19				27.70			42.00					274.00
	04/20/20	--	--	--	**263.00**	--	--	--	--	--	--	--	624.00
	10/12/20	--	--	--	221.00	--	--	--	--	--	--	--	675.00
	06/25/21	--	--	--	205.00	--	--	--	--	--	--	--	685.00
	12/06/21	--	--	--	183.00	--	--	--	--	--	--	--	675.00
	08/23/22	--	--	--	**1,190**	--	--	--	--	--	--	--	**2,250**
	12/21/22	--	--	--	239	--	--	--	--	--	--	--	494
	07/20/23	--	--	--	137	--	--	--	--	--	--	--	437
	11/13/23	--	--	--	194	--	--	--	--	--	--	--	546
	08/01/24	--	--	--	116 J6	--	--	--	--	--	--	--	672
	11/12/24	--	--	--	152	--	--	--	--	--	--	--	596

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-2A	02/26/98	--	--	190.00	**280.00**	--	--	330.00	144.00	36.00	5.70	215.00	**1,200.00**
	02/14/01	<1.00	162.00	162.00	44.00	1.30	2.30	76.00	64.40	16.70	7.02	45.50	390.00
	05/15/02	<1.00	176.00	176.00	36.60	<1.00	2.34	79.10	57.60	13.90	4.35	43.80	435.00
	10/23/02	--	--	--	44.30	--	--	97.00	--	--	--	--	425.00
	05/22/03	<1.00	168.00	168.00	40.50	<1.00	2.18	75.50	67.20	14.30	3.76	47.90	418.00
	11/25/03	<1.00	166.00	166.00	43.10	1.00	2.23	77.40	51.70	14.40	3.98	43.80	452.00
	05/12/04	<1.00	176.00	176.00	44.80	<1.00	2.24	76.50	62.90	15.00	3.66	43.60	440.00
	11/16/04	<1.00	164.00	164.00	52.50	1.22	2.78	75.40	68.80	15.30	3.98	49.10	428.00
	11/16/05	<10.00	151.00	151.00	56.80	0.60	2.30	75.1 D1	157.00	18.00	4.20	49.80	630 N
	11/14/06	<10.00	180.00	180.00	49.00	0.55	1.60	76.00	69.80	15.60	3.47	49.90	488.00
	11/14/07	<10.00	170.00	170.00	74.60	0.58	1.51	66.8 D1	666.00	15.30	<5.00	45.40	504.00
	11/04/08	<5.00	220.00	220.00	68.00	0.49	1.40	74.00	67.00	15.00	3.20	42.00	470.00
	11/03/09	<10.00	230.00	230.00	62.00	0.59	1.60	81.00	66.00	15.00	3.40	50.00	480.00
	11/11/10	<10.00	158.00	158.00	86.10	0.45	1.73	74.00	53.90	14.90	2.86	42.80	474.00
	11/10/11	<5.00	175.00	175.00	129.00	0.28	1.25	101.00	92.50	23.30	4.17	64.70	614.00
	10/11/12	<5.00	173.00	173.00	76.50	0.46	1.60	79.40	69.20	15.70	3.62	45.30	500.00
	10/08/13	<6.00	248.00	248.00	78.60	0.41	0.62	75.40	92.60	18.70	4.06	51.20	496.00
	10/07/14	<4.00	188.00	188.00	72.50	0.20	1.55	79.40	77.10	17.20	3.00	44.30	496.00
	10/21/15	--	--	--	76.70	<4.00	--	77.50	--	--	--	--	441.00
	10/18/16	--	--	--	84.60	<0.50	--	83.40	--	--	--	--	455.00
	10/25/17	--	--	--	83.10	1.23	--	77.30	--	--	--	--	512.00
	10/18/18	--	--	--	103.00	0.67	--	88.30	--	--	--	--	491.00
	06/20/19	--	--	--	86.50	--	--	--	--	--	--	--	554.00
	11/23/19				88.00			76.50					414.00
	04/20/20	--	--	--	126.00	--	--	--	--	--	--	--	526.00
	06/25/21	--	--	--	96.30	--	--	--	--	--	--	--	510.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/22	--	--	--	124.00	--	--	--	--	--	--	--	560.00
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	102	--	--	--	--	--	--	--	551
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
	08/01/24	--	--	--	107 J6	--	--	--	--	--	--	--	522
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/27/98	--	--	190.00	**452.00**	--	--	406.00	200.00	50.00	11.00	237.00	**1,500.00**
	02/14/01	<1.00	158.00	158.00	34.00	**1.60**	2.40	100.00	54.50	19.00	7.61	48.60	440.00
	05/17/02	<1.00	158.00	158.00	30.60	1.56	2.35	102.00	55.60	18.40	5.04	50.00	433.00
	10/23/02	--	--	--	35.40	--	--	104.00	--	--	--	--	419.00
	05/22/03	<1.00	156.00	156.00	30.60	1.17	2.25	96.30	53.20	17.80	5.39	54.60	435.00
	11/25/03	<1.00	160.00	160.00	31.40	1.35	2.30	103.00	46.50	18.00	5.19	51.70	440.00
	05/12/04	<1.00	164.00	164.00	32.30	1.20	2.38	101.00	52.20	16.80	4.77	47.50	448.00
	11/16/04	<1.00	166.00	166.00	35.10	1.53	2.77	95.40	56.30	23.60	12.70	58.90	424.00
	11/17/05	<10.0	171.00	171.00	96.30	0.97	2.20	108 D1	89.20	22.10	8.87	93.40	840.00
	11/15/06	<10.00	170.00	170.00	30.00	0.92 N	1.70	96.00	51.30	17.30	4.30	57.20	505.00
	11/16/07	<10.00	170.00	170.00	39.70	0.93	1.58	88.2 D1	50.80	16.30	<5.00	50.60	570.00
	11/06/08	<5.00	150.00	150.00	36.00	1.10	1.40	97.00	50.00	17.00	4.00	48.00	430.00
	11/03/09	<10.00	160.00	160.00	35.00	1.10	1.60	110.00	49.00	17.00	4.20	56.00	410.00
	11/10/10	<10.00	164.00	164.00	35.40	0.84	1.77	99.90	48.80	15.20	3.42	45.10	380.00
	11/10/11	<5.00	165.00	165.00	36.40	0.83	1.35	87.90	57.90	18.00	3.79	53.00	404.00
	10/11/12	<5.00	162.00	162.00	36.60	1.01	1.74	100.00	51.20	16.90	4.11	51.00	438.00
	10/08/13	<6.00	194.00	194.00	38.40	1.02	1.17	98.70	56.50	18.30	4.08	54.90	450.00
	10/07/14	<4.00	187.00	187.00	19.50	0.37	1.39	62.80	44.30	9.82	22.40	38.80	332.00
	10/21/15	--	--	--	25.60	<2.00	--	74.80	--	--	--	--	307.00
	10/18/16	--	--	--	37.10	0.66	--	109.00	--	--	--	--	464.00
	10/24/17	--	--	--	35.90	1.50	--	98.70	--	--	--	--	442.00
	10/18/18	--	--	--	209.00	**5.35**	--	567.00	--	--	--	--	415.00
	06/20/19	--	--	--	40.00	--	--	--	--	--	--	--	448.00
	11/23/19				60.00			96.60					352.00
	04/20/20	--	--	--	68.5 F2 F1	--	--	--	--	--	--	--	435.00
Dup	04/20/20	--	--	--	69.60	--	--	--	--	--	--	--	502.00
	06/25/21	--	--	--	42.20	**--**	--	**--**	--	--	--	--	424.00
	12/06/21	--	--	--	**--**	**--**	--	**--**	--	--	--	--	**--**
	08/24/22	--	--	--	43.10	**--**	--	**--**	--	--	--	--	417.00
	12/21/22	--	--	--	**--**	**--**	--	**--**	--	--	--	--	**--**
	07/21/23	--	--	--	41.7	--	--	--	--	--	--	--	430 B
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
	08/02/24	--	--	--	33.5	--	--	--	--	--	--	--	422
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	02/27/98	--	--	230.00	**12,000.00**	--	--	**1,300.00**	1,700.00	880.00	48.00	5,300.00	**22,000.00**
	04/09/98	--	--	240.00	**13,000.00**	--	--	**1,500.00**	1,740.00	840.00	42.00	5,400.00	**23,000.00**
	02/14/01	<1.00	232.00	232.00	**15,000.00**	**1.80**	6.80	**1,500.00**	--	--	--	--	**29,000.00**
	05/17/02	<1.00	232.00	232.00	**11,300.00**	**2.01**	6.09	**1,380.00**	1,610.00	814.00	60.90	4,310.00	**22,600.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					*250*	*1.60*	*10*	*600.00*					*1,000*
MW-4	10/23/02	--	--	--	**11,300.00**	--	--	**1,320.00**	--	--	--	--	**23,200.00**
(Continued)	05/22/03	<1.00	220.00	220.00	**11,300.00**	<10.00	**12.30**	**1,370.00**	1,450.00	659.00	47.30	4,140.00	**62,500.00**
	11/26/03	<1.00	218.00	218.00	**12,100.00**	<8.00	**12.30**	**1,400.00**	1,830.00	889.00	62.00	4,620.00	**54,450.00**
	05/11/04	<1.00	214.00	214.00	**14,200.00**	<8.00	8.97	**1,560.00**	1,800.00	829.00	60.70	4,850.00	**65,450.00**
	11/17/04	<1.00	222.00	222.00	**13,600.00**	<20.00	**31.50**	**1,410.00**	2,020.00	972.00	73.60	5,900.00	**25,200.00**
	11/17/05	<10.00	181.00	181.00	**9,440.00**	0.82	0.20	45.8 D1	849.00	387.00	28.10	3,880.00	**24,300.00**
	11/15/06	<10.00	260.00	260.00	**14,000.00**	<5.00 C	5.20	**1,400.00**	1,760.00	897.00	58.80	6,150.00	**28,700.00**
	11/14/07	<10.00	255.00	255.00	**14,800.00**	0.54	7.15 D1	1,410 D1	1,170.00	382.00	48.00	4,760 D1	**36,300.00**
	11/12/08	<5.00	200.00	200.00	**12,000.00**	1.20	0.33	**1,300.00**	1,500.00	840.00	82.00	4,800.00	**22,000.00**
	11/04/09	<5.00	250.00	250.00	**15,000.00**	1.10	5.30	**1,600.00**	1,500.00	1,000.00	65.00	5,800.00	**30,000.00**
	11/11/10	<5.00	294.00	294.00	**15,500.00**	<1.00	**10.20**	**1,270.00**	1,380.00	904.00	40.40	5,450.00	**25,500.00**
	11/10/11	<5.00	277.00	277.00	**16,900.00**	0.11	6.16	**1,060.00**	1,680.00	1,110.00	40.00	6,490.00	**28,900.00**
	10/11/12	<5.00	256.00	256.00	**5,850.00**	**2.10**	4.58	**629.00**	434.00	334.00	21.20	2,620.00	**12,000.00**
	10/08/13	<6.00	294.00	294.00	**16,200.00**	0.72	6.79	**1,460.00**	1,690.00	1,180.00	40.80	7,370.00	**36,300.00**
	10/07/14	<4.00	291.00	291.00	**15,000.00**	<100.00	7.15	**1,740.00**	1,350.00	1,060.00	44.10	4,250.00	**32,400.00**
	10/20/15	--	--	--	**3,200.00**	<40.00	--	402.00	--	--	--	--	**7,070.00**
	10/18/16	--	--	--	**17,900.00**	<1.00	--	**1,890.00**	--	--	--	--	**35,300.00**
	10/25/17	--	--	--	**6,830.00**	<5.00	--	**754.00**	--	--	--	--	**12,300.00**
	10/18/18	--	--	--	**14,800.00**	<0.10	--	**1,510.00**	--	--	--	--	**24,700.00**
	06/20/19				**2,760.00**			NS					**7,830.00**
	11/24/19				**3,050.00**			420.00					**5,960.00**
	04/20/20	--	--	--	**14,600.00**	--	--	--	--	--	--	--	**28,900.00**
	10/12/20	--	--	--	**14,200.00**	--	--	--	--	--	--	--	**25,600.00**
	06/25/21	--	--	--	**13,600.00**	--	--	--	--	--	--	--	**28,400.00**
	12/06/21	--	--	--	**8,700.00**	--	--	--	--	--	--	--	**24,000.00**
	08/23/22	--	--	--	73.6	--	--	--	--	--	--	--	465.00
	12/21/22	--	--	--	**13,600**	--	--	--	--	--	--	--	**16,400**
	07/21/23	--	--	--	**13,300**	--	--	--	--	--	--	--	**19,800**
	11/13/23	--	--	--	**13,700**	--	--	--	--	--	--	--	**23,800**
	08/01/24	--	--	--	**10,800**	--	--	--	--	--	--	--	**26,500**
	11/12/24	--	--	--	**13,400**	--	--	--	--	--	--	--	**22,900**
MW-4A	02/27/98	--	--	180.00	**1,600.00**	--	--	410.00	470.00	130.00	11.00	620.00	**3,300.00**
	02/14/01	<1.00	154.00	154.00	**1,600.00**	1.40	2.80	210.00	--	--	--	--	**4,000.00**
	05/15/02	<1.00	156.00	156.00	**577.00**	<1.00	2.23	121.00	200.00	49.50	10.30	125.00	**1,610.00**
	10/23/02	--	--	--	**478.00**	--	--	114.00	--	--	--	--	**1,430.00**
	05/22/03	<1.00	154.00	154.00	**844.00**	<1.00	2.43	160.00	279.00	58.90	10.10	248.00	**2,200.00**
	11/26/03	<1.00	158.00	158.00	**1,060.00**	<4.00	5.82	182.00	337.00	79.30	15.20	329.00	**2,585.00**
	05/11/04	<1.00	156.00	156.00	**984.00**	<2.00	3.30	179.00	297.00	66.50	11.50	279.00	**2,300.00**
	11/17/04	<1.00	164.00	164.00	**1,110.00**	<2.00	4.62	186.00	369.00	75.40	14.90	413.00	**2,235.00**
	11/16/05	<10.0	181.00	181.00	**827 D1**	<0.50	2.20	160 D1	335.00	64.40	9.23	382.00	**2,340 N**
	11/15/06	<10.00	620.00	620.00	**960.00**	<0.50	2.60	170.00	227.00	53.50	8.10	406.00	**2,870.00**
	11/14/07	<10.00	311.00	311.00	**845 D1**	0.35	3.60 D1	167 D1	205.00	44.90	7.33	334.00	**2,650.00**
	11/12/08	<5.00	640.00	640.00	**650.00**	0.32	2.20	170.00	160.00	37.00	9.90	290.00	**1,700.00**
	11/04/09	<5.00	670.00	670.00	**670.00**	0.56	2.60	150.00	110.00	27.00	7.40	300.00	**1,600.00**
	11/11/10	<5.00	217.00	217.00	**663.00**	0.51	2.58	125.00	65.90	15.60	4.42	317.00	**1,760.00**
	11/10/11	<5.00	171.00	171.00	**621.00**	0.78	2.02	134.00	78.80	18.70	4.71	389.00	**1,400.00**
	10/11/12	<5.00	169.00	169.00	**516.00**	1.12	2.60	100.00	48.70	11.30	4.45	359.00	**1,200.00**
	10/08/13	<6.00	199.00	199.00	**512.00**	**2.63**	2.47	100.00	47.70	9.93	3.64	410.00	**1,170.00**
	10/07/14	<4.00	186.00	186.00	**387.00**	**1.69**	2.54	102.00	37.10	7.78	3.17	276.00	962.00
	10/20/15	--	--	--	**328.00**	<4.00	--	83.30	--	--	--	--	819.00
	10/18/16	--	--	--	**440.00**	1.49	--	97.60	--	--	--	--	**1,150.00**
	10/25/17	--	--	--	**341.00**	**2.83**	--	93.40	--	--	--	--	960.00
	10/18/18	--	--	--	**366.00**	1.29	--	99.60	--	--	--	--	901.00
	06/20/19	--	--	--	**336.00**	--	--	--	--	--	--	--	**1,040.00**
	11/24/19				**321.00**			94.50					**824.00**
	04/20/20	--	--	--	**311 F1**	--	--	--	--	--	--	--	808.00
	06/25/21	--	--	--	**409.00**	--	--	--	--	--	--	--	**1,030.00**
	12/06/21	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	08/23/22	--	--	--	**424**	--	--	--	--	--	--	--	988
	12/21/22	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	07/20/23	--	--	--	**424**	--	--	101	--	--	--	--	**1,260**
	11/13/23	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	07/31/24	--	--	--	**422**	--	--	91.7	--	--	--	--	**1,200**
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	02/26/98	--	--	180.00	**6,600.00**	--	--	**910.00**	1,400.00	470.00	31.00	2,400.00	**12,000.00**
	02/14/01	<1.00	166.00	166.00	**7,700.00**	**1.80**	4.10	**910.00**	--	--	--	--	**18,000.00**
	05/17/02	<1.00	156.00	156.00	**4,040.00**	1.53	4.56	586.00	757.00	319.00	60.90	1,260.00	**8,340.00**
	10/23/02	--	--	--	**3,900.00**	--	--	94.80	--	--	--	--	422.00
	05/22/03	<1.00	158.00	158.00	**3,170.00**	<4.00	6.52	550.00	644.00	215.00	49.90	1,240.00	**7,860.00**
	11/25/03	<1.00	168.00	168.00	**5,120.00**	<4.00	6.77	**739.00**	978.00	365.00	54.90	1,680.00	**11,940.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-5	05/11/04	<1.00	160.00	160.00	**6,760.00**	<3.00	4.65	**1,030.00**	1,180.00	417.00	40.30	2,120.00	**20,380.00**
(Continued)	11/17/04	<1.00	172.00	172.00	**6,750.00**	<10.00	**16.60**	**786.00**	1,210.00	486.00	40.60	2,300.00	**11,980.00**
	11/17/05	<10.00	161.00	161.00	**2,140 D1**	0.79	0.16	334 D1	339.00	126.00	10.80	791.00	**7,120 N**
	11/14/06	<10.00	160.00	160.00	**2,000.00**	0.60	1.50	300.00	437.00	173.00	14.20	918.00	**4,420.00**
	11/14/07	<10.00	161.00	161.00	**5,790 D1**	0.37	4.01 D1	668 D1	812.00	240.00	23.30	1,850 D1	**16,300.00**
	11/06/08	<5.00	160.00	160.00	**4,900.00**	0.78	0.32	540.00	660.00	310.00	35.00	1,600.00	**9,700.00**
	11/03/09	<10.00	160.00	160.00	**5,100.00**	0.51	2.30	**710.00**	860.00	320.00	<13.00	1,800.00	**11,000.00**
	11/11/10	<5.00	176.00	176.00	**4,200.00**	0.16	2.37	554.00	687.00	250.00	17.30	1,400.00	**8,890.00**
	11/10/11	<5.00	172.00	172.00	**4,340.00**	0.24	0.55	411.00	944.00	326.00	19.70	1,780.00	**7,840.00**
	10/11/12	<5.00	164.00	164.00	**3,630.00**	0.38	2.26	474.00	671.00	239.00	17.00	1,360.00	**8,300.00**
	10/08/13	<6.00	176.00	176.00	**3,730.00**	0.37	1.56	425.00	659.00	253.00	15.40	1,440.00	**8,060.00**
	10/07/14	<4.00	172.00	172.00	**2,830.00**	<0.10	2.19	398.00	521.00	195.00	15.10	979.00	**5,280.00**
	10/21/15	--	--	--	**2,480.00**	<40.00	--	362.00	--	--	--	--	**5,510.00**
	10/18/16	--	--	--	**2,260.00**	<0.50	--	326.00	--	--	--	--	**5,380.00**
	10/25/17	--	--	--	**2,090.00**	<5.00	--	318.00	--	--	--	--	**3,780.00**
Dup	10/25/17	--	--	--	**2,010.00**	<5.00	--	300.00	--	--	--	--	**3,240.00**
	10/18/18	--	--	--	**1,890.00**	<0.10	--	323.00	--	--	--	--	**3,420.00**
	06/20/19	--	--	--	**1,700.00**	--	--	--	--	--	--	--	**4,280.00**
	11/23/19				**1,530.00**			250.00					**3,900.00**
	04/20/20	--	--	--	**1,870.00**	--	--	--	--	--	--	--	**4,150.00**
	10/12/20	--	--	--	**1,460.00**	--	--	--	--	--	--	--	**2,960.00**
	06/25/21	--	--	--	**1,330.00**	--	--	--	--	--	--	--	**2,590.00**
	12/06/21	--	--	--	**1,190.00**	--	--	--	--	--	--	--	**2,630.00**
	08/23/22	--	--	--	101	--	--	--	--	--	--	--	493
	12/21/22	--	--	--	**1,150**	--	--	--	--	--	--	--	**2,230**
	07/20/23	--	--	--	**1,050**	--	--	--	--	--	--	--	**2,440**
	11/13/23	--	--	--	**991**	--	--	--	--	--	--	--	**2,420**
	08/01/24	--	--	--	**941**	--	--	--	--	--	--	--	**2,260**
	11/12/24	--	--	--	**921**	--	--	--	--	--	--	--	**2,310**
MW-5A	02/26/98	--	--	170.00	190.00	--	--	180.00	107.00	23.00	3.50	117.00	740.00
	02/15/01	<1.00	164.00	164.00	140.00	1.20	2.10	130.00	90.20	27.90	8.70	74.60	670.00
	05/15/02	<1.00	182.00	182.00	53.50	<1.00	2.23	84.40	63.20	16.10	4.69	43.60	475.00
	10/23/02	--	--	--	50.00	--	--	**616.00**	--	--	--	--	**8,670.00**
	05/22/03	<1.00	158.00	158.00	32.50	<1.00	2.10	69.90	55.50	13.80	3.41	41.50	416.00
	11/25/03	<1.00	332.00	332.00	34.10	1.05	2.20	75.50	60.90	14.60	4.08	45.00	422.00
	05/11/04	<1.00	164.00	164.00	38.80	<1.00	2.25	75.80	60.90	15.00	3.40	43.20	484.00
	11/17/04	<1.00	152.00	152.00	39.60	1.37	2.66	74.30	58.10	13.60	3.83	48.50	430.00
	11/16/05	<10.00	191.00	191.00	40.20	0.82	2.10	75.2 D1	176.00	17.80	4.22	45.30	570 N
	11/14/06	<10.00	240.00	240.00	47.00	0.64	1.50	79.00	90.40	16.10	3.58	51.40	588.00
	11/14/07	<10.00	227.00	227.00	54.40	0.66	1.45	68.7 D1	73.70	14.00	<5.00	44.20	528.00
	11/06/08	<5.00	350.00	350.00	53.00	0.70	1.30	72.00	76.00	15.00	3.40	43.00	450.00
	11/03/09	<10.00	710.00	710.00	47.00	0.72	1.50	79.00	65.00	14.00	3.30	50.00	440.00
	11/11/10	<5.00	182.00	182.00	49.60	0.57	1.61	73.60	55.70	12.90	2.79	42.00	606.00
	11/10/11	<5.00	170.00	170.00	131.00	0.49	1.15	116.00	83.80	29.90	5.16	85.70	594.00
	10/11/12	<5.00	163.00	163.00	68.00	0.63	1.57	69.80	60.60	15.30	3.96	49.20	534.00
	10/08/13	<6.00	182.00	182.00	80.20	0.57	1.60	67.50	69.30	16.20	3.29	53.40	462.00
	10/07/14	<4.00	168.00	168.00	73.60	0.29	1.56	64.90	66.20	15.70	2.76	45.20	432.00
	10/21/15	--	--	--	84.90	<4.00	--	65.60	--	--	--	--	499.00
	10/18/16	--	--	--	101.00	<0.50	--	65.40	--	--	--	--	466.00
	10/25/17	--	--	--	99.60	1.14	--	59.30	--	--	--	--	537.00
	10/18/18	--	--	--	132.00	0.79	--	67.50	--	--	--	--	477.00
	06/20/19	--	--	--	118.00	--	--	--	--	--	--	--	650.00
	11/23/19				116.00			61.10					502.00
	04/20/20	--	--	--	120.00	--	--	--	--	--	--	--	571.00
	06/25/21	--	--	--	140.00	--	--	--	--	--	--	--	529.00
	12/06/21	--	--	--	**--**	**--**	--	**--**	--	--	--	--	**--**
	08/23/22	--	--	--	**15,000**	**--**	--	**--**	--	--	--	--	**18,500**
	12/21/22	--	--	--	**--**	**--**	--	**--**	--	--	--	--	**--**
	07/20/23	--	--	--	146	--	--	--	--	--	--	--	552
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
	08/01/24	--	--	--	161	--	--	--	--	--	--	--	609
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	02/26/98	--	--	200.00	**260.00**	--	--	400.00	180.00	44.00	6.20	205.00	**1,200.00**
	02/14/01	<1.00	158.00	158.00	59.00	**1.70**	2.20	99.00	67.50	22.10	7.67	52.30	470.00
	05/17/02	<1.00	162.00	162.00	37.80	**1.62**	2.14	99.30	63.10	19.60	5.12	48.60	427.00
	10/23/02	--	--	--	46.10	--	--	109.00	--	--	--	--	331.00
	05/22/03	<1.00	162.00	162.00	40.30	1.24	2.13	94.40	61.70	17.40	4.23	51.90	464.00
	11/25/03	<1.00	154.00	154.00	53.60	1.40	2.18	98.00	53.60	18.70	4.97	51.70	482.00
	05/11/04	<1.00	156.00	156.00	54.40	1.23	2.19	97.00	59.00	18.10	4.22	47.80	506.00
	11/16/04	<1.00	162.00	162.00	57.90	**1.64**	2.68	99.80	66.60	19.60	5.16	57.00	464.00
	11/17/05	<10.00	201.00	201.00	101.00	0.97	0.35	97.8 D1	103.00	20.20	4.10	59.10	730.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-6	11/15/06	<10.00	750.00	750.00	68.00	0.99	1.50	93.00	64.60	20.40	4.23	57.10	507.00
(Continued)	11/15/07	<10.00	284.00	284.00	162.00	**51.00**	1.35	96.3 D1	84.10	25.20	<5.00	62.10	630.00
	11/06/08	<5.00	220.00	220.00	84.00	1.20	1.20	95.00	67.00	21.00	4.30	53.00	490.00
	11/03/09	<10.00	190.00	190.00	81.00	1.20	1.40	100.00	66.00	20.00	4.50	59.00	550.00
	11/08/10	NS - Well Damaged											
	11/10/11	NS - Well Damaged											
	10/11/12	NS - Well Damaged											
	09/30/13	Well Plugged and Abandoned											
MW-6R	10/08/13	<6.00	225.00	225.00	110.00	**1.91**	<0.10	102.00	69.90	24.40	5.17	85.60	600.00
	10/07/14	<4.00	182.00	182.00	39.70	0.55	0.68	93.00	59.20	18.20	3.10	48.20	402.00
	10/21/15	--	--	--	40.70	<2.00	--	98.60	--	--	--	--	390.00
	10/18/16	--	--	--	42.30	0.63	--	105 J	--	--	--	--	442.00
	10/25/17	--	--	--	49.30	1.46	--	93.80	--	--	--	--	465.00
	10/18/18	--	--	--	69.10	1.05	--	107.00	--	--	--	--	442.00
	06/20/19	--	--	--	59.10	--	--	--	--	--	--	--	482.00
Dup	06/20/19	--	--	--	64.40	--	--	--	--	--	--	--	592.00
	11/23/19	--	--	--	69.40	--	--	95.20	--	--	--	--	384.00
	04/20/20	--	--	--	77.40	--	--	--	--	--	--	--	506.00
	06/25/21	--	--	--	71.70	--	--	--	--	--	--	--	487.00
	12/06/21	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	08/23/22	--	--	--	145	--	--	--	--	--	--	--	514
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	71.5	--	--	--	--	--	--	--	479
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
	08/01/24	--	--	--	76.9	--	--	--	--	--	--	--	480
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/14/98	--	--	230.00	**430.00**	--	--	340.00	214.00	66.00	13.00	165.00	**1,200.00**
	02/14/01	<1.00	150.00	150.00	**510.00**	**1.70**	2.40	150.00	--	--	--	--	**1,500.00**
	05/16/02	<1.00	150.00	150.00	75.70	1.59	2.27	97.40	68.60	23.20	6.63	54.30	501.00
	10/22/02	--	--	--	88.60	--	--	109.00	--	--	--	--	490.00
	05/22/03	<1.00	140.00	140.00	173.00	1.17	2.14	88.90	85.50	28.20	6.18	64.60	631.00
	11/26/03	<1.00	136.00	136.00	189.00	1.29	2.23	93.50	95.70	31.00	7.91	63.60	704.00
	05/13/04	<1.00	130.00	130.00	**267.00**	1.11	2.18	94.70	107.00	34.70	6.59	62.90	914.00
	11/16/04	<1.00	130.00	130.00	**367.00**	1.49	2.72	97.30	142.00	49.30	8.61	87.90	870.00
	11/17/05	<10.0	121.00	121.00	**456 D1**	0.53	0.28	106 D1	412.00	64.70	12.10	100.00	**1,440.00**
	11/15/06	<10.00	240.00	240.00	**550.00**	0.63	1.50	110.00	202.00	70.30	7.40	102.00	**2,100.00**
	11/15/07	<10.00	189.00	189.00	**458 D1**	1.20	1.39	176 D1	144.00	59.50	9.95	148.00	**1,880.00**
	11/12/08	<5.00	110.00	110.00	**650.00**	0.84	1.20	140.00	210.00	76.00	12.00	120.00	**1,600.00**
	11/04/09	<5.00	110.00	110.00	**1,100.00**	0.63	1.50	160.00	310.00	120.00	11.00	130.00	**2,800.00**
	11/10/10	<5.00	111.00	111.00	**1,310.00**	0.37	1.64	173.00	415.00	149.00	10.00	150.00	**3,130.00**
	11/10/11	<5.00	106.00	109.00	**1,710.00**	0.30	1.45	147.00	662.00	203.00	12.30	198.00	**3,660.00**
	10/11/12	<5.00	108.00	108.00	**2,020.00**	0.44	1.71	261.00	619.00	215.00	12.30	208.00	**5,580.00**
	10/08/13	<6.00	142.00	142.00	**2,840.00**	0.45	2.11	331.00	916.00	258.00	13.30	265.00	**7,530.00**
	10/07/14	<4.00	116.00	116.00	**2,190.00**	<0.10	2.03	317.00	682.00	238.00	12.20	227.00	**7,920.00**
	10/20/15	--	--	--	**1,420.00**	<20.00	--	231.00	--	--	--	--	**3,130.00**
	10/18/16	--	--	--	**2,920.00**	<0.50	--	385.00	--	--	--	--	**7,160.00**
	10/24/17	--	--	--	**1,670.00**	<2.00	--	249.00	--	--	--	--	**2,660.00**
	10/18/18	--	--	--	**4,000.00**	<0.10	--	482.00	--	--	--	--	**6,450.00**
	06/20/19	--	--	--	**4,210.00**	--	--	--	--	--	--	--	**15,500.00**
	11/24/19				**2,080.00**			272.00					**6,300.00**
	04/20/20	--	--	--	**4,570.00**	--	--	--	--	--	--	--	**14,100.00**
	10/12/20	--	--	--	**4,560.00**	--	--	--	--	--	--	--	**8,090.00**
	06/25/21	--	--	--	**4,140.00**	--	--	--	--	--	--	--	298.00
	12/07/21	--	--	--	**3,780.00**	--	--	--	--	--	--	--	**8,540.00**
	08/23/22	--	--	--	**5,170**	--	--	--	--	--	--	--	**10,800**
	12/21/22	--	--	--	**5,280**	--	--	--	--	--	--	--	**11,700**
	07/20/23	--	--	--	**5,150**	--	--	--	--	--	--	--	**14,500**
	11/14/23	--	--	--	**5,350**	--	--	--	--	--	--	--	**11,600**
	08/01/24	--	--	--	**5,080**	--	--	--	--	--	--	--	**14,800**
	11/13/24	--	--	--	**5,500**	--	--	--	--	--	--	--	**15,500**
MW-8	05/13/98	--	--	200.00	**270.00**	--	--	390.00	190.00	60.00	12.00	170.00	**1,200.00**
	02/14/01	<1.00	156.00	156.00	49.00	**1.80**	2.50	100.00	59.90	21.50	7.84	52.90	400.00
	05/16/02	<1.00	158.00	158.00	32.90	1.57	2.33	101.00	56.60	19.20	5.20	49.50	432.00
	10/22/02	--	--	--	40.80	--	--	104.00	--	--	--	--	392.00
	05/22/03	8.00	160.00	168.00	33.20	1.40	2.32	98.30	53.90	18.30	9.31	46.40	410.00
	11/26/03	<1.00	142.00	142.00	31.70	1.59	2.38	95.60	55.30	18.20	5.31	50.20	443.00
	05/12/04	<1.00	154.00	154.00	36.30	1.39	2.38	101.00	53.00	17.30	4.56	48.10	435.00
	11/16/04	<1.00	170.00	170.00	39.80	**1.94**	2.94	103.00	57.80	18.60	5.63	56.40	435.00
	05/17/05	4.00	152.00	156.00	41.00	**1.64**	2.94	105.00	61.00	18.60	5.78	47.30	434.00
	11/17/05	<10.00	171.00	171.00	113.00	1.10	<0.05	115 D1	83.40	21.70	5.74	102.00	750.00
	05/09/06	<10.00	160.00	160.00	210.00	0.89	1.40	200.00	72.70	33.30	7.12	125.00	896.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-8	11/14/06	<10.00	150.00	150.00	230.00	1.10	1.20	200.00	74.20	38.30	9.61	162.00	912.00
(Continued)	05/30/07	<10.00	141.00	141.00	62.00	1.20	1.74	120.00	54.10	19.10	<5.00	59.30	500.00
	11/15/07	<10.00	159.00	159.00	43.10	1.33	1.56	94.2 D1	52.10	17.20	<5.000	49.80	540.00
	05/15/08	<1.53	151.00	151.00	40.70	1.40	1.78	99.6 D1	51.70	16.80	4.10	54.8 D1	427.00
	11/12/08	<5.00	140.00	140.00	39.00	1.40	1.50	97.00	52.00	17.00	<2.6	46.00	350.00
	05/20/09	<5.00	140.00	140.00	39.00	1.30	1.60	110.00	50.00	17.00	4.30	49.00	430.00
	11/04/09	<5.00	150.00	150.00	41.00	1.40	1.70	110.00	46.00	16.00	3.30	47.00	450.00
	05/07/10	<5.00	<5.00	172.00	34.90	1.09	1.70	97.80	49.50	15.70	3.52	45.50	426.00
Dup	05/07/10	<5.00	<5.00	157.00	34.90	1.09	1.71	98.00	51.00	14.50	3.21	43.60	466.00
	11/12/10	<5.00	172.00	172.00	38.70	1.10	1.77	98.20	48.90	15.70	3.40	45.40	410.00
Dup	11/12/10	<5.00	160.00	160.00	38.70	1.10	1.76	98.30	50.50	15.30	3.44	44.80	398.00
	05/11/11	<5.00	170.00	170.00	185.00	1.20	1.60	93.00	73.00	28.40	5.68	165.00	692.00
	11/10/11	<5.00	161.00	161.00	36.90	1.06	1.41	87.40	57.10	17.00	3.46	48.60	406.00
	05/17/12	<5.00	173.00	173.00	37.90	1.09	1.59	92.90	53.30	16.40	3.83	56.70	440.00
	10/11/12	<5.00	158.00	158.00	39.90	1.29	1.83	103.00	49.00	16.60	4.30	49.00	444.00
	05/17/13	<5.00	167.00	167.00	38.30	1.37	1.70	106.00	55.30	17.50	3.67	45.90	416.00
	10/08/13	<6.00	182.00	182.00	39.50	1.17	1.78	96.20	57.40	19.70	4.35	57.60	446.00
	05/01/14	<10.00	165.00	165.00	40.60	1.12 J	1.81	106.00	55.10	19.90	3.82	52.90	436.00
	10/07/14	<4.00	176.00	176.00	8.14	0.16	1.07	30.50	40.00	4.98	7.81	35.10	259.00
	05/22/15	--	--	--	10.00	<2.00	--	30.10	--	--	--	--	252.00
	10/20/15	--	--	--	8.03	<2.00	--	32.50	--	--	--	--	146.00
	05/25/16	--	--	--	30.00	0.85	--	88.70	--	--	--	--	434.00
	10/18/16	--	--	--	4.28	<0.50	--	32.80	--	--	--	--	261.00
	05/11/17	--	--	--	9.10	<0.02	--	32.20	--	--	--	--	214.00
Dup	05/11/17	--	--	--	8.62	<0.02	--	32.20	--	--	--	--	182.00
	10/24/17	--	--	--	3.69	0.23	--	18.30	--	--	--	--	286.00
	05/22/18	--	--	--	5.22	0.32	--	21.90	--	--	--	--	282.00
	10/18/18	--	--	--	5.41	0.61	--	19.10	--	--	--	--	258.00
	06/20/19	--	--	--	NS	--	--	--	--	--	--	--	NS
	11/24/19				12.90			27.60					239.00
	04/20/20	--	--	--	49.00	--	--	--	--	--	--	--	305.00
	06/25/21	--	--	--	28.90	--	--	--	--	--	--	--	391.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/22	--	--	--	32.0	--	--	--	--	--	--	--	371
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	36.9	--	--	--	--	--	--	--	432
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
	08/02/24	--	--	--	34.9	--	--	--	--	--	--	--	419
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/14/98	--	--	190.00	**350.00**	--	--	470.00	207.00	61.00	12.00	200.00	**1,300.00**
	02/15/01	<1.00	156.00	156.00	35.00	**2.60**	2.40	110.00	60.40	19.80	7.47	47.00	430.00
	05/16/02	<1.00	160.00	160.00	31.70	**2.22**	2.28	99.40	60.80	17.60	5.32	50.10	440.00
	10/23/02	--	--	--	39.00	--	--	102.00	--	--	--	--	436.00
	05/22/03	<1.00	160.00	160.00	31.00	**1.75**	2.19	93.30	52.20	15.80	4.75	50.20	455.00
	11/26/03	<1.00	150.00	150.00	31.80	**1.99**	2.34	99.80	57.70	16.60	4.69	46.30	452.00
	05/12/04	<1.00	164.00	164.00	33.60	**1.79**	2.29	99.20	54.80	16.00	4.27	43.50	467.00
	11/16/04	8.00	154.00	162.00	**367.00**	1.49	2.72	97.30	63.20	17.80	5.59	55.50	433.00
	05/17/05	4.00	154.00	154.00	44.20	**2.43**	3.05	117.00	58.80	16.70	5.94	44.10	434.00
	11/17/05	<10.00	161.00	161.00	83.50	1.30	0.14	111 D1	149.00	26.20	7.43	80.40	790 N
	05/09/06	<10.00	170.00	170.00	37.00	**1.80**	1.80	99.00	52.70	15.00	3.21	45.50	428.00
	11/15/06	<10.00	150.00	150.00	210.00	1.10	1.20	190.00	70.50	35.80	8.64	152.00	905.00
	05/30/07	<10.00	153.00	153.00	35.00	**2.10**	1.69	110.00	52.20	15.80	<5.00	44.70	464.00
	11/14/07	<10.00	151.00	151.00	186.00	1.49	1.48	156 D1	74.10	39.40	8.73	141.00	808.00
	05/15/08	<1.53	174.00	174.00	42.50	**2.38**	1.72	105 D1	55.60	17.00	3.99	54.1 D1	467.00
	11/04/08	<5.00	160.00	160.00	39.00	**2.10**	1.40	98.00	54.00	16.00	3.70	47.00	440.00
	05/20/09	<5.00	320.00	320.00	69.00	**2.10**	1.50	120.00	58.00	19.00	4.60	58.00	520.00
	11/04/09	<5.00	160.00	160.00	42.00	**2.20**	1.60	110.00	50.00	15.00	3.00	43.00	460.00
	05/07/10	<5.00	<5.00	162.00	50.20	**2.02**	1.66	97.50	53.60	15.70	3.32	43.50	442.00
	11/09/10	<5.00	186.00	186.00	60.70	**1.97**	1.74	98.00	59.20	18.10	3.64	50.00	446.00
	05/11/11	<5.00	160.00	160.00	80.30	**1.71**	1.72	75.70	73.90	25.80	4.61	67.90	518.00
	11/10/11	<5.00	151.00	151.00	138.00	**1.66**	1.38	107.00	82.70	26.90	4.34	65.40	582.00
	05/16/12	<5.00	162.00	162.00	137.00	**1.75**	1.61	93.50	83.80	23.20	4.39	60.30	584.00
	10/11/12	<5.00	147.00	147.00	148.00	**1.90**	1.71	98.70	80.50	25.80	4.94	59.80	644.00
	05/17/13	<5.00	144.00	144.00	246.00	**1.86**	1.61	99.30	107.00	30.20	4.43	60.20	**1,010.00**
	10/08/13	<6.00	164.00	164.00	150.00	**1.88**	1.81	99.80	90.00	25.20	4.62	60.80	620.00
	05/02/14	<10.00	143.00	143.00	**382.00**	1.56	1.77	103.00	132.00	35.70	5.74	73.70	906.00
	10/07/14	<4.00	151.00	151.00	**292.00**	0.89	1.33	98.10	136.00	41.00	4.65	67.40	**1,110.00**
	05/22/15	--	--	--	**307.00**	<8.00	--	87.70	--	--	--	--	**1,170.00**
	10/20/15	--	--	--	202.00	<4.00	--	93.70	--	--	--	--	593.00
	05/25/16	--	--	--	**404.00**	**1.61**	--	108.00	--	--	--	--	**1,430.00**
Dup	05/26/16	--	--	--	**418.00**	1.60	--	111.00	--	--	--	--	**1,430.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-9	10/18/16	--	--	--	**445.00**	1.34	--	115.00	--	--	--	--	**1,490.00**
(Continued)	05/11/17	--	--	--	**481.00**	<0.22	--	118.00	--	--	--	--	**1,090.00**
	10/24/17	--	--	--	**387.00**	**2.42**	--	102.00	--	--	--	--	**1,020.00**
	05/22/18	--	--	--	**460.00**	1.28	--	119.00	--	--	--	--	**1,010.00**
	10/18/18	--	--	--	**381.00**	1.41	--	117.00	--	--	--	--	903.00
	06/20/19	--	--	--	**621.00**	--	--	--	--	--	--	--	**2,930.00**
	11/24/19	--	--	--	**337.00**	--	--	80.60	--	--	--	--	**1,170.00**
	04/20/20	--	--	--	**1,070.00**	--	--	--	--	--	--	--	**3,090.00**
	10/12/20	--	--	--	**945.00**	--	--	--	--	--	--	--	**1,860.00**
	06/25/21	--	--	--	**952.00**	--	--	--	--	--	--	--	**1,970.00**
	12/07/21	--	--	--	**856.00**	--	--	--	--	--	--	--	**1,960.00**
	08/24/22	--	--	--	**1,040**	--	--	--	--	--	--	--	**2,320**
	12/21/22	--	--	--	**1,040**	--	--	--	--	--	--	--	**2,530**
	07/21/23	--	--	--	**1,050**	--	--	--	--	--	--	--	**2,620**
	11/14/23	--	--	--	**1,100**	--	--	--	--	--	--	--	**2,930**
	08/01/24	--	--	--	**1,010**	--	--	--	--	--	--	--	**3,060**
	11/13/24	--	--	--	**1,040**	--	--	--	--	--	--	--	**3,300**
MW-9A	05/14/98	--	--	280.00	**600.00**	--	--	**770.00**	338.00	96.00	12.00	334.00	**2,200.00**
	02/15/01	<1.00	142.00	142.00	85.00	1.40	2.20	71.00	71.60	19.20	6.94	46.00	400.00
	05/15/02	<1.00	136.00	136.00	148.00	<1.00	2.18	65.30	62.90	16.10	4.62	46.80	445.00
	10/23/02	--	--	--	168.00	--	--	75.50	--	--	--	--	651.00
	05/22/03	<1.00	126.00	126.00	207.00	<1.00	2.09	62.10	102.00	25.20	4.80	55.70	672.00
	11/26/03	<1.00	118.00	118.00	216.00	1.14	2.26	62.70	107.00	25.10	5.31	53.20	648.00
	05/12/04	<1.00	122.00	122.00	242.00	<1.00	2.10	64.70	105.00	26.20	5.11	26.20	950.00
	11/16/04	<1.00	114.00	114.00	**296.00**	1.24	2.74	67.50	130.00	33.10	6.24	70.30	826.00
	05/17/05	<1.00	112.00	112.00	**354.00**	1.04	2.85	77.10	131.00	31.70	6.39	60.50	828.00
	11/17/05	<10.00	121.00	121.00	**310 D1**	0.82	0.31	74.7 D1	337.00	41.40	8.08	74.50	**1,520 N**
	05/09/06	<10.00	670.00	670.00	**270.00**	0.67	1.60	78.00	111.00	27.10	3.88	58.70	992.00
	11/15/06	<10.00	1,600.00	1,600.00	**290.00**	0.62	1.60	72.00	126.00	33.40	4.74	68.40	**1,280.00**
	05/30/07	<10.00	586.00	586.00	**400.00**	0.70	1.69	83.00	153.00	36.90	<5.00	71.80	**1,450.00**
	11/14/07	<10.00	605.00	605.00	**285 D1**	0.62	1.52	64.7 D1	153.00	35.40	5.03	70.70	**1,430.00**
	05/15/08	<1.53	738.00	738.00	**380 D1**	0.45	1.62	86.8 D1	146.00	35.50	5.45	77.2 D1	**1,390.00**
	11/04/08	<5.00	370.00	370.00	**330.00**	<1.00	1.20	84.00	130.00	32.00	5.10	66.00	1,000.00
	05/20/09	<5.00	600.00	600.00	**480.00**	0.49	1.50	86.00	170.00	43.00	6.40	76.00	**1,600.00**
	11/04/09	<5.00	110.00	110.00	**430.00**	0.49	1.60	82.00	160.00	41.00	5.30	71.00	**1,500.00**
	05/07/10	<5.00	<5.00	121.00	**510.00**	0.21	1.62	80.50	188.00	44.90	4.90	73.60	**1,680.00**
	11/09/10	<5.00	115.00	115.00	**529.00**	0.33	1.72	86.00	159.00	44.30	5.00	76.10	**1,660.00**
	05/11/11	<5.00	146.00	146.00	**587.00**	1.18	1.90	415.00	166.00	80.60	11.30	211.00	**1,850.00**
	11/10/11	<5.00	115.00	115.00	**841.00**	0.19	1.56	125.00	280.00	84.80	7.51	117.00	**2,160.00**
	05/16/12	<5.00	135.00	135.00	**958.00**	0.37	1.74	143.00	249.00	62.60	6.50	97.70	**3,450.00**
Dup	05/16/12	<5.00	128.00	128.00	**882.00**	0.31	1.70	134.00	270.00	65.70	6.72	92.30	**3,050.00**
	10/11/12	<5.00	125.00	125.00	**628.00**	0.37	1.70	121.00	235.00	60.40	6.72	94.00	**1,810.00**
	05/17/13	<5.00	137.00	137.00	**754.00**	0.34	1.67	145.00	224.00	53.90	5.49	86.80	**1,930.00**
	10/08/13	<6.00	153.00	153.00	**534.00**	0.37	1.69	118.00	185.00	43.10	5.23	81.30	**1,210.00**
	10/07/14	Not Sampled											
	10/20/15	--	--	--	232.00	<4.00	--	95.40	--	--	--	--	599.00
	10/18/16	--	--	--	**337.00**	<0.50	--	113.00	--	--	--	--	**1,250.00**
	10/24/17	--	--	--	206.00	<0.50	--	96.60	--	--	--	--	681.00
	10/18/18	--	--	--	**276.00**	0.60	--	119.00	--	--	--	--	816.00
	06/20/19	--	--	--	**268.00**	--	--	--	--	--	--	--	**1,220.00**
	11/24/19				231.00			83.20					838.00
	04/20/20	--	--	--	**352.00**	--	--	--	--	--	--	--	940.00
	06/25/21	--	--	--	**307.00**	--	--	--	--	--	--	--	857.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	**--**
	08/24/22	--	--	--	**239**	--	--	--	--	--	--	--	773
	12/21/22	--	--	--	**--**	--	--	--	--	--	--	--	--
	07/21/23	--	--	--	**260**	--	--	--	--	--	--	--	753 B
	11/13/23	--	--	--	**--**	--	--	--	--	--	--	--	--
	08/01/24	--	--	--	**737**	--	--	--	--	--	--	--	**1,030**
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	05/14/98	--	--	240.00	**360**	--	--	450.00	211.00	62.00	11.00	190.00	**1,400.00**
	02/15/01	<1.00	140.00	140.00	190	**2.00**	2.30	97.00	108.00	32.30	8.20	61.00	660.00
	05/17/02	<1.00	152.00	152.00	204	**1.93**	2.19	99.10	109.00	31.70	7.60	62.40	713.00
	10/22/02	--	--	--	213	--	--	108.00	--	--	--	--	758.00
	05/22/03	<1.00	152.00	152.00	213	1.45	2.17	96.60	109.00	29.90	8.65	74.20	764.00
	11/26/03	<1.00	152.00	152.00	220	1.54	2.26	103.00	120.00	35.70	6.96	64.00	752.00
	05/13/04	<1.00	158.00	158.00	232	1.39	2.23	102.00	114.00	31.60	5.95	57.20	802.00
	11/17/04	<1.00	170.00	170.00	245	**1.73**	2.78	104.00	121.00	35.70	7.07	70.30	764.00
	05/17/05	<1.00	150.00	150.00	233	**1.77**	2.80	106.00	113.00	32.30	6.83	60.20	776.00
	11/17/05	<10.00	151.00	151.00	205 D1	1.20	0.26	111 D1	482.00	47.40	13.10	82.40	970 N
	05/09/06	<10.00	190.00	190.00	180	1.40	1.60	98.00	93.30	27.10	4.31	60.40	724.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-10	11/16/06	<10.00	320.00	320.00	190	1.20	1.60	92.00	101.00	30.00	4.75	64.10	900.00
(Continued)	05/30/07	<10.00	340.00	340.00	200	1.40	1.68	110.00	101.00	28.60	<5.00	62.40	820.00
	11/15/07	<10.00	189.00	189.00	**251 D1**	1.44	1.44	152 D1	104.00	33.40	6.01	84.70	**1,010.00**
	05/15/08	<1.53	374.00	374.00	**342 D1**	1.47	1.28	257 D1	106.00	52.90	11.70	165 D1	**1,140.00**
	11/06/08	<5.00	150.00	150.00	210	1.50	1.30	89.00	110.00	32.00	5.40	64.00	730.00
	05/20/09	<5.00	240.00	240.00	**270**	1.30	1.50	120.00	110.00	35.00	6.20	72.00	960.00
	11/04/09	<5.00	150.00	150.00	240	1.50	1.30	130.00	100.00	35.00	5.40	78.00	1,000.00
	05/07/10	<5.00	<5.00	157.00	236	1.18	1.62	106.00	111.00	30.70	4.59	60.30	940.00
	11/10/10	<5.00	166.00	166.00	**280**	1.16	1.61	112.00	98.40	36.90	5.63	81.00	812.00
	05/11/11	<5.00	157.00	157.00	**274**	1.11	1.99	87.20	117.00	32.20	5.63	85.00	930.00
	11/15/11	<5.00	150.00	150.00	**266**	1.03	6.93	94.90	128.00	32.30	4.58	62.80	**1,450.00**
	05/16/12	<5.00	163.00	163.00	**284**	1.12	1.58	99.90	132.00	36.80	5.22	72.90	**1,120.00**
	10/11/12	<5.00	151.00	151.00	**255**	1.32	1.75	98.70	113.00	34.30	5.68	67.60	**1,010.00**
	05/17/13	<5.00	154.00	154.00	**299**	1.34	1.61	108.00	117.00	33.70	4.57	64.60	**1,180.00**
	10/08/13	<6.00	165.00	165.00	**324**	1.14	1.62	103.00	154.00	41.60	5.36	78.10	**1,240.00**
	05/01/14	<10.00	156.00	156.00	**298**	1.05 J	1.58	111.00	135.00	41.60	5.30	75.50	**1,050.00**
Dup	05/01/14	<10.00	158.00	158.00	**301**	<0.10 J	1.66	112.00	134.00	42.50	5.29	79.50	**1,080.00**
	10/07/14	<4.00	163.00	163.00	249	0.71	1.64	108.00	127.00	36.80	4.91	67.20	**1,050.00**
	05/22/15	--	--	--	**298**	<8.00	--	102.00	--	--	--	--	975.00
	10/20/15	--	--	--	250	<4.00	--	108.00	--	--	--	--	823.00
	05/25/16	--	--	--	**307**	1.44	--	107.00	--	--	--	--	**1,080.00**
	10/18/16	--	--	--	**330**	0.86	--	103.00	--	--	--	--	**1,350.00**
	05/11/17	--	--	--	**353**	<0.22	--	112.00	--	--	--	--	**1,080.00**
	10/24/17	--	--	--	240	1.60	--	97.00	--	--	--	--	742.00
	05/22/18	--	--	--	**346**	0.97	--	113.00	--	--	--	--	**1,070.00**
	10/18/18	--	--	--	**351**	1.10	--	118.00	--	--	--	--	892.00
	06/20/19	--	--	--	NS	--	--	--	--	--	--	--	NS
	11/24/19				230			78.00					826.00
	04/20/20	--	--	--	372	--	--	--	--	--	--	--	**1,050.00**
	10/12/20	--	--	--	338	--	--	--	--	--	--	--	986.00
	06/25/21	--	--	--	**392**	--	--	--	--	--	--	--	**1,010.00**
	12/07/21	--	--	--	**339**	--	--	--	--	--	--	--	**1,020.00**
	08/23/22	--	--	--	***376***	--	--	--	--	--	--	--	***1,010***
	12/21/22	--	--	--	***406***	--	--	--	--	--	--	--	***1,120 J3***
Dup	12/21/22	--	--	--	218	--	--	--	--	--	--	--	*828*
	07/20/23	--	--	--	**364**	--	--	--	--	--	--	--	**1,210**
	11/14/23	--	--	--	**364**	--	--	--	--	--	--	--	**1,180**
	08/01/24	--	--	--	**344**	--	--	--	--	--	--	--	**1,180**
	11/13/24	--	--	--	**336**	--	--	--	--	--	--	--	**1,090**
MW-11	01/22/99	30.00	<1.00	30.00	46.00	**2.30**	4.20	94.00	33.00	7.00	9.10	58.00	370.00
	02/15/01	<1.00	156.00	156.00	37.00	**2.40**	2.40	120.00	64.00	19.10	7.83	50.10	360.00
	05/16/02	<1.00	160.00	160.00	31.90	**2.13**	2.33	98.80	63.50	17.20	4.83	47.00	444.00
	10/23/02	--	--	--	37.20	--	--	102.00	--	--	--	--	447.00
	05/22/03	12.00	154.00	166.00	32.30	**1.74**	2.28	96.70	62.30	0.00	4.63	47.60	437.00
	11/26/03	<1.00	160.00	160.00	32.40	**1.83**	2.23	96.40	59.20	16.60	4.67	48.60	448.00
	05/12/04	<1.00	164.00	164.00	34.60	**1.71**	2.38	97.70	54.80	15.70	4.28	46.20	457.00
	11/16/04	<1.00	160.00	160.00	39.00	**2.17**	2.81	100.00	65.20	16.80	5.14	54.30	454.00
	05/17/05	4.00	158.00	162.00	43.10	**1.87**	2.82	94.60	68.40	16.90	6.45	44.00	429.00
	11/17/05	<10.0	161.00	161.00	58.10	1.50	2.10	91.3 D1	75.00	17.70	4.55	64.70	700 N
	05/09/06	<10.00	180.00	180.00	37.00	**1.80**	1.70	100.00	54.10	16.20	3.26	46.90	456.00
	11/14/06	<10.00	170.00	170.00	34.00	**1.80**	1.80	110.00	58.00	18.20	4.13	53.40	532.00
	05/30/07	<10.00	142.00	142.00	36.00	**1.90**	1.79	120.00	54.00	16.70	<5.00	50.80	456.00
	11/14/07	<10.00	189.00	189.00	42.30	**1.98**	1.54	95.6 D1	57.20	17.40	<5.000	52.40	452.00
	05/15/08	<1.53	177.00	177.00	72.4 D1	**1.86**	1.71	141.00	58.00	19.40	4.93	66.5 D1	544.00
	11/04/08	<5.00	170.00	170.00	49.00	1.50	1.30	90.00	60.00	16.00	3.60	47.00	440.00
	05/20/09	<5.00	360.00	360.00	40.00	**2.20**	1.70	130.00	51.00	17.00	4.50	53.00	450.00
	11/04/09	<5.00	150.00	150.00	43.00	1.60	1.60	100.00	52.00	15.00	2.90	42.00	470.00
	05/07/10	<5.00	<5.00	167.00	36.50	**1.97**	1.78	117.00	49.70	14.90	3.42	44.70	494.00
	11/09/10	<5.00	269.00	269.00	52.50	1.45	1.79	95.40	61.00	16.70	3.56	50.00	438.00
	05/11/11	<5.00	161.00	161.00	133.00	1.43	2.08	140.00	78.10	37.00	6.32	103.00	664.00
Dup	05/11/11	<5.00	161.00	161.00	130.00	1.44	2.01	137.00	77.40	37.00	6.29	104.00	706.00
	11/10/11	<5.00	162.00	162.00	38.80	**1.86**	1.49	97.10	66.20	17.90	3.62	52.30	420.00
	05/17/12	<5.00	176.00	176.00	45.80	1.29	1.62	88.50	63.60	16.30	3.66	53.40	456.00
	10/11/12	<5.00	166.00	166.00	44.60	1.49	1.74	95.10	55.80	15.80	3.80	49.30	440.00
	05/17/13	<5.00	171.00	171.00	43.60	**1.87**	1.67	106.00	57.70	14.80	3.18	42.90	428.00
	10/08/13	<6.00	178.00	178.00	45.20	1.55	1.74	95.50	60.90	16.10	3.33	52.00	450.00
	05/01/14	<10.00	173.00	173.00	63.30	<0.10	2.06	93.30	64.40	17.60	3.38	51.50	434.00
	10/07/14	<4.00	176.00	176.00	34.70	1.10	1.71	101.00	59.20	16.70	3.06	46.50	399.00
	05/22/15	--	--	--	40.40	<4.00	--	87.20	--	--	--	--	428.00
	10/20/15	--	--	--	37.60	<2.00	--	89.30	--	--	--	--	356.00
	05/25/16	--	--	--	34.30	**1.87**	--	103.00	--	--	--	--	475.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-11	10/18/16	--	--	--	39.30	0.87	--	96.40	--	--	--	--	418.00
(Continued)	05/11/17	--	--	--	35.10	<0.11	--	110.00	--	--	--	--	416.00
	10/24/17	--	--	--	35.10	**1.87**	--	95.30	--	--	--	--	438.00
	05/22/18	--	--	--	34.60	1.58	--	110.00	--	--	--	--	421.00
Dup	05/22/18	--	--	--	34.50	**1.64**	--	110.00	--	--	--	--	415.00
	10/18/18	--	--	--	36.90	**1.69**	--	114.00	--	--	--	--	413.00
	06/20/19	--	--	--	34.40	--	--	--	--	--	--	--	407.00
	11/24/19				45.80			113.00					364.00
	04/20/20	--	--	--	29.00	--	--	--	--	--	--	--	394.00
	06/25/21	--	--	--	37.30	--	--	--	--	--	--	--	431.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/22	--	--	--	35.70	--	--	--	--	--	--	--	410.00
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/21/23	--	--	--	35.0	--	--	--	--	--	--	--	410 B
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
	08/02/24	--	--	--	35.1	--	--	--	--	--	--	--	417
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
MW-12*	05/15/02	<1.00	160.00	160.00	58.30	1.09	2.44	91.30	53.50	15.90	5.52	50.30	462.00
	10/23/02	--	--	--	65.00	--	--	102.00	--	--	--	--	477.00
	05/22/03	<1.00	148.00	148.00	91.10	1.04	2.30	87.70	74.20	21.00	4.89	57.60	516.00
	11/25/03	<1.00	142.00	142.00	93.10	1.18	2.36	90.90	74.70	20.90	5.41	52.50	548.00
	05/12/04	<1.00	458.00	458.00	72.90	1.04	2.35	86.70	58.10	19.00	5.92	51.80	489.00
	11/15/04	<1.00	184.00	184.00	79.80	1.39	2.83	88.80	59.70	21.50	16.50	77.40	512.00
	11/17/05	<10.00	151.00	151.00	109.00	0.93	0.12	94.6 D1	193.00	26.60	13.40	87.50	700.00
	11/16/06	<10.00	270.00	270.00	120.00	0.71	1.70	84.00	82.30	27.00	4.82	62.20	620.00
	11/16/07	<10.00	170.00	170.00	**258.00**	1.21	1.55	191 D1	77.20	42.70	11.00	154.00	**1,270.00**
	11/06/08	<5.00	130.00	130.00	110.00	0.89	1.40	79.00	61.00	20.00	4.50	52.00	460.00
	11/03/09	<25.00	2,000.00	2,000.00	120.00	0.87	1.60	98.00	68.00	24.00	6.00	79.00	600.00
	11/09/10	<5.00	144.00	144.00	211.00	0.57	1.76	89.80	75.60	27.80	4.60	60.60	712.00
	11/10/11	<5.00	134.00	134.00	179.00	0.46	1.37	92.80	93.80	27.80	4.53	64.00	594.00
	10/11/12	<5.00	145.00	145.00	179.00	0.71	0.79	86.50	80.40	25.40	5.44	62.90	724.00
	10/08/13	<6.00	160.00	160.00	246.00	0.62	1.64	84.50	110.00	30.40	4.92	67.80	944.00
	10/07/14	<4.00	145.00	145.00	200.00	0.29	1.70	86.80	93.10	29.30	5.06	65.00	765.00
	10/21/15	--	--	--	165.00	<4.00	--	72.60	--	--	--	--	487.00
	10/18/16	--	--	--	**270.00**	<0.50	--	95.00	--	--	--	--	888.00
	10/24/17	--	--	--	150.00	<0.50	--	64.90	--	--	--	--	579.00
Dup	10/24/17	--	--	--	149.00	<0.50	--	64.80	--	--	--	--	565.00
	10/18/18	--	--	--	**290.00**	0.74	--	106.00	--	--	--	--	790.00
	06/20/19	--	--	--	**254.00**	--	--	--	--	--	--	--	580.00
	04/20/20	--	--	--	245.00	--	--	--	--	--	--	--	902.00
	10/12/20	--	--	--	**254.00**	--	--	--	--	--	--	--	732.00
	06/25/21	--	--	--	**461.00**	--	--	--	--	--	--	--	984.00
	12/06/21	--	--	--	**361.00**	--	--	--	--	--	--	--	**1,130.00**
	08/24/22	--	--	--	**489**	--	--	--	--	--	--	--	**1,040**
	12/21/22	--	--	--	**482**	--	--	--	--	--	--	--	**1,280**
	07/21/23	--	--	--	**469**	--	--	--	--	--	--	--	**1,300**
	11/13/23	--	--	--	**447**	--	--	--	--	--	--	--	**1,470**
	08/02/24	--	--	--	**404**	--	--	--	--	--	--	--	**1,600**
	11/12/24	--	--	--	**504**	--	--	--	--	--	--	--	**1,560**
MW-13*	05/13/02	<1.00	100.00	100.00	**517.00**	<1.00	1.61	437.00	116.00	76.00	19.40	269.00	**1,596.00**
	10/23/02	--	--	--	**549.00**	--	--	370.00	--	--	--	--	**1,740.00**
	05/22/03	<1.00	186.00	186.00	**944.00**	<2.00	2.33	361.00	289.00	101.00	15.30	458.00	**3,060.00**
	11/25/03	<1.00	226.00	226.00	**1,460.00**	<2.00	2.22	372.00	369.00	117.00	20.00	478.00	**3,445.00**
	05/12/04	<1.00	234.00	234.00	**1,550.00**	<4.00	4.58	369.00	384.00	114.00	18.60	485.00	**4,240.00**
	11/15/04	<1.00	226.00	226.00	**1,870.00**	<2.00	4.92	384.00	510.00	164.00	16.50	627.00	**3,600.00**
	11/17/05	<10.00	201.00	201.00	**722.00**	1.00	2.50	206 D1	786.00	91.60	19.70	276.00	**2,350.00**
	11/16/06	<10.00	1,500.00	1,500.00	**2,000.00**	<0.50 N	2.70	500 N	529.00	176.00	14.20	493.00	**5,060.00**
	11/16/07	<10.00	236.00	236.00	**2,000.00**	0.33	3.05 D1	312 D1	361.00	105.00	11.40	553 D1	**6,320.00**
	11/06/08	<5.00	180.00	180.00	**970.00**	0.98	1.80	280.00	240.00	96.00	17.00	370.00	**2,400.00**
	11/03/09	<25.00	15,000.00	15,000.00	**2,200.00**	<0.50	2.60	440.00	490.00	180.00	22.00	490.00	**5,600.00**
	11/09/10	<5.00	267.00	267.00	**1,680.00**	0.22	2.82	405.00	400.00	120.00	10.40	540.00	**4,270.00**
	11/10/11	<5.00	206.00	206.00	**2,110.00**	0.18	<0.50	273.00	690.00	223.00	13.20	472.00	**4,870.00**
	10/11/12	<5.00	204.00	204.00	**2,360.00**	0.31	2.70	422.00	706.00	228.00	14.40	423.00	**6,290.00**
	10/08/13	<6.00	1,780.00	1,780.00	**2,710.00**	0.30	2.59	448.00	768.00	225.00	14.00	457.00	**7,320.00**
	10/07/14	<4.00	267.00	267.00	**1,430.00**	<0.10	1.91	379.00	355.00	109.00	11.30	612.00	**3,940.00**
	10/21/15	--	--	--	**1,400.00**	<40.0	--	353.00	--	--	--	--	**3,260.00**
	10/18/16	--	--	--	**1,940.00**	<0.50	--	440.00	--	--	--	--	**5,310.00**
	Well Plugged and Abandoned on 7/11/2017												
MW-14	10/08/13	<6.00	267.00	267.00	162.00	**3.69**	<0.10	127.00	74.40	32.30	8.42	145.00	854.00
Dup	10/08/13	<6.00	271.00	271.00	166.00	**3.74**	<0.10	130.00	60.70	26.30	7.97	145.00	848.00
	05/01/14	<10.00	199.00	199.00	64.00	1.19 J	<0.10	84.90	60.80	21.70	3.82	59.80	468.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	10/07/14	<4.00	227.00	2,227.00	95.20	0.79	<0.023	22.90	71.30	24.90	3.99	61.80	460.00
Dup	10/07/14	<4.00	194.00	194.00	55.70	1.36	<0.023	88.80	59.30	19.10	3.21	49.50	490.00
	05/22/15	--	--	--	77.80	<4.00	--	45.40	--	--	--	--	468.00
Dup	05/22/15	--	--	--	77.40	<4.00	--	49.00	--	--	--	--	470.00
	10/20/15	--	--	--	29.1 J	<2.00	--	53.5 J	--	--	--	--	294.00
Dup	10/21/15	--	--	--	58.9 J	<2.00	--	101 J	--	--	--	--	407.00
	05/25/16	--	--	--	79.00	1.37	--	19.90	--	--	--	--	552.00
	10/18/16	--	--	--	51.80	1.07	--	104.00	--	--	--	--	422.00
Dup	10/18/16	--	--	--	61.20	1.25	--	108 J	--	--	--	--	459.00
	05/11/17	--	--	--	70.50	<0.11	--	17.70	--	--	--	--	412.00
	10/24/17	--	--	--	57.40	**1.77**	--	42.20	--	--	--	--	423.00
	05/22/18	--	--	--	54.90	1.20	--	47.80	--	--	--	--	390.00
	10/18/18	--	--	--	57.20	1.35	--	47.20	--	--	--	--	401.00
	06/20/19	--	--	--	42.10	--	--	--	--	--	--	--	481.00
	11/24/19	--	--	--	37.10	--	--	94.50	--	--	--	--	328.00
	04/20/20	--	--	--	46.00	--	--	--	--	--	--	--	400.00
	06/25/21	--	--	--	42.30	--	--	--	--	--	--	--	429.00
	12/06/21	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	08/23/22	--	--	--	48.00	--	--	--	--	--	--	--	**1,090.00**
	12/21/22	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	07/20/23	--	--	--	57.5	--	--	--	--	--	--	--	471
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
	07/31/24	--	--	--	61.4	--	--	--	--	--	--	--	473
	11/12/24	--	--	--	--	--	--	--	--	--	--	--	--
RW-1	05/27/99	0.00	224.00	224.00	**8,700.00**	**2.70**	7.00	**840.00**	679.00	521.00	34.00	3,290.00	**14,000.00**
	05/22/03	<1.00	190.00	190.00	**2,410.00**	**2.46**	4.23	345.00	162.00	145.00	25.40	1,180.00	**5,260.00**
	11/26/03	<1.00	184.00	184.00	**1,990.00**	<4.00	**20.00**	324.00	199.00	147.00	38.60	1,080.00	**5,050.00**
	05/11/04	<1.00	148.00	148.00	**491.00**	1.32	2.65	109.00	66.30	23.40	11.20	252.00	**1,224.00**
	11/17/04	<1.00	160.00	160.00	**633.00**	**1.65**	3.23	121.00	89.70	43.50	18.00	382.00	**1,314.00**
	11/17/05	<10.00	221.00	221.00	**895.00**	1.00	1.40	166 D1	122.00	70.90	8.40	493.00	**2,380.00**
	11/16/06	<10.00	380.00	380.00	**11,000.00**	<0.50	<20.00 HC	**1,100.00**	539.00	694.00	43.30	5,580.00	**22,000.00**
	11/15/07	<10.00	359.00	359.00	**2,380.00**	1.26	3.74 D1	252 D1	141.00	137.00	16.00	1,100 D1	**5,280.00**
Dup	11/15/07	<10.00	208.00	208.00	**2,620.00**	1.24	3.85 D1	316 D1	136.00	133.00	15.50	1,040 D1	**5,360.00**
	11/12/08	<5.00	210.00	210.00	**370.00**	0.82	1.90	97.00	66.00	34.00	5.00	190.00	920.00
	11/04/09	<5.00	170.00	170.00	**1,700.00**	1.10	2.60	250.00	110.00	120.00	22.00	750.00	**3,800.00**
	11/11/10	<5.00	192.00	192.00	**1,340.00**	0.72	2.72	204.00	95.50	104.00	12.60	792.00	**2,830.00**
	11/10/11	<5.00	396.00	396.00	**14,000.00**	**3.32**	9.16	**1,540.00**	942.00	1,260.00	44.60	8,720.00	**32,200.00**
	10/11/12	<5.00	263.00	263.00	**6,530.00**	**2.19**	4.75	**625.00**	314.00	445.00	28.00	3,490.00	**10,100.00**
Dup	10/11/12	<5.00	286.00	286.00	**2,440.00**	0.31	1.23	194.00	128.00	156.00	18.60	1,260.00	**17000****
	10/08/13	<6.00	285.00	285.00	**6,050.00**	0.95	4.29	546.00	760.00	919.00	39.00	6,370.00	**11,200.00**
Dup	10/08/13	<6.00	216.00	216.00	**10,500.00**	1.27	5.98	**926.00**	490.00	581.00	31.40	4,170.00	**1870****
	10/07/14	<4.00	207.00	207.00	**2,240.00**	1.36	3.62	338.00	69.60	106.00	24.00	1,130.00	**2,760.00**
Dup	10/07/14	<4.00	192.00	192.00	**2,570.00**	**2.51**	3.70	363.00	82.30	125.00	26.80	1,350.00	**1970****
	10/21/15	--	--	--	**9,110.00**	<80.00	--	**953 J**	--	--	--	--	**15,300.00**
Dup	10/20/15	--	--	--	**10,200.00**	<200.00	--	**1,120 J**	--	--	--	--	**21,600.00**
	12/15/15	--	--	--	**1,130.00**	--	--	--	--	--	--	--	**2,290.00**
	12/16/15	--	--	--	**1,190.00**	--	--	--	--	--	--	--	**2,580.00**
	12/17/15	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,260.00**
	12/18/15	--	--	--	**988.00**	--	--	--	--	--	--	--	**2,350.00**
	01/04/16	--	--	--	**1,200.00**	--	--	--	--	--	--	--	**2,280.00**
	01/05/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,190.00**
	01/06/16	--	--	--	**1,120.00**	--	--	--	--	--	--	--	**2,240.00**
	01/07/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,200.00**
	01/08/16	--	--	--	**1,310.00**	--	--	--	--	--	--	--	**2,370.00**
	01/11/16	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,210.00**
	01/12/16	--	--	--	**1,520.00**	--	--	--	--	--	--	--	**2,850.00**
	10/18/16	--	--	--	**277.00**	<0.50	--	87.50	--	--	--	--	715.00
Dup	10/18/16	--	--	--	**316.00**	<0.50	--	88.9 J	--	--	--	--	922.00
	10/25/17	--	--	--	**254.00**	1.02	--	75.50	--	--	--	--	**2,040.00**
	10/16/18***	--	--	--	**304.00**	0.61	--	93.40	--	--	--	--	757.00
	10/18/18	--	--	--	**7,870.00**	<0.10	--	**807.00**	--	--	--	--	**15,400.00**
Dup	10/18/18	--	--	--	**7,830.00**	<0.10	--	**873.00**	--	--	--	--	**12,700.00**
	06/20/19	--	--	--	**9,290.00**	--	--	--	--	--	--	--	**22,100.00**
Dup	06/20/19	--	--	--	**9,200.00**	--	--	--	--	--	--	--	**22,800.00**
	11/24/19				**5,780.00**			**722.00**					**12,200.00**
	04/20/20	--	--	--	**9,640.00**	--	--	--	--	--	--	--	**12,700.00**
	10/12/20	--	--	--	**8,470.00**	--	--	--	--	--	--	--	**14,900.00**
	06/25/21	--	--	--	**7,370.00**	--	--	--	--	--	--	--	**13,500.00**
	12/06/21	--	--	--	**7,440.00**	--	--	--	--	--	--	--	**9,490.00**
	08/23/22	--	--	--	***8,180***	--	--	--	--	--	--	--	**6,920**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
RW-1	12/21/22	--	--	--	**5,070**	--	--	--	--	--	--	--	**3,940**
(Continued)	07/20/23	--	--	--	**3,440**	--	--	--	--	--	--	--	**2,790**
Dup	07/20/23	--	--	--	**4,340**	--	--	--	--	--	--	--	**3,190**
	11/13/23	--	--	--	**2,160**	--	--	--	--	--	--	--	**6,540**
Dup	11/13/23	--	--	--	**1,810**	--	--	--	--	--	--	--	**3,530**
	07/31/24				**1,540**								**13,900**
Dup	07/31/24	--	--	--	**1,680**	--	--	--	--	--	--	--	**9,820**
	11/12/24				**2,220**			--					**4,280**
Dup	11/12/24	--	--	--	**5,890**	--	--	--	--	--	--	--	**6,980**
RW-2	05/22/03	324.00	<4.00	780.00	**1,580.00**	<2.00	2.43	23.90	1,060.00	<0.500	20.20	258.00	**4,310.00**
	11/26/03	64.00	<4.00	704.00	**1,480.00**	<5.00	5.81	38.30	988.00	<0.500	23.80	240.00	**3,535.00**
	11/17/04	104.00	<4.00	692.00	**2,280.00**	<10.00	<10.00	116.00	1,180.00	<0.500	18.50	415.00	**3,915.00**
	11/17/05	281.00	<10.00	422.00	**1,770.00**	0.89	0.60	175 D1	861.00	16.60	13.10	361.00	**7,350.00**
	11/16/06	49.00	150.00	199.00	**2,500.00**	0.57	1.90	370.00	978.00	48.80	18.00	437.00	**5,270.00**
	11/15/07	170.00	37.80	208.00	**1,680.00**	0.49	1.52	166 D1	586.00	<5.000	11.20	245.00	**5,590.00**
	11/12/08	150.00	<5.00	390.00	**2,500.00**	<0.50	0.24	250.00	1,200.00	<0.38	6.00	400.00	**4,800.00**
	11/04/09	34.00	<5.00	220.00	**2,200.00**	<0.50	1.70	240.00	940.00	0.18	16.00	420.00	**6,300.00**
	11/11/10	113.00	<5.00	172.00	**2,100.00**	<0.50	2.03	233.00	967.00	4.06	8.86	426.00	**4,550.00**
	11/10/11	36.90	<5.00	384.00	**4,330.00**	<10.00	2.13	305.00	2,040.00	1.12	18.70	711.00	**8,300.00**
	10/11/12	27.10	<5.00	202.00	**1,920.00**	<0.50	1.93	223.00	842.00	0.46	9.30	385.00	**6,680.00**
Dup	10/11/12	31.90	<5.00	206.00	**2,310.00**	<0.50	1.98	228.00	1,090.00	2.42	10.50	430.00	**5,250.00**
	10/08/13	66.30	<6.00	117.00	**2,450.00**	0.14	2.36	309.00	1,570.00	2.15	15.30	639.00	**4,420.00**
	10/07/14	35.20	<4.00	35.20	**2,250.00**	<0.10	2.52	378.00	995.00	21.60	10.30	408.00	**3,090.00**
	10/20/15	--	--	--	**699.00**	<20.00	--	118.00	--	--	--	--	**2,190.00**
	12/15/15	--	--	--	**1,130.00**	--	--	--	--	--	--	--	**2,290.00**
	12/16/15	--	--	--	**1,190.00**	--	--	--	--	--	--	--	**2,580.00**
	12/17/15	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,260.00**
	12/18/15	--	--	--	**988.00**	--	--	--	--	--	--	--	**2,350.00**
	01/04/16	--	--	--	**1,200.00**	--	--	--	--	--	--	--	**2,280.00**
	01/05/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,190.00**
	01/06/16	--	--	--	**1,120.00**	--	--	--	--	--	--	--	**2,240.00**
	01/07/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,200.00**
	01/08/16	--	--	--	**1,310.00**	--	--	--	--	--	--	--	**2,370.00**
	01/11/16	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,210.00**
	01/12/16	--	--	--	**1,520.00**	--	--	--	--	--	--	--	**2,850.00**
	10/18/16	--	--	--	**1,450.00**	<0.50	--	270.00	--	--	--	--	**3,910.00**
	10/25/17	--	--	--	**1,760.00**	<5.00	--	288.00	--	--	--	--	**4,440.00**
	10/18/18	--	--	--	**3,640.00**	<0.10	--	534.00	--	--	--	--	**6,890.00**
	06/20/19	--	--	--	**3,180.00**	--	--	--	--	--	--	--	**10,200 H**
	11/24/19				**3,510.00**			464.00					**9,880.00**
	04/20/20	--	--	--	**3,610.00**	--	--	--	--	--	--	--	**7,890.00**
	10/12/20	--	--	--	**3,070.00**	--	--	--	--	--	--	--	**5,140.00**
Dup	10/12/20	--	--	--	**2,990.00**	--	--	--	--	--	--	--	**5,460.00**
	06/25/21	--	--	--	**1,150.00**	--	--	--	--	--	--	--	**2,270.00**
Dup	06/25/21	--	--	--	**1,690.00**	--	--	--	--	--	--	--	**3,340.00**
	12/07/21	--	--	--	**582.00**	--	--	--	--	--	--	--	**1,040.00**
Dup	12/07/21	--	--	--	**567.00**	--	--	--	--	--	--	--	**1,250.00**
	08/23/22				**948**	--	--	--	--	--	--	--	***2,390***
Dup	08/23/22	--	--	--	**1,390**	--	--	--	--	--	--	--	***3,860***
	12/21/22	--	--	--	232	--	--	--	--	--	--	--	824 J3
	07/20/23	--	--	--	**2,910**	--	--	--	--	--	--	--	**4,950**
Dup	07/20/23	--	--	--	**2,840**	--	--	--	--	--	--	--	**4,310**
	11/14/23	--	--	--	**890**	--	--	--	--	--	--	--	**2,640**
	07/31/24	--	--	--	**533**	--	--	--	--	--	--	--	**3,510**
	11/13/24	--	--	--	**747**	--	--	--	--	--	--	--	**1,370**
RW-2R	10/08/13	<6.00	146.00	146.00	**6,550.00**	0.45	1.79	**762.00**	1,850.00	616.00	25.50	1,350.00	**14,600.00**
	10/07/14	<4.00	169.00	169.00	**5,400.00**	1.56	2.17	**707.00**	1,280.00	470.00	20.90	1,170.00	**13,200.00**
	10/20/15	--	--	--	**5,990.00**	<80.00	--	**806.00**	--	--	--	--	**16,200.00**
	10/18/16	--	--	--	**6,390.00**	<0.50	--	**797.00**	--	--	--	--	**15,200.00**
	10/25/17	--	--	--	**7,030.00**	<5.00	--	**872.00**	--	--	--	--	**12,300.00**
	10/16/18***	--	--	--	**1,960.00**	<0.10	--	467.00	--	--	--	--	**3,380.00**
	10/18/18	--	--	--	**7,920.00**	<0.10	--	**891.00**	--	--	--	--	**13,700.00**
Dup	10/18/18	--	--	--	**8,060.00**	<0.10	--	**815.00**	--	--	--	--	**13,300.00**
	06/20/19	--	--	--	**7,860.00**	--	--	--	--	--	--	--	**29,400.00**
	11/24/19				**7,720.00**			**943.00**					**21,000.00**
	04/20/20	--	--	--	**9,210.00**	--	--	--	--	--	--	--	**21,500.00**
	10/12/20	--	--	--	**7,860.00**	--	--	--	--	--	--	--	**13,800.00**
	06/25/21	--	--	--	**7,250.00**	--	--	--	--	--	--	--	**12,400.00**
	12/07/21	--	--	--	**7,400.00**	--	--	--	--	--	--	--	**6,330.00**
	08/23/22	--	--	--	**8,070**	--	--	--	--	--	--	--	**10,100**
	12/21/22	--	--	--	**7,480**	--	--	--	--	--	--	--	**14,600**
	07/20/23	--	--	--	**8,290**	--	--	**904**	--	--	--	--	**17,100**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
RW-2R	11/14/23	--	--	--	**8,300**	--	--	--	--	--	--	--	**13,500**
(Continued)	07/31/24	--	--	--	**7,590**	--	--	**845**	--	--	--	--	**20,100**
Dup	07/31/24	--	--	--	**8,010**	--	--	**881**	--	--	--	--	**18,400**
	11/13/24	--	--	--	**8,080**	--	--	**--**	--	--	--	--	**18,600**

Notes:
1. Bold and Italics value indicates a laboratory detection and New Mexico Water Quality Control Commission (NMWQCC) exceedance.
2. Results shown in mg/L.
3. NS - Not Sampled.
4. D1 - The analysis was performed at a dilution due to the high analyte concentration.
5. B - The same anlayte is found in the associated blank.
6. H - The analysis was performed past holding time.
7. C - Elevated detection limit due to matrix effect.
8. J - Estimated Concentration.
9. J3 - The associated batch QC was outside the established quality control range for precision.
10. J6- The sample matrix interfered with the ability to make any accurate determination; spike value is low.
11. < - Analyte detected below quantitation limit.
12. -- - Not Analysed
13. [1] Human Health Standards for Groundwater.
14. [2] Other Standards for Domestic Water Supply.
15. * - Indicates groundwater monitor well installed off-Site and upgradient of plume.
16. ** - Reported TDS concentration includes a low bias. Not used in trend comparison.
17. *** - Indicates groundwater monitor well that was sampled prior to semiannual groundwater event via low-flow purge for internal use.

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-1	05/18/98	135.05	3184.95	----	173.00	2.00	153-173
3320.00	05/25/99	134.93	3185.07	----	---	---	---
	02/08/01	134.80	3185.20	----	---	---	---
	05/10/02	134.77	3185.23	----	---	---	---
	10/22/02	134.89	3185.11	----	---	---	---
	05/20/03	135.17	3184.83	----	---	---	---
	11/24/03	134.70	3185.30	----	---	---	---
	05/11/04	134.75	3185.25	----	---	---	---
	11/15/04	134.76	3185.24	----	---	---	---
	05/17/05	134.29	3185.71	----	---	---	---
	11/15/05	134.93	3185.07	----	---	---	---
	05/08/06	134.68	3185.32	----	---	---	---
	11/13/06	134.62	3185.38	----	---	---	---
	05/29/07	134.71	3185.29	----	---	---	---
	11/16/07	134.70	3185.30	----	---	---	---
	05/14/08	134.73	3185.27	----	---	---	---
	11/03/08	134.69	3185.31	----	---	---	---
	05/19/09	134.64	3185.36	----	---	---	---
	11/02/09	134.71	3185.29	----	---	---	---
	05/05/10	134.90	3185.10	----	---	---	---
	11/08/10	134.50	3185.50	----	---	---	---
	05/11/11	134.60	3185.40	----	---	---	---
	11/08/11	134.64	3185.36	----	---	---	---
	05/16/12	134.60	3185.40	----	---	---	---
	10/10/12	134.73	3185.27	----	---	---	---
	05/16/13	134.58	3185.42	----	---	---	---
	10/08/13	134.53	3185.47	----	---	---	---
	05/01/14	134.70	3185.30	----	---	---	---
	10/05/14	134.49	3185.51	----	---	---	---
	05/21/15	134.56	3185.44	----	---	---	---
	10/19/15	134.80	3185.20	----	---	---	---
	05/25/16	134.69	3185.31	171.01	---	---	---
	10/17/16	134.35	3185.65	170.93	---	---	---
	05/10/17	134.44	3185.56	135.45	---	---	---
3321.94	10/24/17	134.63	3187.31	171.10	---	---	---
	05/22/18	134.45	3187.49	----	---	---	---
	10/17/18	134.54	3187.40	----	---	---	---
	06/20/19	134.56	3187.38	171.17	---	---	---
	11/20/19	134.45	3187.49	174.20	---	---	---
	04/13/20	134.56	3187.38	169.91	---	---	---
	10/12/20	134.72	3187.22	168.44	---	---	---
	06/21/21	134.58	3187.36	169.05	---	---	---
	12/06/21	134.57	3187.37	170.94	---	---	---
	08/22/22	134.47	3187.47	169.05	---	---	---
	12/21/22	134.38	3187.56	140.84	---	---	---
	07/20/23	134.52	3187.42	169.98	---	---	---
	11/13/23	134.45	3187.49	169.81	---	---	---
	07/30/24	134.41	3187.53	169.58	---	---	---
	11/12/24	134.36	3187.58	169.59	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-2	05/18/98	135.00	3184.86	----	173.00	2.00	163-173
3319.86	05/25/99	134.79	3185.07	----	---	---	---
	02/08/01	134.63	3185.23	----	---	---	---
	05/10/02	134.65	3185.21	----	---	---	---
	10/22/02	134.72	3185.14	----	---	---	---
	05/20/03	134.95	3184.91	----	---	---	---
	11/24/03	134.56	3185.30	----	---	---	---
	05/11/04	134.55	3185.31	----	---	---	---
	11/15/04	134.53	3185.33	----	---	---	---
	05/17/05	134.39	3185.47	----	---	---	---
	11/15/05	134.77	3185.09	----	---	---	---
	05/08/06	134.52	3185.34	----	---	---	---
	11/13/06	134.44	3185.42	----	---	---	---
	05/29/07	134.54	3185.32	----	---	---	---
	11/14/07	134.52	3185.34	----	---	---	---
	05/14/08	134.53	3185.33	----	---	---	---
	11/03/08	134.44	3185.42	----	---	---	---
	05/19/09	134.46	3185.40	----	---	---	---
	11/16/09	134.51	3185.35	----	---	---	---
	05/05/10	134.62	3185.24	----	---	---	---
	11/08/10	134.25	3185.61	----	---	---	---
	05/11/11	134.31	3185.55	----	---	---	---
	11/08/11	134.36	3185.50	----	---	---	---
	05/16/12	134.31	3185.55	----	---	---	---
	10/10/12	134.51	3185.35	----	---	---	---
	05/16/13	134.33	3185.53	----	---	---	---
	10/07/13	142.85	3177.01	----	---	---	---
	05/01/14	134.37	3185.49	----	---	---	---
	10/05/14	134.14	3185.72	----	---	---	---
	05/21/15	134.21	3185.65	----	---	---	---
	10/19/15	134.20	3185.66	----	---	---	---
	05/25/16	134.38	3185.48	170.95	---	---	---
	10/17/16	134.00	3185.86	170.80	---	---	---
	05/10/17	134.13	3185.73	171.40	---	---	---
3321.27	10/25/17	134.32	3186.95	170.90	---	---	---
	05/22/18	134.11	3187.16	----	---	---	---
	10/17/18	134.21	3187.06	----	---	---	---
	06/20/19	134.27	3187.00	168.39	---	---	---
	11/20/19	134.21	3187.06	168.57	---	---	---
	04/13/20	134.2	3187.07	168.52	---	---	---
	10/12/20	134.49	3186.78	168.63	---	---	---
	06/21/21	134.39	3186.88	169.68	---	---	---
	12/06/21	134.21	3187.06	170.67	---	---	---
	08/22/22	134.16	3187.11	169.68	---	---	---
	12/21/22	143.07	3178.20	170.06	---	---	---
	07/20/23	134.20	3187.07	170.45	---	---	---
	11/13/23	134.11	3187.16	169.02	---	---	---
	07/30/24	134.12	3187.15	168.98	---	---	---
	11/12/24	134.05	3187.22	168.97	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-2A	05/18/98	134.80	3185.06	----	145	2.00	130-145
3319.86	05/25/99	134.73	3185.13	----	---	---	---
	02/08/01	134.58	3185.28	----	---	---	---
	05/10/02	134.50	3185.36	----	---	---	---
	10/22/02	134.66	3185.20	----	---	---	---
	05/20/03	135.80	3184.06	----	---	---	---
	11/24/03	134.60	3185.26	----	---	---	---
	05/11/04	134.53	3185.33	----	---	---	---
	11/15/04	134.58	3185.28	----	---	---	---
	05/17/05	134.47	3185.39	----	---	---	---
	11/15/05	134.74	3185.12	----	---	---	---
	05/08/06	134.46	3185.40	----	---	---	---
	11/13/06	134.39	3185.47	----	---	---	---
	05/29/07	134.50	3185.36	----	---	---	---
	11/14/07	134.48	3185.38	----	---	---	---
	05/14/08	134.49	3185.37	----	---	---	---
	11/03/08	134.46	3185.40	----	---	---	---
	05/19/09	134.42	3185.44	----	---	---	---
	11/02/09	134.45	3185.41	----	---	---	---
	05/05/10	134.52	3185.34	----	---	---	---
	11/08/10	134.30	3185.56	----	---	---	---
	05/11/11	134.38	3185.48	----	---	---	---
	11/08/11	134.42	3185.44	----	---	---	---
	05/16/12	134.43	3185.43	----	---	---	---
	10/10/12	134.65	3185.21	----	---	---	---
	05/16/13	134.35	3185.51	----	---	---	---
	10/07/13	134.20	3185.66	----	---	---	---
	05/01/14	134.45	3185.41	----	---	---	---
	10/05/14	134.15	3185.71	----	---	---	---
	05/21/15	134.32	3185.54	----	---	---	---
	10/19/15	134.40	3185.46	----	---	---	---
	05/25/16	134.49	3185.37	142.39	---	---	---
	10/17/16	134.10	3185.76	142.20	---	---	---
	05/10/17	134.29	3185.57	142.67	---	---	---
3321.30	10/25/17	134.40	3186.90	142.20	---	---	---
	05/22/18	134.31	3186.99	----	---	---	---
	10/17/18	134.31	3186.99	----	---	---	---
	06/20/19	134.43	3186.87	142.47	---	---	---
	11/20/19	134.24	3187.06	142.23	---	---	---
	04/13/20	134.29	3187.01	142.29	---	---	---
	10/12/20	134.45	3186.85	142.86	---	---	---
	06/21/21	134.29	3187.01	142.16	---	---	---
	12/06/21	134.29	3187.01	142.15	---	---	---
	08/22/22	134.23	3187.07	142.16	---	---	---
	12/21/22	134.14	3187.16	142.17	---	---	---
	07/20/23	134.25	3187.05	142.15	---	---	---
	11/13/23	134.19	3187.11	142.15	---	---	---
	07/30/24	134.18	3187.12	142.19	---	---	---
	11/12/24	134.13	3187.17	142.18	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-3	05/18/98	132.65	3185.56	----	171	2.00	161-171
3318.21	05/25/99	132.52	3185.69	----	---	---	---
	02/08/01	132.40	3185.81	----	---	---	---
	05/10/02	132.40	3185.81	----	---	---	---
	10/22/02	132.49	3185.72	----	---	---	---
	05/20/03	132.75	3185.46	----	---	---	---
	11/24/03	132.29	3185.92	----	---	---	---
	05/11/04	132.38	3185.83	----	---	---	---
	11/15/04	132.46	3185.75	----	---	---	---
	05/17/05	132.32	3185.89	----	---	---	---
	11/15/05	132.55	3185.66	----	---	---	---
	05/08/06	132.32	3185.89	----	---	---	---
	11/13/06	132.27	3185.94	----	---	---	---
	05/29/07	132.36	3185.85	----	---	---	---
	11/16/07	132.34	3185.87	----	---	---	---
	05/14/08	132.36	3185.85	----	---	---	---
	11/03/08	132.31	3185.90	----	---	---	---
	05/19/09	132.25	3185.96	----	---	---	---
	11/02/09	132.37	3185.84	----	---	---	---
	05/05/10	132.48	3185.73	----	---	---	---
	11/08/10	132.14	3186.07	----	---	---	---
	05/11/11	132.24	3185.97	----	---	---	---
	11/08/11	132.30	3185.91	----	---	---	---
	05/16/12	132.25	3185.96	----	---	---	---
	10/10/12	132.54	3185.67	----	---	---	---
	05/16/13	132.25	3185.96	----	---	---	---
	10/08/13	132.14	3186.07	----	---	---	---
	05/01/14	132.10	3186.11	----	---	---	---
	10/05/14	132.58	3185.63	----	---	---	---
	05/21/15	132.25	3185.96	----	---	---	---
	10/19/15	132.25	3185.96	----	---	---	---
	05/25/16	132.34	3185.87	171.93	---	---	---
	10/17/16	132.00	3186.21	171.83	---	---	---
	05/10/17	132.21	3186.00	162.35	---	---	---
3320.08	10/24/17	132.30	3187.78	171.97	---	---	---
	05/22/18	132.15	3187.93	----	---	---	---
	10/17/18	132.21	3187.87	----	---	---	---
	06/20/19	132.24	3187.84	171.93	---	---	---
	11/19/19	132.5	3187.58	175.90	---	---	---
	04/13/20	132.32	3187.76	161.64	---	---	---
	10/12/20	132.36	3187.72	161.09	---	---	---
	06/22/21	132.12	3187.96	171.84	---	---	---
	12/06/21	132.16	3187.92	171.98	---	---	---
	08/22/22	132.03	3188.05	171.84	---	---	---
	12/21/22	132.00	3188.08	171.85	---	---	---
	07/21/23	132.21	3187.87	171.98	---	---	---
	11/13/23	132.07	3188.01	171.80	---	---	---
	07/31/24	132.06	3188.02	172.27	---	---	---
	11/12/24	131.96	3188.12	172.29	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-4	05/18/98	136.01	3183.73	----	171.00	2.00	161-171
3319.74	05/25/99	135.57	3184.17	----	---	---	---
	02/08/01	135.87	3183.87	----	---	---	---
	05/10/02	135.67	3184.07	----	---	---	---
	10/22/02	135.90	3183.84	----	---	---	---
	05/20/03	136.00	3183.74	----	---	---	---
	11/24/03	135.70	3184.04	----	---	---	---
	05/11/04	135.34	3184.40	----	---	---	---
	11/15/04	135.76	3183.98	----	---	---	---
	05/17/05	135.69	3184.05	----	---	---	---
	11/15/05	135.85	3183.89	----	---	---	---
	05/08/06	135.60	3184.14	----	---	---	---
	11/13/06	135.59	3184.15	----	---	---	---
	05/29/07	135.75	3183.99	----	---	---	---
	11/14/07	135.62	3184.12	----	---	---	---
	05/14/08	135.76	3183.98	----	---	---	---
	11/03/08	135.66	3184.08	----	---	---	---
	05/19/09	135.67	3184.07	----	---	---	---
	11/02/09	135.68	3184.06	----	---	---	---
	05/05/10	135.83	3183.91	----	---	---	---
	11/08/10	135.36	3184.38	----	---	---	---
	05/05/11	135.40	3184.34	----	---	---	---
	11/08/11	135.43	3184.31	----	---	---	---
	05/16/12	135.38	3184.36	----	---	---	---
	10/10/12	135.55	3184.19	----	---	---	---
	05/16/13	135.38	3184.36	----	---	---	---
	10/07/13	135.53	3184.21	----	---	---	---
	05/01/14	135.41	3184.33	----	---	---	---
	10/05/14	135.61	3184.13	----	---	---	---
	05/21/15	135.25	3184.49	----	---	---	---
	10/19/15	135.70	3184.04	----	---	---	---
	05/25/16	135.44	3184.30	171.79	---	---	---
	10/17/16	135.11	3184.63	173.06	---	---	---
	05/10/17	135.20	3184.54	169.58	---	---	---
3321.58	10/25/17	135.40	3186.18	172.1	---	---	---
	05/22/18	135.13	3186.45	----	---	---	---
	10/16/18	135.32	3186.26	----	---	---	---
	06/20/19	136.21	3185.37	171.81	---	---	---
	11/19/19	135.06	3186.52	177.64	---	---	---
	04/15/20	135.25	3186.33	171.71	---	---	---
	10/12/20	135.41	3186.17	171.71	---	---	---
	06/21/21	135.28	3186.30	171.95	---	---	---
	12/06/21	135.23	3186.35	171.73	---	---	---
	08/22/22	135.27	3186.31	171.95	---	---	---
	12/21/22	134.98	3186.60	171.64	---	---	---
	07/20/23	135.24	3186.34	171.81	---	---	---
	11/13/23	135.10	3186.48	171.53	---	---	---
	07/30/24	135.15	3186.43	171.77	---	---	---
	11/12/24	135.03	3186.55	171.79	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-4A	05/18/98	135.68	3183.90	----	143.00	2.00	128-143
3319.58	05/21/99	135.65	3183.93	----	---	---	---
	05/25/99	135.90	3183.68	----	---	---	---
	02/08/01	135.34	3184.24	----	---	---	---
	05/10/02	135.30	3184.28	----	---	---	---
	10/22/02	135.51	3184.07	----	---	---	---
	05/20/03	135.55	3184.03	----	---	---	---
	11/24/03	135.31	3184.27	----	---	---	---
	05/11/04	135.72	3183.86	----	---	---	---
	11/15/04	135.38	3184.20	----	---	---	---
	05/17/05	135.32	3184.26	----	---	---	---
	11/15/05	135.52	3184.06	----	---	---	---
	05/08/06	135.26	3184.32	----	---	---	---
	11/13/06	135.20	3184.38	----	---	---	---
	05/29/07	135.32	3184.26	----	---	---	---
	11/14/07	135.20	3184.38	----	---	---	---
	05/14/08	135.31	3184.27	----	---	---	---
	11/03/08	135.27	3184.31	----	---	---	---
	05/19/09	135.25	3184.33	----	---	---	---
	11/02/09	135.25	3184.33	----	---	---	---
	05/05/10	135.33	3184.25	----	---	---	---
	11/08/10	135.18	3184.40	----	---	---	---
	05/11/11	135.17	3184.41	----	---	---	---
	11/08/11	135.22	3184.36	----	---	---	---
	05/16/12	135.18	3184.40	----	---	---	---
	10/10/12	135.33	3184.25	----	---	---	---
	05/16/13	135.20	3184.38	----	---	---	---
	10/07/13	135.01	3184.57	----	---	---	---
	05/01/14	135.26	3184.32	----	---	---	---
	10/05/14	135.05	3184.53	----	---	---	---
	05/21/15	135.11	3184.47	----	---	---	---
	10/19/15	135.20	3184.38	----	---	---	---
	05/25/16	135.27	3184.31	145.55	---	---	---
	10/17/16	135.00	3184.58	145.61	---	---	---
	05/10/17	135.01	3184.57	145.51	---	---	---
3321.42	10/25/17	135.22	3186.20	145.60	---	---	---
	05/22/18	134.97	3186.45	----	---	---	---
	10/16/18	135.11	3186.31	----	---	---	---
	06/20/19	134.98	3186.44	145.55	---	---	---
	11/19/19	134.95	3186.47	147.60	---	---	---
	04/15/20	136.09	3185.33	145.35	---	---	---
	10/12/20	136.13	3185.29	145.46	---	---	---
	06/21/21	135.15	3186.27	145.39	---	---	---
	12/06/21	135.08	3186.34	145.49	---	---	---
	08/22/22	135.05	3186.37	145.39	---	---	---
	12/21/22	134.86	3186.56	145.19	---	---	---
	07/20/23	135.06	3186.36	145.64	---	---	---
	11/13/23	134.98	3186.44	145.65	---	---	---
	07/30/24	134.97	3186.45	145.98	---	---	---
	11/12/24	134.93	3186.49	145.97	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-5	05/18/98	137.42	3183.68	----	171.00	2.00	161-171
3321.10	05/25/99	137.28	3183.82	----	---	---	---
	02/08/01	137.18	3183.92	----	---	---	---
	05/10/02	137.10	3184.00	----	---	---	---
	10/22/02	137.04	3184.06	----	---	---	---
	05/20/03	137.45	3183.65	----	---	---	---
	11/24/03	137.01	3184.09	----	---	---	---
	05/11/04	137.01	3184.09	----	---	---	---
	11/15/04	137.08	3184.02	----	---	---	---
	05/17/05	137.00	3184.10	----	---	---	---
	11/15/05	137.18	3183.92	----	---	---	---
	05/08/06	136.90	3184.20	----	---	---	---
	11/13/06	136.81	3184.29	----	---	---	---
	05/29/07	136.92	3184.18	----	---	---	---
	11/14/07	136.85	3184.25	----	---	---	---
	05/14/08	136.97	3184.13	----	---	---	---
	11/03/08	136.89	3184.21	----	---	---	---
	05/19/09	136.90	3184.20	----	---	---	---
	11/02/09	136.90	3184.20	----	---	---	---
	05/05/10	137.02	3184.08	----	---	---	---
	11/08/10	136.93	3184.17	----	---	---	---
	05/11/11	136.92	3184.18	----	---	---	---
	11/08/11	136.84	3184.26	----	---	---	---
	05/16/12	136.80	3184.30	----	---	---	---
	10/10/12	136.98	3184.12	----	---	---	---
	05/16/13	136.80	3184.30	----	---	---	---
	10/07/13	136.79	3184.31	----	---	---	---
	05/01/14	136.83	3184.27	----	---	---	---
	10/05/14	136.63	3184.47	----	---	---	---
	05/21/15	130.60	3190.50	----	---	---	---
	10/19/15	136.70	3184.40	----	---	---	---
	05/25/16	136.79	3184.31	173.60	---	---	---
	10/17/16	136.51	3184.59	173.67	---	---	---
	05/10/17	136.53	3184.57	173.48	---	---	---
3322.98	10/25/17	136.80	3186.18	174.01	---	---	---
	05/22/18	136.51	3186.47	----	---	---	---
	10/16/18	136.58	3186.40	----	---	---	---
	06/20/19	136.65	3186.33	173.72	---	---	---
	11/19/19	136.91	3186.07	177.50	---	---	---
	04/15/20	136.48	3186.50	173.46	---	---	---
	10/12/20	136.78	3186.20	173.84	---	---	---
	06/21/21	136.64	3186.34	173.62	---	---	---
	12/06/21	136.58	3186.40	179.65	---	---	---
	08/22/22	136.52	3186.46	173.62	---	---	---
	12/21/22	136.38	3186.60	173.59	---	---	---
	07/20/23	136.56	3186.42	173.89	---	---	---
	11/13/23	136.45	3186.53	173.52	---	---	---
	07/30/24	136.45	3186.53	174.16	---	---	---
	11/12/24	136.39	3186.59	174.17	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-5A	05/18/98	137.20	3183.87	----	141.00	2.00	126-141
3321.07	05/25/99	137.11	3183.96	----	---	---	---
	02/08/01	136.99	3184.08	----	---	---	---
	05/10/02	136.90	3184.17	----	---	---	---
	10/22/02	137.17	3183.90	----	---	---	---
	05/20/03	137.24	3183.83	----	---	---	---
	11/24/03	136.91	3184.16	----	---	---	---
	05/11/04	136.88	3184.19	----	---	---	---
	11/15/04	136.92	3184.15	----	---	---	---
	05/17/05	136.83	3184.24	----	---	---	---
	11/15/05	137.06	3184.01	----	---	---	---
	05/08/06	136.80	3184.27	----	---	---	---
	11/13/06	136.74	3184.33	----	---	---	---
	05/29/07	136.82	3184.25	----	---	---	---
	11/14/07	136.88	3184.19	----	---	---	---
	05/14/08	136.83	3184.24	----	---	---	---
	11/03/08	136.81	3184.26	----	---	---	---
	05/19/09	136.78	3184.29	----	---	---	---
	11/02/09	136.80	3184.27	----	---	---	---
	05/05/10	136.91	3184.16	----	---	---	---
	11/08/10	136.69	3184.38	----	---	---	---
	05/11/11	136.87	3184.20	----	---	---	---
	11/08/11	136.77	3184.30	----	---	---	---
	05/16/12	136.74	3184.33	----	---	---	---
	10/10/12	136.85	3184.22	----	---	---	---
	05/16/13	136.72	3184.35	----	---	---	---
	10/07/13	137.45	3183.62	----	---	---	---
	05/01/14	136.81	3184.26	----	---	---	---
	10/05/14	136.61	3184.46	----	---	---	---
	05/21/15	136.68	3184.39	----	---	---	---
	10/19/15	136.55	3184.52	----	---	---	---
	05/25/16	136.84	3184.23	144.01	---	---	---
	10/17/16	136.43	3184.64	144.60	---	---	---
	05/10/17	136.66	3184.41	144.23	---	---	---
	10/25/17	136.80	3184.27	143.97	---	---	---
	05/22/18	136.55	3184.52	----	---	---	---
	10/16/18	136.64	3184.43	----	---	---	---
	06/20/19	144.05	3177.02	176.71	---	---	---
	11/19/19	136.46	3184.61	139.98	---	---	---
	04/15/20	136.60	3184.47	143.91	---	---	---
	10/12/20	136.80	3184.27	144.00	---	---	---
	06/21/21	136.71	3184.36	143.96	---	---	---
	12/06/21	136.56	3184.51	143.94	---	---	---
	08/22/22	136.55	3184.52	143.96	---	---	---
	12/21/22	136.49	3184.58	143.86	---	---	---
	07/20/23	136.66	3184.41	144.02	---	---	---
	11/13/23	136.52	3184.55	144.06	---	---	---
	07/30/24	136.53	3184.54	144.22	---	---	---
	11/12/24	136.45	3184.62	144.22	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-6	05/18/98	136.73	3184.42	----	170.00	2.00	120-170
3321.15	05/25/99	136.61	3184.54	----	---	---	---
	02/08/01	136.50	3184.65	----	---	---	---
	05/10/02	136.40	3184.75	----	---	---	---
	10/22/02	136.57	3184.58	----	---	---	---
	05/20/03	136.85	3184.30	----	---	---	---
	11/24/03	136.38	3184.77	----	---	---	---
	05/11/04	136.41	3184.74	----	---	---	---
	11/15/04	136.08	3185.07	----	---	---	---
	05/17/05	136.58	3184.57	----	---	---	---
	11/15/05	136.82	3184.33	----	---	---	---
	05/08/06	136.58	3184.57	----	---	---	---
	11/13/06	136.49	3184.66	----	---	---	---
	05/29/07	136.61	3184.54	----	---	---	---
	11/15/07	136.59	3184.56	----	---	---	---
	05/14/08	136.58	3184.57	----	---	---	---
	11/03/08	136.52	3184.63	----	---	---	---
	05/19/09	136.52	3184.63	----	---	---	---
	11/02/09	136.51	3184.64	----	---	---	---
	05/05/10	136.53	3184.62	----	---	---	---
	11/08/10	136.40	3184.75	----	---	---	---
	05/11/11	Well Casing Damaged					
	11/08/11	Well Casing Damaged					
	05/16/12	Well Casing Damaged					
	10/09/12	Well Casing Damaged					
	09/30/13	Well Plugged and Abandonded 9/30/2013					
MW-6R	05/01/14	136.25	3185.25	----	----	4	136-176
3321.50	10/05/14	136.40	3185.10	----	---	---	---
	05/21/15	136.13	3185.37	----	---	---	---
	10/19/15	136.20	3185.30	----	---	---	---
	05/25/16	136.27	3185.23	177.80	---	---	---
	10/17/16	135.96	3185.54	176.00	---	---	---
	05/10/17	136.07	3185.43	179.88	---	---	---
3323.04	10/25/17	136.20	3186.84	178.78	---	---	---
	05/22/18	136.03	3187.01	----	---	---	---
	10/17/18	136.09	3186.95	----	---	---	---
	06/20/19	----	----	----	---	---	---
	11/19/19	136.04	3187.00	187.37	---	---	---
	04/13/20	135.97	3187.07	177.82	---	---	---
	10/12/20	136.27	3186.77	184.73	---	---	---
	06/21/21	163.11	3159.93	177.85	---	---	---
	12/06/21	136.09	3186.95	177.74	---	---	---
	08/22/22	136.02	3187.02	177.85	---	---	---
	12/21/22	135.91	3187.13	177.74	---	---	---
	07/20/23	136.07	3186.97	179.01	---	---	---
	11/13/23	135.97	3187.07	179.09	---	---	---
	07/30/24	135.48	3187.56	177.55	---	---	---
	11/12/24	135.94	3187.10	177.55	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-7	05/18/98	136.19	3182.20	----	166.00	2.00	151-166
3318.39	05/25/99	135.98	3182.41	----	---	---	---
	02/08/01	135.87	3182.52	----	---	---	---
	05/10/02	135.67	3182.72	----	---	---	---
	10/22/02	135.89	3182.50	----	---	---	---
	05/20/03	136.12	3182.27	----	---	---	---
	11/24/03	135.71	3182.68	----	---	---	---
	05/11/04	135.74	3182.65	----	---	---	---
	11/15/04	135.78	3182.61	----	---	---	---
	05/17/05	135.68	3182.71	----	---	---	---
	11/15/05	135.90	3182.49	----	---	---	---
	05/08/06	135.64	3182.75	----	---	---	---
	11/13/06	135.58	3182.81	----	---	---	---
	05/29/07	135.73	3182.66	----	---	---	---
	11/15/07	135.64	3182.75	----	---	---	---
	05/14/08	135.68	3182.71	----	---	---	---
	11/03/08	135.66	3182.73	----	---	---	---
	05/19/09	135.63	3182.76	----	---	---	---
	11/02/09	135.65	3182.74	----	---	---	---
	05/05/10	135.80	3182.59	----	---	---	---
	11/08/10	135.51	3182.88	----	---	---	---
	05/11/11	135.68	3182.71	----	---	---	---
	11/08/11	135.62	3182.77	----	---	---	---
	05/16/12	135.55	3182.84	----	---	---	---
	10/10/12	135.79	3182.60	----	---	---	---
	05/16/13	135.59	3182.80	----	---	---	---
	10/07/13	NS	NS	----	---	---	---
	05/01/14	135.65	3182.74	----	---	---	---
	10/05/14	135.58	3182.81	----	---	---	---
	05/21/15	135.52	3182.87	----	---	---	---
	10/19/15	135.54	3182.85	----	---	---	---
	05/25/16	135.75	3182.64	162.18	---	---	---
	10/17/16	135.35	3183.04	163.60	---	---	---
	05/10/17	135.39	3183.00	162.53	---	---	---
3320.19	10/24/17	135.38	3184.81	162.50	---	---	---
	05/22/18	135.39	3184.80	----	---	---	---
	10/15/18	135.59	3184.60	----	---	---	---
	06/20/19	135.48	3184.71	162.60	---	---	---
	11/20/19	135.50	3184.69	162.58	---	---	---
	04/15/20	135.59	3184.60	163.35	---	---	---
	10/12/20	135.64	3184.55	162.75	---	---	---
	06/22/21	135.50	3184.69	162.85	---	---	---
	12/06/21	135.44	3184.75	179.65	---	---	---
	08/22/22	135.40	3184.79	162.85	---	---	---
	12/21/22	135.26	3184.93	162.73	---	---	---
	07/20/23	135.50	3184.69	163.44	---	---	---
	11/13/23	135.37	3184.82	163.20	---	---	---
	07/30/24	135.39	3184.80	163.88	---	---	---
	11/12/24	135.33	3184.86	163.92	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-8	05/18/98	134.36	3182.78	----	170.00	2.00	155-170
3317.14	05/25/99	134.21	3182.93	----	---	---	---
	02/08/01	134.08	3183.06	----	---	---	---
	05/10/02	133.95	3183.19	----	---	---	---
	10/22/02	134.18	3182.96	----	---	---	---
	05/20/03	134.38	3182.76	----	---	---	---
	11/24/03	133.99	3183.15	----	---	---	---
	05/11/04	134.02	3183.12	----	---	---	---
	11/15/04	134.11	3183.03	----	---	---	---
	05/17/05	133.97	3183.17	----	---	---	---
	11/15/05	134.21	3182.93	----	---	---	---
	05/08/06	133.94	3183.20	----	---	---	---
	11/13/06	133.90	3183.24	----	---	---	---
	05/29/07	134.02	3183.12	----	---	---	---
	11/15/07	133.76	3183.38	----	---	---	---
	05/15/08	133.98	3183.16	----	---	---	---
	11/03/08	134.01	3183.13	----	---	---	---
	05/19/09	133.97	3183.17	----	---	---	---
	11/02/09	134.00	3183.14	----	---	---	---
	05/05/10	134.08	3183.06	----	---	---	---
	11/08/10	134.03	3183.11	----	---	---	---
	05/11/11	133.98	3183.16	----	---	---	---
	11/08/11	133.96	3183.18	----	---	---	---
	05/16/12	133.84	3183.30	----	---	---	---
	10/10/12	134.15	3182.99	----	---	---	---
	05/16/13	133.94	3183.20	----	---	---	---
	10/07/13	133.90	3183.24	----	---	---	---
	05/01/14	133.91	3183.23	----	---	---	---
	10/05/14	133.75	3183.39	----	---	---	---
	05/21/15	133.88	3183.26	----	---	---	---
	10/19/15	133.88	3183.26	----	---	---	---
	05/25/16	133.86	3183.28	146.27	---	---	---
	10/17/16	133.68	3183.46	147.30	---	---	---
	05/10/17	133.84	3183.30	146.54	---	---	---
3319.06	10/24/17	133.72	3185.34	146.35	---	---	---
	05/22/18	133.77	3185.29	----	---	---	---
	10/17/18	133.87	3185.19	----	---	---	---
	06/20/19	133.87	3185.19	146.85	---	---	---
	11/20/19	133.84	3185.22	146.92	---	---	---
	04/15/20	133.81	3185.25	146.58	---	---	---
	10/12/20	133.96	3185.10	146.45	---	---	---
	06/22/21	133.74	3185.32	146.80	---	---	---
	12/06/21	133.74	3185.32	146.48	---	---	---
	08/22/22	133.68	3185.38	146.80	---	---	---
	12/21/22	133.64	3185.42	146.92	---	---	---
	07/20/23	133.81	3185.25	146.91	---	---	---
	11/13/23	133.72	3185.34	146.94	---	---	---
	07/30/24	133.60	3185.46	146.76	---	---	---
	11/12/24	133.61	3185.45	146.81	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-9	05/18/98	132.89	3179.90	----	164.00	2.00	149-164
3312.79	05/25/99	132.68	3180.11	----	---	---	---
	02/08/01	132.52	3180.27	----	---	---	---
	05/10/02	137.20	3175.59	----	---	---	---
	10/22/02	132.56	3180.23	----	---	---	---
	05/20/03	132.75	3180.04	----	---	---	---
	11/24/03	132.35	3180.44	----	---	---	---
	05/11/04	132.39	3180.40	----	---	---	---
	11/15/04	132.43	3180.36	----	---	---	---
	05/17/05	132.26	3180.53	----	---	---	---
	11/15/05	132.60	3180.19	----	---	---	---
	05/08/06	132.26	3180.53	----	---	---	---
	11/13/06	132.19	3180.60	----	---	---	---
	05/29/07	132.32	3180.47	----	---	---	---
	11/14/07	132.34	3180.45	----	---	---	---
	05/15/08	132.29	3180.50	----	---	---	---
	11/03/08	132.33	3180.46	----	---	---	---
	05/19/09	132.21	3180.58	----	---	---	---
	11/02/09	132.35	3180.44	----	---	---	---
	05/05/10	132.41	3180.38	----	---	---	---
	11/08/10	132.10	3180.69	----	---	---	---
	05/11/11	132.22	3180.57	----	---	---	---
	11/08/11	132.19	3180.60	----	---	---	---
	05/16/12	132.05	3180.74	----	---	---	---
	10/10/12	132.32	3180.47	----	---	---	---
	05/16/13	132.08	3180.71	----	---	---	---
	10/07/13	131.94	3180.85	----	---	---	---
	05/01/14	Not Measured - Obstruction In Well					
	10/05/14	131.95	3180.84	----	---	---	---
	05/21/15	132.05	3180.74	----	---	---	---
	10/19/15	132.01	3180.78	----	---	---	---
	05/25/16	131.98	3180.81	161.03	---	---	---
	10/17/16	131.91	3180.88	161.51	---	---	---
	05/10/17	131.95	3180.84	145.16	---	---	---
3314.68	10/24/17	131.92	3182.76	161.50	---	---	---
	05/22/18	131.90	3182.78	----	---	---	---
	10/17/18	131.98	3182.70	----	---	---	---
	06/20/19	131.95	3182.73	161.46	---	---	---
	11/20/19	131.86	3182.82	162.00	---	---	---
	04/15/20	139.92	3174.76	161.15	---	---	---
	10/12/20	132.09	3182.59	161.34	---	---	---
	06/22/21	131.94	3182.74	161.43	---	---	---
	12/06/21	131.87	3182.81	161.34	---	---	---
	08/22/22	131.86	3182.82	161.43	---	---	---
	12/21/22	131.68	3183.00	161.92	---	---	---
	07/20/23	131.90	3182.78	161.17	---	---	---
	11/13/23	131.76	3182.92	161.27	---	---	---
	07/31/24	131.83	3182.85	161.71	---	---	---
	11/12/24	131.71	3182.97	161.74	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-9A	05/18/98	132.65	3179.91	----	142.00	2.00	127-142
3312.56	05/25/99	132.43	3180.13	----	---	---	---
	02/08/01	132.37	3180.19	----	---	---	---
	05/10/02	137.20	3175.36	----	---	---	---
	10/22/02	132.35	3180.21	----	---	---	---
	05/20/03	132.55	3180.01	----	---	---	---
	11/24/03	132.10	3180.46	----	---	---	---
	05/11/04	132.14	3180.42	----	---	---	---
	11/15/04	132.19	3180.37	----	---	---	---
	05/17/05	132.06	3180.50	----	---	---	---
	11/15/05	132.35	3180.21	----	---	---	---
	05/08/06	132.02	3180.54	----	---	---	---
	11/13/06	131.09	3181.47	----	---	---	---
	05/29/07	132.08	3180.48	----	---	---	---
	11/14/07	132.06	3180.50	----	---	---	---
	05/15/08	132.03	3180.53	----	---	---	---
	11/03/08	131.98	3180.58	----	---	---	---
	05/19/09	132.00	3180.56	----	---	---	---
	11/02/09	131.90	3180.66	----	---	---	---
	05/05/10	131.96	3180.60	----	---	---	---
	11/08/10	131.85	3180.71	----	---	---	---
	05/11/11	132.06	3180.50	----	---	---	---
	11/08/11	131.95	3180.61	----	---	---	---
	05/16/12	131.81	3180.75	----	---	---	---
	10/10/12	132.09	3180.47	----	---	---	---
	05/16/13	131.88	3180.68	----	---	---	---
	10/07/13	131.90	3180.66	----	---	---	---
	05/01/14	Not Measured - Obstruction In Well					
	10/05/14	Not Measured - Obstruction In Well					
	05/21/15	Not Measured - Obstruction In Well					
	10/19/15	131.68	3180.88	----	---	---	---
	05/25/16	131.73	3180.83	140.32	---	---	---
	10/17/16	131.62	3180.94	141.42	---	---	---
	05/10/17	131.68	3180.88	141.07	---	---	---
3314.48	10/24/17	131.60	3182.88	141.57	---	---	---
	05/22/18	131.81	3182.67	----	---	---	---
	10/17/18	131.72	3182.76	----	---	---	---
	06/20/19	131.69	3182.79	141.72	---	---	---
	11/20/19	131.63	3182.85	145.66	---	---	---
	04/15/20	131.5	3182.98	142.05	---	---	---
	10/12/20	131.86	3182.62	142.10	---	---	---
	06/22/21	131.65	3182.83	144.65	---	---	---
	12/06/21	131.64	3182.84	146.19	---	---	---
	08/22/22	131.53	3182.95	144.65	---	---	---
	12/21/22	131.41	3183.07	143.15	---	---	---
	07/20/23	131.60	3182.88	142.10	---	---	---
	11/13/23	131.50	3182.98	142.13	---	---	---
	07/31/24	131.58	3182.90	142.41	---	---	---
	11/12/24	131.50	3182.98	142.45	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-10	05/18/98	137.18	3182.12	----	166.00	2.00	151-166
3319.30	05/25/99	137.04	3182.26	----	---	---	---
	02/08/01	136.88	3182.42	----	---	---	---
	05/10/02	136.80	3182.50	----	---	---	---
	10/22/02	136.91	3182.39	----	---	---	---
	05/20/03	137.13	3182.17	----	---	---	---
	11/24/03	136.71	3182.59	----	---	---	---
	05/11/04	136.77	3182.53	----	---	---	---
	11/15/04	136.82	3182.48	----	---	---	---
	05/17/05	136.34	3182.96	----	---	---	---
	11/15/05	136.95	3182.35	----	---	---	---
	05/08/06	136.65	3182.65	----	---	---	---
	11/13/06	136.59	3182.71	----	---	---	---
	05/29/07	136.68	3182.62	----	---	---	---
	11/15/07	136.61	3182.69	----	---	---	---
	05/15/08	136.65	3182.65	----	---	---	---
	11/03/08	136.60	3182.70	----	---	---	---
	05/19/09	136.60	3182.70	----	---	---	---
	11/02/09	136.60	3182.70	----	---	---	---
	05/05/10	136.44	3182.86	----	---	---	---
	11/08/10	136.58	3182.72	----	---	---	---
	05/11/11	136.62	3182.68	----	---	---	---
	11/08/11	136.57	3182.73	----	---	---	---
	05/16/12	136.44	3182.86	----	---	---	---
	10/10/12	136.91	3182.39	----	---	---	---
	05/16/13	136.51	3182.79	----	---	---	---
	10/07/13	136.55	3182.75	----	---	---	---
	05/01/14	136.37	3182.93	----	---	---	---
	10/05/14	136.42	3182.88	----	---	---	---
	05/21/15	136.40	3182.90	----	---	---	---
	10/19/15	136.41	3182.89	----	---	---	---
	05/25/16	136.40	3182.90	160.55	---	---	---
	10/17/16	136.33	3182.97	161.57	---	---	---
	05/10/17	136.34	3182.96	143.71	---	---	---
3321.12	10/24/17	136.28	3184.84	161.67	---	---	---
	05/22/18	130.07	3191.05	----	---	---	---
	10/15/18	136.34	3184.78	----	---	---	---
	06/20/19	136.28	3184.84	160.72	---	---	---
	11/20/19	136.36	3184.76	160.71	---	---	---
	04/15/20	136.23	3184.89	159.94	---	---	---
	10/12/20	136.56	3184.56	160.95	---	---	---
	06/22/21	136.37	3184.75	161.37	---	---	---
	12/06/21	136.29	3184.83	160.82	---	---	---
	08/22/22	136.25	3184.87	161.37	---	---	---
	12/21/22	136.11	3185.01	160.94	---	---	---
	07/20/23	136.31	3184.81	160.79	---	---	---
	11/13/23	136.22	3184.90	160.97	---	---	---
	07/30/24	136.18	3184.94	160.98	---	---	---
	11/12/24	136.18	3184.94	160.98	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-11	03/23/99	131.12	3178.57	----	140.00	4.00	125-140
3309.69	05/25/99	130.91	3178.78	----	---	---	---
	02/08/01	130.11	3179.58	----	---	---	---
	05/10/02	135.60	3174.09	----	---	---	---
	10/22/02	130.76	3178.93	----	---	---	---
	05/20/03	131.03	3178.66	----	---	---	---
	11/24/03	130.57	3179.12	----	---	---	---
	05/11/04	130.61	3179.08	----	---	---	---
	11/15/04	130.65	3179.04	----	---	---	---
	05/17/05	131.56	3178.13	----	---	---	---
	11/15/05	130.70	3178.99	----	---	---	---
	05/08/06	130.41	3179.28	----	---	---	---
	11/13/06	130.42	3179.27	----	---	---	---
	05/29/07	130.52	3179.17	----	---	---	---
	11/14/07	130.42	3179.27	----	---	---	---
	05/15/08	130.46	3179.23	----	---	---	---
	11/03/08	130.41	3179.28	----	---	---	---
	05/19/09	130.40	3179.29	----	---	---	---
	11/02/09	130.40	3179.29	----	---	---	---
	05/05/10	130.43	3179.26	----	---	---	---
	11/08/10	130.28	3179.41	----	---	---	---
	05/11/11	130.40	3179.29	----	---	---	---
	11/08/11	130.37	3179.32	----	---	---	---
	05/16/12	130.23	3179.46	----	---	---	---
	10/10/12	130.49	3179.20	----	---	---	---
	05/16/13	130.27	3179.42	----	---	---	---
	10/07/13	130.12	3179.57	----	---	---	---
	05/01/14	130.21	3179.48	----	---	---	---
	10/05/14	130.16	3179.53	----	---	---	---
	05/21/15	130.17	3179.52	----	---	---	---
	10/19/15	130.20	3179.49	----	---	---	---
	05/25/16	130.17	3179.52	165.42	---	---	---
	10/17/16	130.02	3179.67	165.87	---	---	---
	05/10/17	130.09	3179.60	164.91	---	---	---
3311.56	10/24/17	130.14	3181.42	165.74	---	---	---
	05/22/18	130.07	3181.49	----	---	---	---
	10/17/18	130.09	3181.47	----	---	---	---
	06/20/19	130.13	3181.43	165.71	---	---	---
	11/20/19	130.04	3181.52	172.30	---	---	---
	04/15/20	130.06	3181.50	165.50	---	---	---
	10/12/20	130.19	3181.37	165.51	---	---	---
	06/22/21	130.03	3181.53	167.12	---	---	---
	12/06/21	129.99	3181.57	165.53	---	---	---
	08/22/22	129.95	3181.61	167.12	---	---	---
	12/21/22	129.82	3181.74	165.51	---	---	---
	07/21/23	130.05	3181.51	166.98	---	---	---
	11/13/23	129.89	3181.67	167.02	---	---	---
	07/31/24	129.97	3181.59	165.48	---	---	---
	11/12/24	129.85	3181.71	165.5	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-12*	05/10/02	139.57	3188.86	----	171.65	4.00	157-172
3328.43	10/22/02	139.73	3188.70	----	---	---	---
	05/20/03	139.72	3188.71	----	---	---	---
	11/24/03	139.69	3188.74	----	---	---	---
	05/11/04	139.64	3188.79	----	---	---	---
	11/15/04	139.68	3188.75	----	---	---	---
	05/17/05	139.58	3188.85	----	---	---	---
	11/15/05	139.83	3188.60	----	---	---	---
	05/08/06	139.55	3188.88	----	---	---	---
	11/13/06	139.53	3188.90	----	---	---	---
	05/29/07	139.65	3188.78	----	---	---	---
	11/16/07	139.05	3189.38	----	---	---	---
	05/14/08	139.69	3188.74	----	---	---	---
	11/03/08	139.61	3188.82	----	---	---	---
	05/19/09	139.59	3188.84	----	---	---	---
	11/02/09	139.62	3188.81	----	---	---	---
	05/05/10	139.66	3188.77	----	---	---	---
	11/08/10	139.55	3188.88	----	---	---	---
	05/11/11	139.04	3189.39	----	---	---	---
	11/08/11	139.68	3188.75	----	---	---	---
	05/16/12	139.65	3188.78	----	---	---	---
	10/10/12	139.95	3188.48	----	---	---	---
	05/16/13	139.67	3188.76	----	---	---	---
	10/07/13	139.50	3188.93	----	---	---	---
	05/01/14	139.58	3188.85	----	---	---	---
	10/05/14	139.56	3188.87	----	---	---	---
	05/21/15	139.65	3188.78	----	---	---	---
	10/19/15	139.65	3188.78	----	---	---	---
	05/25/16	139.71	3188.72	171.00	---	---	---
	10/17/16	139.45	3188.98	171.20	---	---	---
	05/10/17	139.61	3188.82	171.80	---	---	---
3330.33	10/24/17	139.72	3190.61	171.67	---	---	---
	05/22/18	139.59	3190.74	----	---	---	---
	10/17/18	139.68	3190.65	----	---	---	---
	06/20/19	139.72	3190.61	171.02	---	---	---
	11/20/19	139.65	3190.68	174.57	---	---	---
	04/13/20	139.78	3190.55	169.81	---	---	---
	10/12/20	139.88	3190.45	171.08	---	---	---
	06/22/21	139.61	3190.72	170.85	---	---	---
	12/06/21	139.64	3190.69	170.94	---	---	---
	08/22/22	139.63	3190.70	170.85	---	---	---
	12/21/22	139.55	3190.78	171.41	---	---	---
	07/21/23	139.81	3190.52	171.00	---	---	---
	11/13/23	139.62	3190.71	172.07	---	---	---
	07/31/24	139.68	3190.65	171.34	---	---	---
	11/12/24	139.59	3190.74	171.35	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-13*	05/10/02	144.45	3194.04	----	171.65	4.00	157-172
3338.49	10/22/02	144.49	3194.00	----	---	---	---
	05/20/03	144.90	3193.59	----	---	---	---
	11/24/03	144.37	3194.12	----	---	---	---
	05/11/04	144.47	3194.02	----	---	---	---
	11/15/04	144.56	3193.93	----	---	---	---
	05/17/05	144.36	3194.13	----	---	---	---
	11/15/05	144.60	3193.89	----	---	---	---
	05/08/06	144.29	3194.20	----	---	---	---
	11/13/06	144.38	3194.11	----	---	---	---
	05/29/07	144.54	3193.95	----	---	---	---
	11/16/07	144.54	3193.95	----	---	---	---
	05/14/08	144.45	3194.04	----	---	---	---
	11/03/08	144.36	3194.13	----	---	---	---
	05/19/09	144.51	3193.98	----	---	---	---
	11/02/09	144.35	3194.14	----	---	---	---
	05/05/10	144.39	3194.10	----	---	---	---
	11/08/10	144.40	3194.09	----	---	---	---
	05/11/11	144.60	3193.89	----	---	---	---
	11/08/11	144.74	3193.75	----	---	---	---
	05/16/12	144.70	3193.79	----	---	---	---
	10/10/12	144.82	3193.67	----	---	---	---
	05/16/13	144.70	3193.79	----	---	---	---
	10/07/13	144.60	3193.89	----	---	---	---
	05/01/14	144.53	3193.96	----	---	---	---
	10/05/14	144.70	3193.79	----	---	---	---
	05/21/15	144.78	3193.71	----	---	---	---
	10/19/15	144.75	3193.74	----	---	---	---
	05/25/16	144.87	3193.62	170.52	---	---	---
	10/17/16	144.54	3193.95	170.43	---	---	---
	05/10/17	144.66	3193.83	171.04	---	---	---
	07/11/17	Well Plugged and Abandonded on 7/11/2017					
MW-14	10/07/13	134.60	3182.24	----	171.50	4.00	131-171
3316.84	05/01/14	134.51	3182.33	----	---	---	---
	10/05/14	134.44	3182.40	----	---	---	---
	05/21/15	134.31	3182.53	----	---	---	---
	10/19/15	134.49	3182.35	----	---	---	---
	05/25/16	134.42	3182.42	173.76	---	---	---
	10/17/16	134.30	3182.54	174.60	---	---	---
	05/10/17	134.35	3182.49	173.03	---	---	---
3318.36	10/24/17	134.30	3184.06	174.50			
	05/22/18	134.32	3184.04	----	---	---	---
	10/15/18	134.41	3183.95	----	---	---	---
	06/20/19	134.78	3183.58	178.74	---	---	---
	11/20/19	130.48	3187.88	178.42	---	---	---
	04/15/20	134.29	3184.07	173.39	---	---	---
	10/12/20	134.60	3183.76	173.25	---	---	---
	06/23/21	134.36	3184.00	175.56	---	---	---
	12/06/21	134.42	3183.94	173.73	---	---	---
	08/22/22	134.19	3184.17	175.56	---	---	---
	12/21/22	134.14	3184.22	173.48	---	---	---
	07/20/23	134.33	3184.03	174.49	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
	11/13/23	134.40	3183.96	174.51	---	---	---
	07/30/24	134.22	3184.14	174.62	---	---	---
	11/12/24	134.23	3184.13	174.33	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
RW-1	05/21/99	134.32	3184.18	----	175.00	5.00	130-174
3318.50	05/25/99	134.24	3184.26	----	---	---	---
	02/08/01	134.15	3184.35	----	---	---	---
	05/10/02	134.00	3184.50	----	---	---	---
	10/22/02	134.17	3184.33	----	---	---	---
	05/20/03	134.40	3184.10	----	---	---	---
	11/24/03	134.02	3184.48	----	---	---	---
	05/11/04	134.01	3184.49	----	---	---	---
	11/15/04	134.06	3184.44	----	---	---	---
	05/17/05	133.97	3184.53	----	---	---	---
	11/15/05	134.20	3184.30	----	---	---	---
	05/08/06	133.93	3184.57	----	---	---	---
	11/13/06	133.92	3184.58	----	---	---	---
	05/29/07	134.00	3184.50	----	---	---	---
	11/15/07	133.88	3184.62	----	---	---	---
	05/14/08	133.98	3184.52	----	---	---	---
	11/03/08	133.99	3184.51	----	---	---	---
	05/19/09	133.92	3184.58	----	---	---	---
	11/02/09	134.00	3184.50	----	---	---	---
	05/05/10	134.03	3184.47	----	---	---	---
	11/08/10	133.81	3184.69	----	---	---	---
	05/11/11	133.83	3184.67	----	---	---	---
	11/08/11	133.88	3184.62	----	---	---	---
	05/16/12	133.84	3184.66	----	---	---	---
	10/10/12	135.01	3183.49	----	---	---	---
	05/16/13	133.85	3184.65	----	---	---	---
	10/07/13	133.68	3184.82	----	---	---	---
	05/01/14	133.91	3184.59	----	---	---	---
	10/05/14	133.64	3184.86	----	---	---	---
	05/21/15	133.73	3184.77	----	---	---	---
	10/19/15	133.73	3184.77	----	---	---	---
	05/25/16	133.73	3184.77	162.63	---	---	---
	10/17/16	133.80	3184.70	163.54	---	---	---
	05/10/17	133.67	3184.83	162.15	---	---	---
3320.31	10/25/17	133.80	3186.51	162.70	---	---	---
	05/22/18	133.61	3186.70	----	---	---	---
	10/16/18	133.76	3186.55	----	---	---	---
	06/20/19	133.64	3186.67	164.03	---	---	---
	11/20/19	133.63	3186.68	163.79	---	---	---
	04/15/20	133.68	3186.63	161.65	---	---	---
	10/12/20	133.95	3186.36	162.20	---	---	---
	06/21/21	133.84	3186.47	162.85	---	---	---
	12/06/21	133.74	3186.57	162.36	---	---	---
	08/22/22	133.69	3186.62	162.85	---	---	---
	12/21/22	133.52	3186.79	162.33	---	---	---
	07/20/23	133.71	3186.60	165.46	---	---	---
	11/13/23	133.64	3186.67	162.15	---	---	---
	07/30/24	133.61	3186.70	163.88	---	---	---
	11/12/24	133.58	3186.73	163.90	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
RW-2	02/08/01	135.58	3183.04	----	160.00	5.00	134-173
3318.62	05/10/02	135.55	3183.07	----	---	---	---
	10/22/02	135.55	3183.07	----	---	---	---
	05/20/03	135.58	3183.04	----	---	---	---
	11/24/03	135.54	3183.08	----	---	---	---
	05/11/04	135.48	3183.14	----	---	---	---
	11/15/04	135.43	3183.19	----	---	---	---
	05/17/05	135.46	3183.16	----	---	---	---
	11/15/05	135.65	3182.97	----	---	---	---
	05/08/06	135.42	3183.20	----	---	---	---
	11/13/06	135.47	3183.15	----	---	---	---
	05/29/07	135.54	3183.08	----	---	---	---
	11/15/07	135.48	3183.14	----	---	---	---
	05/14/08	135.48	3183.14	----	---	---	---
	11/03/08	135.44	3183.18	----	---	---	---
	05/19/09	135.44	3183.18	----	---	---	---
	11/02/09	135.45	3183.17	----	---	---	---
	05/05/10	135.47	3183.15	----	---	---	---
	11/08/10	135.30	3183.32	----	---	---	---
	05/11/11	135.55	3183.07	----	---	---	---
	11/08/11	135.46	3183.16	----	---	---	---
	05/16/12	135.40	3183.22	----	---	---	---
	10/10/12	135.49	3183.13	----	---	---	---
	05/16/13	135.33	3183.29	----	---	---	---
	05/01/14	135.40	3183.22	----	---	---	---
	10/05/14	135.29	3183.33	----	---	---	---
	05/21/15	135.28	3183.34	----	---	---	---
	10/19/15	135.32	3183.30	----	---	---	---
	05/25/16	135.21	3183.41	157.33	---	---	---
	10/17/16	135.15	3183.47	157.20	---	---	---
	05/10/17	135.14	3183.48	155.68	---	---	---
3320.42	10/25/17	135.30	3185.12	156.70	---	---	---
	05/22/18	135.12	3185.30	----	---	---	---
	10/15/18	135.21	3185.21	----	---	---	---
	06/20/19	135.23	3185.19	156.50	---	---	---
	11/19/19	135.08	3185.34	172.60	---	---	---
	04/15/20	135.28	3185.14	155.60	---	---	---
	10/12/20	135.38	3185.04	155.95	---	---	---
	06/21/21	135.26	3185.16	155.86	---	---	---
	12/06/21	135.16	3185.26	154.14	---	---	---
	08/22/22	135.15	3185.27	155.86	---	---	---
	12/21/22	134.97	3185.45	155.99	---	---	---
	07/20/23	135.20	3185.22	156.26	---	---	---
	11/13/23	135.08	3185.34	156.01	---	---	---
	07/30/24	135.04	3185.38	157.46	---	---	---
	11/12/24	135.08	3185.34	157.48	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Total Depth (ft bgs)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
RW-2R	10/07/13	135.43	3183.19	----	173.00	6.00	133-173
3320.68	10/07/13	136.94	3183.74	----	---	---	---
	05/01/14	137.05	3183.63	----	---	---	---
	10/05/14	136.85	3183.83	----	---	---	---
	05/21/15	136.85	3183.83	----	---	---	---
	10/19/15	136.92	3183.76	----	---	---	---
	05/25/16	136.89	3183.79	176.55	---	---	---
	10/17/16	136.75	3183.93	176.00	---	---	---
	05/10/17	136.77	3183.91	177.00	---	---	---
3320.68	10/25/17	137.00	3183.68	176.61	---	---	---
	05/22/18	136.76	3183.92	----	---	---	---
	10/15/18	136.87	3183.81	----	---	---	---
	06/20/19	136.79	3183.89	176.82	---	---	---
	11/19/19	136.71	3183.97	188.97	---	---	---
	04/15/20	136.82	3183.86	176.40	---	---	---
	10/12/20	137.05	3183.63	176.45	---	---	---
	06/21/21	136.95	3183.73	176.22	---	---	---
	12/06/21	136.85	3183.83	176.57	---	---	---
	08/22/22	136.78	3183.90	176.22	---	---	---
	12/21/22	136.67	3184.01	176.34	---	---	---
	07/20/23	136.83	3183.85	180.85	---	---	---
	11/13/23	137.67	3183.01	178.66	---	---	---
	07/30/24	136.73	3183.95	180.36	---	---	---
	11/12/24	136.70	3183.98	180.37	---	---	---

Notes:
1. TOC - Top of Casing
2. ft bgs - feet below ground surface
3. in - inches
4. A - Indicates groundwater monitor well installed in shallow Uppermost Groundwater Bearing Unit.
5. MSL - Mean Sea Level
6. * - Indicates groundwater monitor well installed off-Site and upgradient of plume.
7. --- - Indicates information is the same as above
8. ---- - Indicates information not available
9. NS - Not sampled

Gauging Form
HES Transfer Site Name:Cooper Jal
Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

Monitoring Well ID	Date Gauged	DTW (ft btoc)	Total Depth (ft btoc)	Notes
MW-1	7-30-24	134.41	169.58	
MW-2	7-30-24	134.12	168.98	
MW-2A	7-30-24	134.18	142.19	
MW-3	7-30-24	132.06	172.27	
MW-4	7-30-24	135.15	171.77	
MW-4A	7-30-24	134.97	145.98	
MW-5	7-30-24	136.45	174.16	
MW-5A	7-30-24	136.53	144.22	
MW-6				P+A
MW-6R	7-30-24	139.48	177.55	
MW-7	7-30-24	135.39	163.88	
MW-8	7-30-24	133.60	146.76	
MW-9	7-31-24	131.83	161.71	
MW-9A	7-31-24	131.58	142.41	
MW-10	7-30-24	136.18	160.98	
MW-11	7-31-24	129.97	165.48	
MW-12	7-31-24	139.68	171.34	
MW-14	7-30-24	134.22	174.62	
RW-1	7-30-24	133.61	163.88	
RW-2	7-30-24	135.04	157.46	
RW-2R	7-30-24	136.73	180.36	

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	RW-1	**Date**	11/12/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	130 to 174	**Casing Diameter (in.)**	5	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	133.58	**Total Depth (ft-bmp)**	163.9	**Water Column (ft)**	30.32	**Gallons in Well**	30.79
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab

Sample Time	14:25	**Well Volumes Purged**	N/A	**Sample ID**	RW-1-W-20241112	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	DUP-1-W-20241112	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	RW-1-W-20241112	Sample Time:	14:25	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-12	**Date**	11/12/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	157 to 172	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	139.59	**Total Depth (ft-bmp)**	171.35	**Water Column (ft)**	31.76	**Gallons in Well**	5.16
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	12:30	**Well Volumes Purged**	N/A	**Sample ID**	MW-12-W-20241112	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW-12-W-20241112	Sample Time:	12:30	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-1	**Date**	11/12/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	153 to 173	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	134.36	**Total Depth (ft-bmp)**	169.59	**Water Column (ft)**	35.23	**Gallons in Well**	5.72
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	12:50	**Well Volumes Purged**	N/A	**Sample ID**	MW-1-W-20241112	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW-1-W-20241112	Sample Time:	12:50	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-2	**Date**	11/12/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	163 to 173	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	134.05	**Total Depth (ft-bmp)**	168.97	**Water Column (ft)**	34.92	**Gallons in Well**	5.67
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	13:15	**Well Volumes Purged**	N/A	**Sample ID**	MW-2-W-20241112	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW-2-W-20241112	Sample Time:	13:15	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-5	**Date**	11/12/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	161 to 171	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	136.39	**Total Depth (ft-bmp)**	174.17	**Water Column (ft)**	37.78	**Gallons in Well**	6.14
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	13:45	**Well Volumes Purged**	N/A	**Sample ID**	MW-5-W-20241112	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW-5-W-20241112	Sample Time:	13:45	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-4	**Date**	11/12/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	161 to 171	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	135.03	**Total Depth (ft-bmp)**	171.79	**Water Column (ft)**	36.76	**Gallons in Well**	5.97
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	14:00	**Well Volumes Purged**	N/A	**Sample ID**	MW-4-W-20241112	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW-4-W-20241112	Sample Time:	14:00	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	RW-2	**Date**	11/13/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	134 to 173	**Casing Diameter (in.)**	5	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	135.08	**Total Depth (ft-bmp)**	157.48	**Water Column (ft)**	22.4	**Gallons in Well**	22.75
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	10:00	**Well Volumes Purged**	N/A	**Sample ID**	RW-2-W-20241113	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	RW-2-W-20241113	Sample Time:	10:00	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	RW-2R	**Date**	11/13/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	133 to 173	**Casing Diameter (in.)**	6	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	136.7	**Total Depth (ft-bmp)**	180.37	**Water Column (ft)**	43.67	**Gallons in Well**	63.86
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	09:35	**Well Volumes Purged**	N/A	**Sample ID**	RW-2R-W-20241113	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	RW-2R-W-20241113	Sample Time:	09:35	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-10	**Date**	11/13/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	151 to 166	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	136.18	**Total Depth (ft-bmp)**	160.98	**Water Column (ft)**	24.8	**Gallons in Well**	4.03
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	10:30	**Well Volumes Purged**	N/A	**Sample ID**	MW-10-W-20241113	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW-10-W-20241113	Sample Time:	10:30	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-7	**Date**	11/13/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	151 to 166	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	135.33	**Total Depth (ft-bmp)**	163.92	**Water Column (ft)**	28.59	**Gallons in Well**	4.65
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	11:00	**Well Volumes Purged**	N/A	**Sample ID**	MW-7-W-20241113	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW-7-W-20241113	Sample Time:	11:00	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30230083	**Well ID**	MW-9	**Date**	11/13/2024		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	149 to 164	**Casing Diameter (in.)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	131.71	**Total Depth (ft-bmp)**	161.74	**Water Column (ft)**	30.03	**Gallons in Well**	4.88
Water Quality Meter Make/Model		**Purge Method**	No-Purge	**Collection Type**			Grab
Sample Time	11:30	**Well Volumes Purged**	N/A	**Sample ID**	MW9-W-20241113	**Purge Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--	**Sample Equipment**	HydraSleeve
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
	--			--	--		--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID:	MW9-W-20241113	Sample Time:	11:30	Sample Depth (ft-bmp) (e.g. pump intake):	0
Analytes and Methods:	See Chain-of-Custody.			Depth to Water at Time of Sampling	0

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

ANALYTICAL REPORT

August 20, 2024

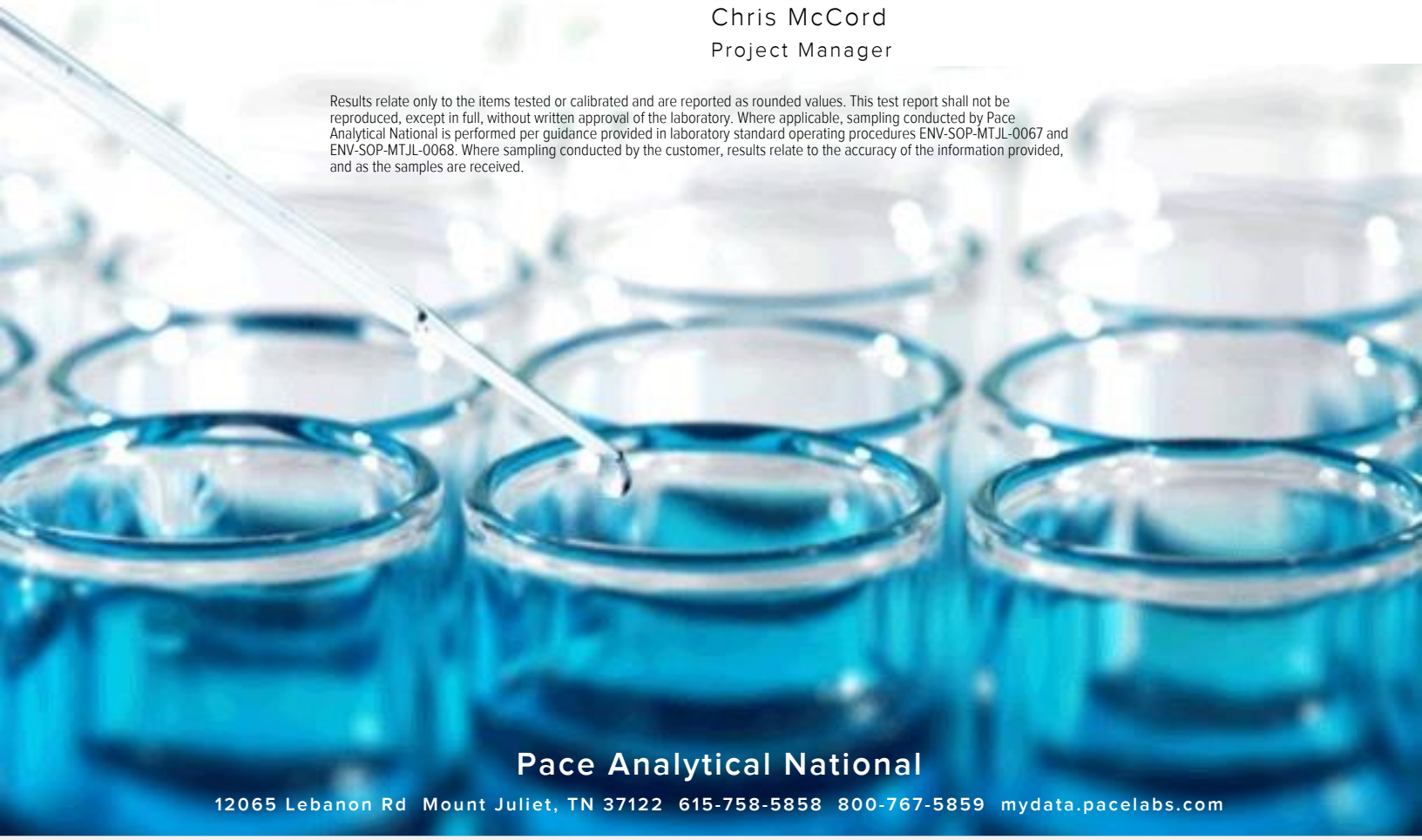
Arcadis - Chevron - NM

Sample Delivery Group:	L1762826
Samples Received:	08/02/2024
Project Number:	30230083 TASK 00002
Description:	UEM4822 - Cooper Jal
Site:	COOPER JAL
Report To:	Russell Grant 10205 Westheimer Rd. #800 Houston, TX 77042

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

MW-1-W-20240801 L1762826-01 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 09:40 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	5	08/02/24 13:52	08/02/24 13:52	DLH	Mt. Juliet, TN

MW-2-W-20240801 L1762826-02 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 10:20 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	1	08/02/24 14:02	08/02/24 14:02	DLH	Mt. Juliet, TN

MW-2A-W-20240801 L1762826-03 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 10:40 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	1	08/02/24 14:40	08/02/24 14:40	DLH	Mt. Juliet, TN

MW-6R-W-20240801 L1762826-04 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 11:00 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	1	08/02/24 15:09	08/02/24 15:09	DLH	Mt. Juliet, TN

MW-5-W-20240801 L1762826-05 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 11:35 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	10	08/02/24 15:18	08/02/24 15:18	DLH	Mt. Juliet, TN

MW-5A-W-20240801 L1762826-06 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 11:50 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	1	08/02/24 15:28	08/02/24 15:28	DLH	Mt. Juliet, TN

MW-4-W-20240801 L1762826-07 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 12:30 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	100	08/02/24 15:37	08/02/24 15:37	DLH	Mt. Juliet, TN

SAMPLE SUMMARY

MW-10-W-20240801 L1762826-08 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 13:20 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	5	08/02/24 15:47	08/02/24 15:47	DLH	Mt. Juliet, TN

MW-7-W-20240801 L1762826-09 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 13:50 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335186	1	08/02/24 12:52	08/03/24 14:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	100	08/02/24 16:15	08/02/24 16:15	DLH	Mt. Juliet, TN

MW-9-W-20240801 L1762826-10 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 14:50 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335186	1	08/02/24 12:52	08/03/24 14:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	10	08/02/24 16:25	08/02/24 16:25	DLH	Mt. Juliet, TN

MW-9A-W-20240801 L1762826-11 GW

Collected by: Daniel McGee | Collected date/time: 08/01/24 14:50 | Received date/time: 08/02/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335186	1	08/02/24 12:52	08/03/24 14:33	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335059	10	08/02/24 16:34	08/02/24 16:34	DLH	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1640		50.0	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	598		2.74	5.00	5	08/02/2024 13:52	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	672		13.3	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	116	J6	0.547	1.00	1	08/02/2024 14:02	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	522		10.0	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	107	J6	0.547	1.00	1	08/02/2024 14:40	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	480		10.0	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	76.9		0.547	1.00	1	08/02/2024 15:09	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2260		50.0	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	941		5.47	10.0	10	08/02/2024 15:18	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	609		10.0	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	161		0.547	1.00	1	08/02/2024 15:28	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	26500		400	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	10800		54.7	100	100	08/02/2024 15:37	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1180		20.0	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	344		2.74	5.00	5	08/02/2024 15:47	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	14800		200	1	08/03/2024 14:33	WG2335186

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5080		54.7	100	100	08/02/2024 16:15	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3060		50.0	1	08/03/2024 14:33	WG2335186

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1010		5.47	10.0	10	08/02/2024 16:25	WG2335059

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1030		20.0	1	08/03/2024 14:33	WG2335186

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	737		5.47	10.0	10	08/02/2024 16:34	WG2335059

Method Blank (MB)

(MB) R4103911-1 08/03/24 11:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1762758-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1762758-04 08/03/24 11:37 • (DUP) R4103911-3 08/03/24 11:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	18400	18500	1	0.434		10

L1762826-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1762826-08 08/03/24 11:37 • (DUP) R4103911-4 08/03/24 11:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1180	1170	1	0.493		10

Laboratory Control Sample (LCS)

(LCS) R4103911-2 08/03/24 11:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8470	96.3	85.0-115	

Method Blank (MB)

(MB) R4103920-1 08/03/24 14:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1762826-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1762826-09 08/03/24 14:33 • (DUP) R4103920-3 08/03/24 14:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	14800	14800	1	0.541		10

L1762932-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1762932-03 08/03/24 14:33 • (DUP) R4103920-4 08/03/24 14:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	333	337	1	1.19		10

Laboratory Control Sample (LCS)

(LCS) R4103920-2 08/03/24 14:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8510	96.7	85.0-115	

Method Blank (MB)

(MB) R4103206-1 08/02/24 13:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00

L1762826-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1762826-02 08/02/24 14:02 • (DUP) R4103206-3 08/02/24 14:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	116	116	1	0.0262		15

L1762826-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1762826-03 08/02/24 14:40 • (DUP) R4103206-6 08/02/24 14:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	107	108	1	0.844		15

Laboratory Control Sample (LCS)

(LCS) R4103206-2 08/02/24 13:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.7	96.6	90.0-110	

L1762826-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1762826-02 08/02/24 14:02 • (MS) R4103206-4 08/02/24 14:21 • (MSD) R4103206-5 08/02/24 14:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	116	133	133	42.9	42.1	1	90.0-110	J6	J6	0.253	15

L1762826-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1762826-03 08/02/24 14:40 • (MS) R4103206-7 08/02/24 14:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	107	126	47.3	1	90.0-110	J6

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Arcadis - Chevron - NM
10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Report to: **Russell Grant**

Email To: russell.grant@arcadis.com;sheila.hernandez@ar

Project Description: **UEM4822 - Cooper Jal**

City/State Collected: Jal, NM

Please Circle: PT MT (CT) ET

Phone: **916-786-5246**

Client Project # **30230083 TASK 00002**

Lab Project # **CHEVARCNM-COOPERJAL**

Collected by (print): Daniel McGee

Site/Facility ID # **COOPER JAL -UEM4822**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: standard

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

LN028260
1199

Acctnum: **CHEVARCNM**
Template: **T200378**
Prelogin: **P1088859**
PM: **526 - Chris McCord**
PB: LM 7/19/24
Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	SULFATE 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-1-W-20240801	G	GW		8-1-24	0940	2	X		X		-01
MW-2-W-20240801		GW			1020	2	X		X		-02
MW-2A-W-20240801		GW			1040	2	X		X		-03
MW-6R-W-20240801		GW			1100	2	X		X		-04
MW-5-W-20240801		GW			1135	2	X		X		-05
MW-5A-W-20240801		GW			1150	2	X		X		-06
MW-4-W-20240801		GW			1230	2	X		X		-07
MW-10-W-20240801		GW			1320	2	X		X		-08
MW-7-W-20240801		GW			~~1345~~ 1350	2	X		X		-09
MW-9-W-20240801	G	GW		8-1-24	1450	2	X		X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	8-1-24	1710		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	8-1-24	17:40		Multi 22
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				8/2/24 0800

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Company Name/Address:
Arcadis - Chevron - NM

10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Report to:
Russell Grant

Email To:
russell.grant@arcadis.com;sheila.hernandez@ar

Project Description:
UEM4822 - Cooper Jal

City/State Collected: **Jal, NM**

Please Circle: PT MT (CT) ET

Phone: **916-786-5246**

Client Project #
30230083 TASK 00002

Lab Project #
CHEVARCNM-COOPERJAL

Collected by (print):
Daniel McLee

Site/Facility ID #
COOPER JAL -UEM4822

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed
Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	SULFATE 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-2A-W-20240801	G	GW		8-1-24	1450	2	X		X		-11
		GW									
		GW									

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1760280

Table #

Acctnum: **CHEVARCNM**
Template: **T200378**
Prelogin: **P1088859**
PM: **526 - Chris McCord**
PB: **LM 7/19/24**
Shipped Via: **FedEx Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	8-1-24	1710	James Cobb
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
James Cobb	8/1/24	17:40	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: Ma Hi °C Bottles Received:

Date: 8/2/24 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

EOA9 U7628826

Tracking Numbers	Temperature
—	3.7 + .3 = 4.1
—	3.5 + .3 = 3.7

Name

8/2/24
Date

ANALYTICAL REPORT

August 26, 2024

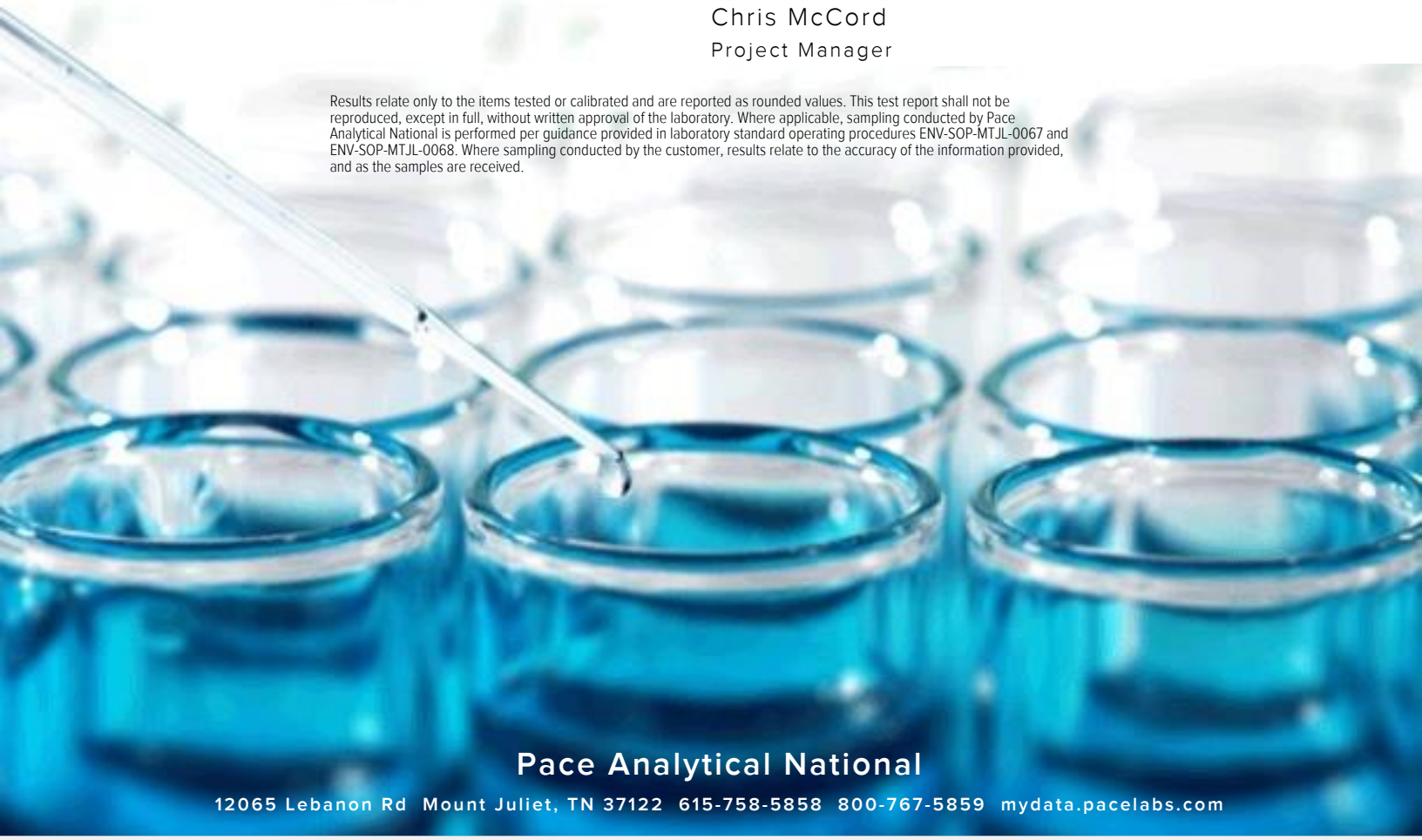
Arcadis - Chevron - NM

Sample Delivery Group:	L1762758
Samples Received:	08/01/2024
Project Number:	30230083 TASK 00002
Description:	UEM4822 - Cooper Jal
Site:	COOPER JAL-UEM4822
Report To:	Russell Grant 10205 Westheimer Rd. #800 Houston, TX 77042

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

RW-2R-W-20240731 L1762758-01 WW

Collected by: Daniel McGee | Collected date/time: 07/31/24 14:00 | Received date/time: 08/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2334887	1	08/03/24 09:10	08/03/24 09:11	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	10	08/04/24 08:56	08/04/24 08:56	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	100	08/04/24 09:11	08/04/24 09:11	BMD	Mt. Juliet, TN

RW-2-W-20240731 L1762758-02 GW

Collected by: Daniel McGee | Collected date/time: 07/31/24 14:30 | Received date/time: 08/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2334887	1	08/03/24 09:10	08/03/24 09:11	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	5	08/04/24 09:27	08/04/24 09:27	DLH	Mt. Juliet, TN

MW-14-W-20240731 L1762758-03 GW

Collected by: Daniel McGee | Collected date/time: 07/31/24 14:45 | Received date/time: 08/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2334887	1	08/03/24 09:10	08/03/24 09:11	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	1	08/04/24 10:15	08/04/24 10:15	DLH	Mt. Juliet, TN

DUP-2-W-20240731 L1762758-04 WW

Collected by: Daniel McGee | Collected date/time: 07/31/24 00:00 | Received date/time: 08/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	10	08/04/24 10:31	08/04/24 10:31	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	100	08/04/24 10:47	08/04/24 10:47	BMD	Mt. Juliet, TN

RW-1-W-20240731 L1762758-05 GW

Collected by: Daniel McGee | Collected date/time: 07/31/24 13:20 | Received date/time: 08/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	100	08/04/24 11:03	08/04/24 11:03	DLH	Mt. Juliet, TN

DUP-1-W-20240731 L1762758-06 GW

Collected by: Daniel McGee | Collected date/time: 07/31/24 00:00 | Received date/time: 08/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	100	08/04/24 11:19	08/04/24 11:19	DLH	Mt. Juliet, TN

MW-4A-W-20240731 L1762758-07 WW

Collected by: Daniel McGee | Collected date/time: 07/31/24 15:30 | Received date/time: 08/01/24 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2335184	1	08/02/24 12:46	08/03/24 11:37	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	1	08/04/24 11:35	08/04/24 11:35	JDG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2335055	5	08/04/24 11:51	08/04/24 11:51	BMD	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	20100		400	1	08/03/2024 09:11	WG2334887

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	7590		54.7	100	100	08/04/2024 09:11	WG2335055
Sulfate	845		6.37	50.0	10	08/04/2024 08:56	WG2335055

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3510		50.0	1	08/03/2024 09:11	WG2334887

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	533		2.74	5.00	5	08/04/2024 09:27	WG2335055

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	473		10.0	1	08/03/2024 09:11	WG2334887

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	61.4		0.547	1.00	1	08/04/2024 10:15	WG2335055

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	18400		400	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	8010		54.7	100	100	08/04/2024 10:47	WG2335055
Sulfate	881		6.37	50.0	10	08/04/2024 10:31	WG2335055

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	13900		400	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1540		54.7	100	100	08/04/2024 11:03	WG2335055

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	9820		200	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1680		54.7	100	100	08/04/2024 11:19	WG2335055

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1200		20.0	1	08/03/2024 11:37	WG2335184

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	422		2.74	5.00	5	08/04/2024 11:51	WG2335055
Sulfate	91.7		0.637	5.00	1	08/04/2024 11:35	WG2335055

Method Blank (MB)

(MB) R4103919-1 08/03/24 09:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1762596-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1762596-12 08/03/24 09:11 • (DUP) R4103919-3 08/03/24 09:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1470	1460	1	1.02		10

L1762758-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1762758-03 08/03/24 09:11 • (DUP) R4103919-4 08/03/24 09:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	473	468	1	1.06		10

Laboratory Control Sample (LCS)

(LCS) R4103919-2 08/03/24 09:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8770	99.7	85.0-115	

Method Blank (MB)

(MB) R4103911-1 08/03/24 11:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1762758-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1762758-04 08/03/24 11:37 • (DUP) R4103911-3 08/03/24 11:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	18400	18500	1	0.434		10

L1762826-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1762826-08 08/03/24 11:37 • (DUP) R4103911-4 08/03/24 11:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1180	1170	1	0.493		10

Laboratory Control Sample (LCS)

(LCS) R4103911-2 08/03/24 11:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8470	96.3	85.0-115	

Method Blank (MB)

(MB) R4103109-1 08/04/24 01:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00
Sulfate	U		0.637	5.00

L1762674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1762674-01 08/04/24 02:02 • (DUP) R4103109-3 08/04/24 02:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.96	8.15	1	2.28		15

L1762674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1762674-01 08/04/24 03:06 • (DUP) R4103109-6 08/04/24 03:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	233	230	5	1.10		15

L1762674-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1762674-02 08/04/24 03:37 • (DUP) R4103109-7 08/04/24 03:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7.71	7.69	1	0.248		15

L1762674-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1762674-02 08/04/24 04:25 • (DUP) R4103109-9 08/04/24 04:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	218	217	5	0.855		15

Laboratory Control Sample (LCS)

(LCS) R4103109-2 08/04/24 01:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.2	98.1	90.0-110	
Sulfate	40.0	39.1	97.7	90.0-110	

L1762674-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1762674-01 08/04/24 02:02 • (MS) R4103109-4 08/04/24 02:34 • (MSD) R4103109-5 08/04/24 02:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	7.96	45.7	45.8	94.3	94.5	1	90.0-110			0.224	15

L1762674-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1762674-02 08/04/24 03:37 • (MS) R4103109-8 08/04/24 04:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	7.71	45.3	94.1	1	90.0-110	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1762758
B128

Acctnum: CHEVARCNM
Template: T200378
Prelogin: P1088859
PM: 526 - Chris McCord
PB: LM 7/19/24
Shipped Via: FedEX Ground

Company Name/Address:
Arcadis - Chevron - NM
10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Email To: russell.grant@arcadis.com;sheila.hernandez@ar

Report to: Russell Grant

Project Description: UEM4822 - Cooper Jal

City/State Collected: Jal, NM

Please Circle: PT MT CT ET

Phone: 916-786-5246

Client Project # 30183400 task 0002

Lab Project # CHEVARCNM-COOPERJAL

Collected by (print): Daniel McKee

Site/Facility ID # COOPER JAL - UEM4822

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Standard

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	SULFATE 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
~~RW-1-W-20240731~~	G	GW		7-31-24	1320	3	X	X	X		
~~DUP-1-W-20240731~~	G	GW		7-31-24	—	3	X	X	X		
~~RW-2R-W-20240731~~	—	GW									
RW-2R-W-20240731	G	GW		7-31-24	1400	3	X	X	X		-01
RW-2-W-20240731	G	GW			1430	2	X		X		-02
MW-14-W-20240731	G	GW			1445	2	X		X		-03
DUP-2-W-20240731	G	GW		7-31-24	—	3	X	X	X		-04
RW-1-W-20240731	G	GW		7-31-24	1320	2	X		X		-05
DUP-1-W-20240731	G	GW		7-31-24	—	2	X		X		-06
MW-4A-W-20240731	G	GW		7-31-24	1530	3	X	X	X		-07

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

	Date:	Time:	
Relinquished by: (Signature)	7-31-24	1715	Received by: (Signature)
Relinquished by: (Signature)	7/31/24	17:45	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 0.1 °C Bottles Received: 17
1.4+0.2=1.7

Date: 8/1/24 Time: 0800

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Pace Analytical®

ANALYTICAL REPORT

August 20, 2024

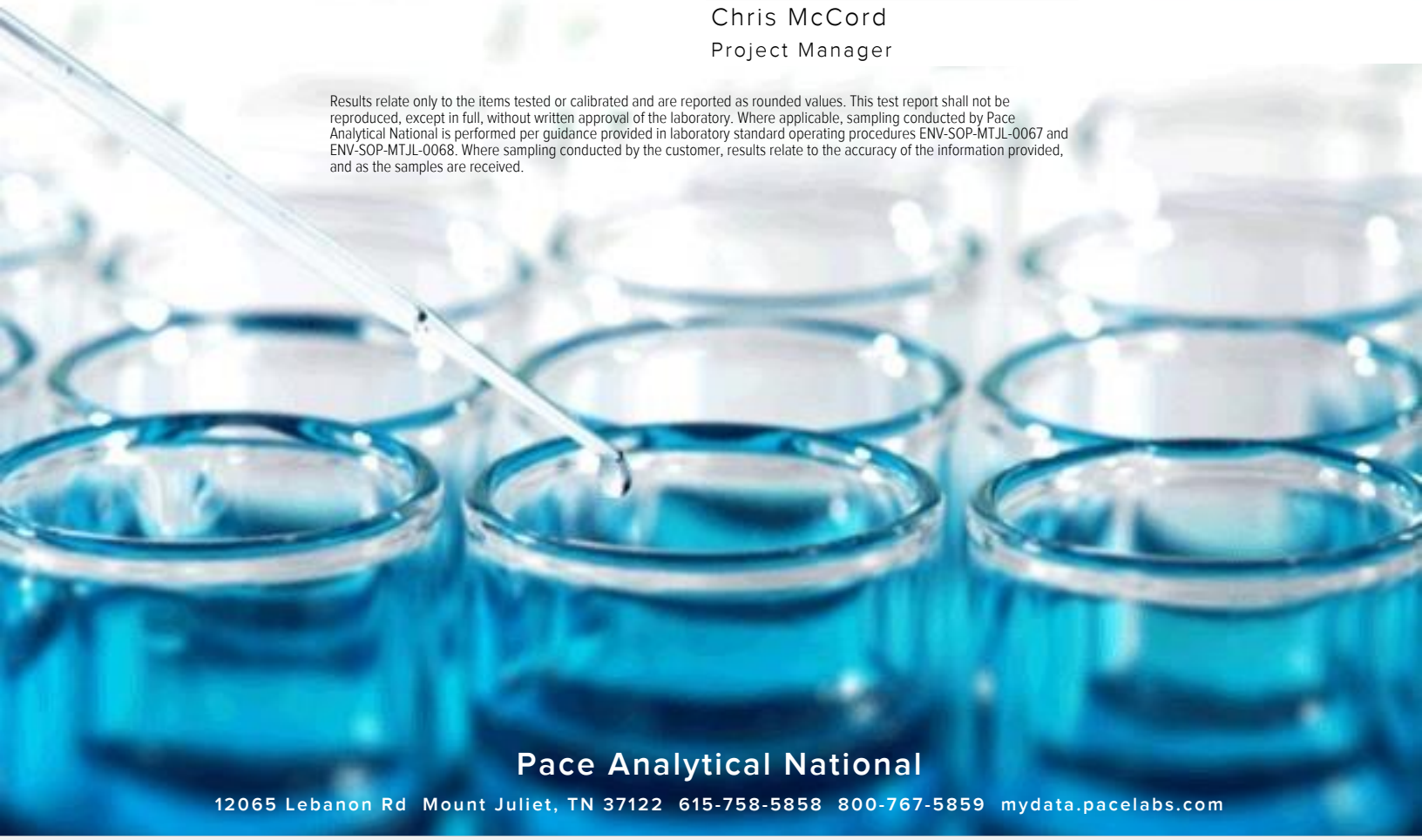
Arcadis - Chevron - NM

Sample Delivery Group:	L1763583
Samples Received:	08/03/2024
Project Number:	30183400 task 0002
Description:	UEM4822 - Cooper Jal
Site:	COOPER JAL
Report To:	Russell Grant 10205 Westheimer Rd. #800 Houston, TX 77042

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

MW-11-W-20240802 L1763583-01 GW

Collected by: Daniel McGee
Collected date/time: 08/02/24 10:00
Received date/time: 08/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2336630	1	08/05/24 14:59	08/06/24 11:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2336716	1	08/10/24 05:11	08/10/24 05:11	DLH	Mt. Juliet, TN

MW-8-W-20240802 L1763583-02 GW

Collected by: Daniel McGee
Collected date/time: 08/02/24 10:25
Received date/time: 08/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2336630	1	08/05/24 14:59	08/06/24 11:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2336716	1	08/10/24 05:24	08/10/24 05:24	DLH	Mt. Juliet, TN

MW-3-W-20240802 L1763583-03 GW

Collected by: Daniel McGee
Collected date/time: 08/02/24 10:50
Received date/time: 08/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2336630	1	08/05/24 14:59	08/06/24 11:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2336716	1	08/10/24 06:05	08/10/24 06:05	DLH	Mt. Juliet, TN

MW-12-W-20240802 L1763583-04 GW

Collected by: Daniel McGee
Collected date/time: 08/02/24 11:20
Received date/time: 08/03/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2336627	1	08/05/24 14:52	08/06/24 10:29	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2336716	5	08/10/24 06:18	08/10/24 06:18	DLH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	417		10.0	1	08/06/2024 11:59	WG2336630

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	35.1		0.547	1.00	1	08/10/2024 05:11	WG2336716

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	419		10.0	1	08/06/2024 11:59	WG2336630

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	34.9		0.547	1.00	1	08/10/2024 05:24	WG2336716

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	422		10.0	1	08/06/2024 11:59	WG2336630

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	33.5		0.547	1.00	1	08/10/2024 06:05	WG2336716

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1600		20.0	1	08/06/2024 10:29	WG2336627

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	404		2.74	5.00	5	08/10/2024 06:18	WG2336716

Method Blank (MB)

(MB) R4104562-1 08/06/24 10:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1763428-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1763428-01 08/06/24 10:29 • (DUP) R4104562-3 08/06/24 10:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	ND	ND	1	0.000		10

L1763583-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1763583-04 08/06/24 10:29 • (DUP) R4104562-4 08/06/24 10:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1600	1590	1	0.376		10

Laboratory Control Sample (LCS)

(LCS) R4104562-2 08/06/24 10:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8680	98.6	85.0-115	

Method Blank (MB)

(MB) R4104496-1 08/06/24 11:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1763434-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1763434-03 08/06/24 11:59 • (DUP) R4104496-3 08/06/24 11:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3780	3910	1	3.38		10

L1763621-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1763621-03 08/06/24 11:59 • (DUP) R4104496-4 08/06/24 11:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1800	1820	1	1.10		10

Laboratory Control Sample (LCS)

(LCS) R4104496-2 08/06/24 11:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8700	98.9	85.0-115	

Method Blank (MB)

(MB) R4106111-1 08/10/24 01:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00

L1763542-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1763542-01 08/10/24 02:15 • (DUP) R4106111-3 08/10/24 02:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	134	133	1	0.193		15

L1763542-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1763542-02 08/10/24 03:09 • (DUP) R4106111-6 08/10/24 03:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	107	107	1	0.364		15

Laboratory Control Sample (LCS)

(LCS) R4106111-2 08/10/24 02:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	37.1	92.7	80.0-120	

L1763542-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1763542-01 08/10/24 02:15 • (MS) R4106111-4 08/10/24 02:42 • (MSD) R4106111-5 08/10/24 02:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	134	146	145	32.1	28.2	1	80.0-120	J6	J6	1.08	15

L1763542-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1763542-02 08/10/24 03:09 • (MS) R4106111-7 08/10/24 03:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	107	125	45.2	1	80.0-120	J6

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Arcadis - Chevron - NM
10205 Westheimer Rd.
#800
Houston, TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Report to: Russell R Grant

Email To: russell.grant@arcadis.com, sherla.hernandez@arcadis.com

Project Description: UEM4822 - Cooper Jal

City/State Collected: Jal, NM

Phone: 916-786-5246
Fax:

Client Project # 30230083 Task 00007

Lab Project # chevarcnm - cooperjal

Collected by (print): Daniel Milee

Site/Facility ID # cooper Jal - UEM4822

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: standard

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 176 5583

F071

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Chloride 125 ml HDPE - No Pres	TDS 250 ml HDPE - No Pres	Remarks	Sample # (lab only)
MW-11-W-20240802	G	GW		8-2-24	1000	2	X	X		-01
MW-8-W-20240802	"	"		"	1025	2	X	X		-02
MW-3-W-20240802	"	"		"	1050	2	X	X		-03
MW-12-W-20240802	G	GW		8-2-24	~~1020~~ 1100	2	X	X		-04

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7359 4591 0396

Sample Receipt Checklist
COC Seal Present/Intact: X NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	8-2-24	3:00		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.4 °C Bottles Received: 8
James Colato	8/2/24	3:20		4.4+1.3=4.7
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Charles Stevenson	8-3-24 9:00

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

ANALYTICAL REPORT

November 22, 2024

Arcadis - Chevron - NM

Sample Delivery Group:	L1799867
Samples Received:	11/14/2024
Project Number:	30183400 task 0002
Description:	UEM4822 - Cooper Jal
Site:	COOPER JAL
Report To:	Russell Grant 10205 Westheimer Rd. #800 Houston, TX 77042

Entire Report Reviewed By:

Haley Torrence
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

MW-12-W-20241112 L1799867-01 GW

Collected by: Daniel McGee | Collected date/time: 11/12/24 12:30 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	10	11/19/24 02:12	11/19/24 02:12	ZSA	Mt. Juliet, TN

MW-1-W-20241112 L1799867-02 GW

Collected by: Daniel McGee | Collected date/time: 11/12/24 12:50 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	100	11/19/24 02:21	11/19/24 02:21	ZSA	Mt. Juliet, TN

MW-2-W-20241112 L1799867-03 GW

Collected by: Daniel McGee | Collected date/time: 11/12/24 13:15 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	5	11/19/24 02:31	11/19/24 02:31	ZSA	Mt. Juliet, TN

MW-5-W-20241112 L1799867-04 GW

Collected by: Daniel McGee | Collected date/time: 11/12/24 13:45 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	50	11/19/24 02:40	11/19/24 02:40	ZSA	Mt. Juliet, TN

MW-4-W-20241112 L1799867-05 GW

Collected by: Daniel McGee | Collected date/time: 11/12/24 14:00 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	500	11/20/24 23:16	11/20/24 23:16	DLH	Mt. Juliet, TN

RW-1-W-20241112 L1799867-06 GW

Collected by: Daniel McGee | Collected date/time: 11/12/24 14:25 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	50	11/19/24 02:59	11/19/24 02:59	ZSA	Mt. Juliet, TN

DUP-1-W-20241112 L1799867-07 GW

Collected by: Daniel McGee | Collected date/time: 11/12/24 00:00 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	100	11/19/24 03:09	11/19/24 03:09	ZSA	Mt. Juliet, TN

RW-2R-W-20241113 L1799867-08 GW

Collected by: Daniel McGee | Collected date/time: 11/13/24 09:35 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	100	11/19/24 03:19	11/19/24 03:19	ZSA	Mt. Juliet, TN

RW-2-W-20241113 L1799867-09 GW

Collected by: Daniel McGee | Collected date/time: 11/13/24 10:00 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	10	11/19/24 03:28	11/19/24 03:28	ZSA	Mt. Juliet, TN

MW-10-W-20241113 L1799867-10 GW

Collected by: Daniel McGee | Collected date/time: 11/13/24 10:30 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	5	11/19/24 03:38	11/19/24 03:38	ZSA	Mt. Juliet, TN

MW-7-W-20241113 L1799867-11 GW

Collected by: Daniel McGee | Collected date/time: 11/13/24 11:00 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	100	11/19/24 04:06	11/19/24 04:06	ZSA	Mt. Juliet, TN

MW-9-W-20241113 L1799867-12 GW

Collected by: Daniel McGee | Collected date/time: 11/13/24 11:30 | Received date/time: 11/14/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2402628	1	11/17/24 10:40	11/17/24 12:24	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2402330	50	11/19/24 04:16	11/19/24 04:16	ZSA	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Haley Torrence

Haley Torrence
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1560		20.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	504		5.47	10.0	10	11/19/2024 02:12	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2290		50.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	768		54.7	100	100	11/19/2024 02:21	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	596		13.3	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	152		2.74	5.00	5	11/19/2024 02:31	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2310		50.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	921		27.4	50.0	50	11/19/2024 02:40	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	22900		400	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	13400		274	500	500	11/20/2024 23:16	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	4280		100	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2220		27.4	50.0	50	11/19/2024 02:59	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	6980		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5890		54.7	100	100	11/19/2024 03:09	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	18600		400	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	8080		54.7	100	100	11/19/2024 03:19	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1370		20.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	747		5.47	10.0	10	11/19/2024 03:28	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1090		20.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	336		2.74	5.00	5	11/19/2024 03:38	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	15500		200	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5500		54.7	100	100	11/19/2024 04:06	WG2402330

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3300		50.0	1	11/17/2024 12:24	WG2402628

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1040		27.4	50.0	50	11/19/2024 04:16	WG2402330

Method Blank (MB)

(MB) R4147670-1 11/17/24 12:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1799799-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1799799-15 11/17/24 12:24 • (DUP) R4147670-3 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1630	1690	1	3.32		10

L1800186-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1800186-04 11/17/24 12:24 • (DUP) R4147670-4 11/17/24 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	7460	7480	1	0.268		10

Laboratory Control Sample (LCS)

(LCS) R4147670-2 11/17/24 12:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8740	99.3	85.0-115	

Method Blank (MB)

(MB) R4147986-1 11/19/24 01:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00

L1799964-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1799964-01 11/19/24 04:25 • (DUP) R4147986-3 11/19/24 04:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	77.8	78.2	1	0.577		15

L1799964-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1799964-04 11/19/24 05:13 • (DUP) R4147986-5 11/19/24 05:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	35.6	35.3	1	0.672		15

Laboratory Control Sample (LCS)

(LCS) R4147986-2 11/19/24 02:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.6	90.0-110	

L1799964-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1799964-01 11/19/24 04:25 • (MS) R4147986-4 11/19/24 04:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	77.8	102	60.9	1	90.0-110	E J6

L1799964-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1799964-04 11/19/24 05:13 • (MS) R4147986-6 11/19/24 05:32 • (MSD) R4147986-7 11/19/24 05:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	35.6	68.0	67.5	81.2	79.8	1	90.0-110	J6	J6	0.831	15

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Arcadis - Chevron - NM

10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Arcadis, US. Inc.
630 Plaza Drive, Suite 200
Highlands Ranch, CO 80129

Pres Chk

Report to:
Russell Grant

Email To:
russell.grant@arcadis.com;sheila.hernandez@ar

Project Description:
UEM4822 - Cooper Jal

City/State Collected: Sol NM

Please Circle: PT MT (CT) ET

Phone: **916-786-5246**

Client Project #
30183400 task 0002

Lab Project #
CHEVARCNM-COOPERJAL

Collected by (print):
Daniel McGee

Site/Facility ID #
COOPER JAL

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed
Standard

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-12-W-20241112	G	GW		11-12-24	1230	2	X	X		-01
MW-1-W-20241112		GW			1250	2	X	X		-02
MW-2-W-20241112		GW			1315	2	X	X		-03
MW-5-W-20241112		GW			1345	2	X	X		-04
MW-4-W-20241112		GW			1400	2	X	X		-05
RW-1-W-20241112		GW			1425	2	X	X		-06
DUP-1-W-20241112		GW		11-12-24	—	2	X	X		-07
RW-2R-W-20241113		GW		11-13-24	0935	2	X	X		-08
RW-2-W-20241113		GW		"	1000	2	X	X		-09
MW-10-W-20241113	G	GW		11-13-24	1030	2	X	X		-10

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, Tn 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1799867

Tabl C133

Acctnum: **CHEVARCNM**
Template: **T263567**
Prelogin: **P1113142**
PM: **3842 - Haley Torrence**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 642683085233

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	11-13-24	1420		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	11/13/24	1455		KA92300523 DM
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				11/14/24 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF (OK)

Company Name/Address:
Arcadis - Chevron - NM
10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Arcadis, US. Inc.
630 Plaza Drive, Suite 200
Highlands Ranch, CO 80129

Report to: **Russell Grant**

Email To: **russell.grant@arcadis.com;sheila.hernandez@ar**

Project Description: **UEM4822 - Cooper Jal**

City/State Collected: Jal, NM

Please Circle: PT MT CT ET

Phone: **916-786-5246**

Client Project # **30230083 TASK 00002**

Lab Project # **CHEVARCNM-COOPERJAL**

Collected by (print): Daniel McBee

Site/Facility ID # **COOPER JAL**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-7-W-20241113	G	GW		11-13-24	1100	2	X	X		-11
~~MW-10 MW-11~~		GW				2	X	X		
MW-9-W-20241113	G	GW		11-13-24	1130	2	X	X		-12

Rad 11-13-24

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1799867

Table #

Acctnum: **CHEVARCNM**
Template: **T263567**
Prelogin: **P1113142**
PM: **3842 - Haley Torrence**
PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 6426 83685233

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	11-13-24	1420		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	11/13/24	1455		TC#92350223 24
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				11/14/24 0900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 447973
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
jburdine	Review of the Cooper Jal 2024 Annual Groundwater Monitoring Report: Content Satisfactory 1. Continue to conduct groundwater monitoring at the site on a semi-annual basis, following the SAP approved by NMOCD. 2. Proceed with further evaluation as needed for analyses results for MW-4, MW-5, MW-5A, MW-14, RW-2 3. Provide findings from evaluations and recommendations for path forward in the 2025 annual report. 4. Submit the 2025 Annual Groundwater Monitoring Report by April 1, 2026.	6/6/2025